

INTERNATIONAL RESEARCH FELLOWS ASSOCIATION'S RESEARCH JOURNEY

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June- 2022



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Nagpur, (MS) India.

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Nanomaterials in Medicine and Pharmaceuticals : With Less Toxicity and More Efficacies

Rohit Srivastava*, M R Tanveer

Assistant Professor*

Electrochemistry Research Lab, Department of Chemistry*

St. Andrew's College Gorakhpur. 273001. (U.P). India

Abstract:

have unique physiochemical and biological properties, such as high surface area to mass ratio, micro size, high degree of reactivity and efficiency in comparison to their bulk counterparts having the same composition and basic formulae. These features have been used to overcome any limitations persistent with traditional therapeutic and diagnostic methods. The application of nanomaterials in medicine and pharmaceuticals is a novel field which has great future potential. In this review, we will present an overview on nanomaterial developments with high degree of efficiency and low degree of toxicity. These materials are found to be of great importance in the field of imaging, diagnosis, disease therapy, drug delivery, tissue engineering. In recent years these materials have emerged as an important player in the diagnosis and treatment of different critical diseases. However there are some instances where nanomaterials cannot perform at their saturation limit nor have high degree of toxicity, but in spite of all these demerits nanomaterials are ready to play crucial role in the field of medicines. Nanomaterials can be applied in nanomedicine for medical purposes primarily in three different areas: diagnosis, drug delivery and regenerative medicine. A new domain which combines analytic and therapy termed theranostics is emerging and is a hopeful approach which holds in the same system both as the diagnosis agent and the medicine.

Keywords: nanomaterials, medicine, efficacy, pharmaceuticals, diagnostic agents

Introduction:

Nanostructure materials have unique physical, chemical, biological, mechanical and electrical properties. Hence they have wide application in medicinal and pharmacy industries. They have the potential to act as sensitive agent for the precise diagnosis, imaging and treatment of many diseases like cancer, bronchitis, arthritis, diabetes and dreaded infections. In the last few years a number of nanoparticle based diagnostic agents have been developed which provides more effective and convenient ways of health care. However there is some concern regarding their limited use and toxicity on the basis of in vitro cell culture but it is expected that in coming years more potent nanomaterials will be synthesized with high degree of efficacy and less toxicity.

The applications of nanomaterials in medicine and pharmaceuticals have become a vital subject area which fuses generally all the branches of natural science. Many nanomaterial devices have been prepared like biological mimetic, scanning nano machines, drug delivery agents, nano fibers, biomaterials and polymeric constructs which are in use today. Thus the field is expanding with a very fast rate and has huge market in the coming decades. In this review, we will provide an overview on nanomedicines and diagnostic agents that have already advanced to clinical use or in vivo experimentation. Lastly the environmental and societal impact of the use of nanoparticles in modern medicine will also be discussed.

Developments in the medical devices industry

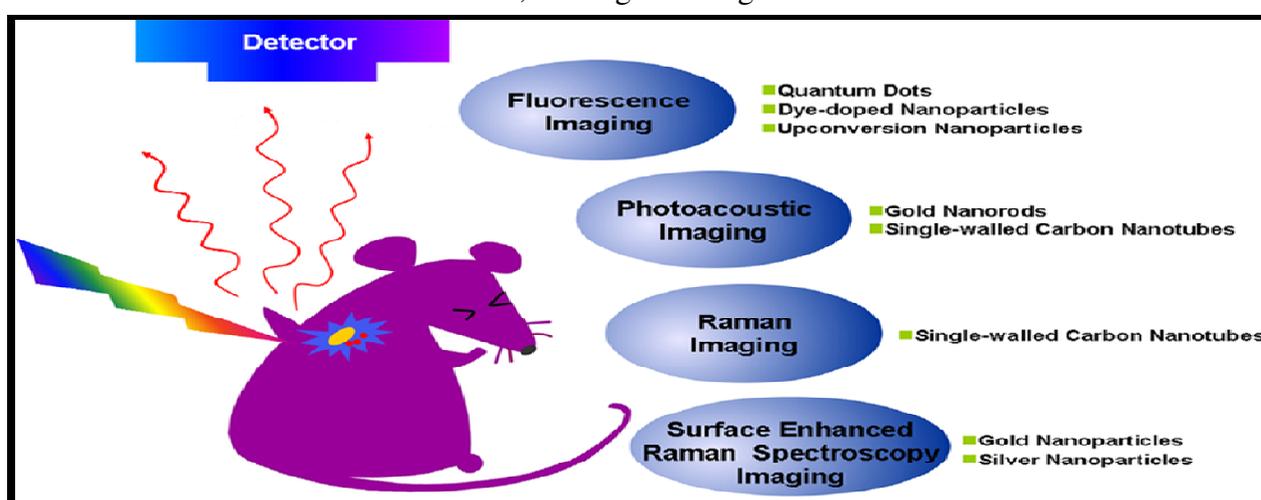
1. Optical Imaging (OI)

Nanoparticles can be designed so that they can enhance the contrast for different imaging techniques. It's an important procedure in the bio medical field due to its fine, sensitive and spatial resolutions. OI employs a sensitive camera to detect light from the targeting source/ fluorophore. Conventional fluorophore generally includes conjugated organic compounds, quantum dots, proteins, transition metal complexes, proteins and compounds doped with f block element like lanthanum (Ln). It can be enhanced either by luminescent particles or surface plasma resonance particles. Ultrasound imaging can be enhanced by using nano micro bubbles or nano droplets. Another important class of OI tool for in vivo fluorescence imaging is semiconductor nanocrystals comprised of elements from group 2 to 6 or 3 to 5 in the periodic table. These materials are highly effective for tumor imaging located in brain.

In order to study the effect of scattering when imaging tissues with light, diffuse optical tomography (DOT) was developed based on scanning a point source over the sample and measuring the intensity of the diffused light either by fibers or with a high resolution camera. This technique is highly effective in diagnosing micro tumors and Alzheimer. Thus OI is gaining momentum as an important tool for clinical applications which will allow more targets and diseases to be diagnosed and treated in vivo.

2. Magnetic resonance imaging (MRI)

MRI uses a strong magnetic field and radio waves to create sharp and detailed images of organs and tissues within the body. It is a non invasive and painless technique to scan the body. The development of MRI proved to be a milestone in the field of medicines. Doctors are now able to scan the internal organs in case of different complications. It can be frequently used to detect anomalies of the brain and spinal cord, tumors, cysts, breast cancer, abnormalities in joints, heart problems, etc. The list is exhaustive and thus the use of MRI is always expanding in scope. The most widely used image enhancer for MRI has been based on Gadolinium compounds. However colloidal iron oxide nanoparticles (IONPs) and super paramagnetic iron oxides (SPIOs) have been widely used in MRI due to their high value of magnetic moment. SPIO agents with different elemental coatings have been used for the detection of solid tumors. SPIOs with antibodies have been used to scan breast cancer and colon cancer. USPIO with diameters < 30nm have been investigated as agents which can get accumulated at the outer surface of human brain tumors, making scanning clear.



3. DISEASE THERAPY

Nanomaterials have ability to penetrate and accumulate at biological sites by fast permeability and retention effect to recognize and bind the target area via some specific ligands. Currently nanomaterials are used for disease therapy like photodynamic therapy (PDT), magnetic hyperthermia (MH), photo thermal therapy (PTT), sonodynamic therapy (SDT), etc.

- ❖ **PDT** It uses a drug that is activated by radiation, called photo sensitizer to kill cancer cells. The radiation comes from a laser or other sources such as LEDs. It is most often used as a local treatment which treats a specific part of a body and is commonly used to cure actinic keratosis, Barrett esophagus, basal cell skin cancer, cutaneous T cell lymphoma and skin cancer. PDT limits damage to healthy cells because the photo sensitizer tends to build up in abnormal cells and the light is focused directly on them. It does not produces scarring which makes it suitable for people with skin cancer.
- ❖ **MH** It is a therapy which aims to produce the local heating by a magnetically mediated method using low frequency radiations in which body tissue is exposed to temperatures in the region of 40 -50 degrees. Hyperthermia is usually applied as an adjuvant to radiotherapy or chemotherapy. This cancer therapy method has several advantages, such as it is non invasive, it is local and does not damage good cells, it is biocompatible and biodegradable. Ferromagnetic bioactive glass ceramics are expected to potential agents for the hyperthermia treatment of cancer.
- ❖ **PTT** It is an experimental use of less energy radiations (near IR) for the treatment of cancer cells to mouth infections. PTT relies on the photo absorbers to generate heat from light absorption to burn cancer cell. Due to its spatial specificity and minimal invasiveness it has emerged as a substitute to other invasive cancer therapies. Current researches have shown that PTT is able to utilize radiation of longer wavelengths, which are less energetic and therefore less harmful to other tissues and cells. It is germicidal and enables the elimination of germs and therefore frequently used by dentists.
- ❖ **SDT** It is an emerging technique that offers the eradication of solid tumors in a site directed manner. The method utilizes a sonosensitizer and the deep penetration (about 30-40cm) of ultrasound to treat lesions of varying depths by reducing target cells and preventing future tumor growth. SDT in addition to cancer is used to cure many critical diseases like atherosclerosis, brain tumor and cervical spondylitis. Currently SDT does not have any clinical products but it acts as an adjuvant for the therapeutic methods.

4. DRUG DELIVERY SYSTEM

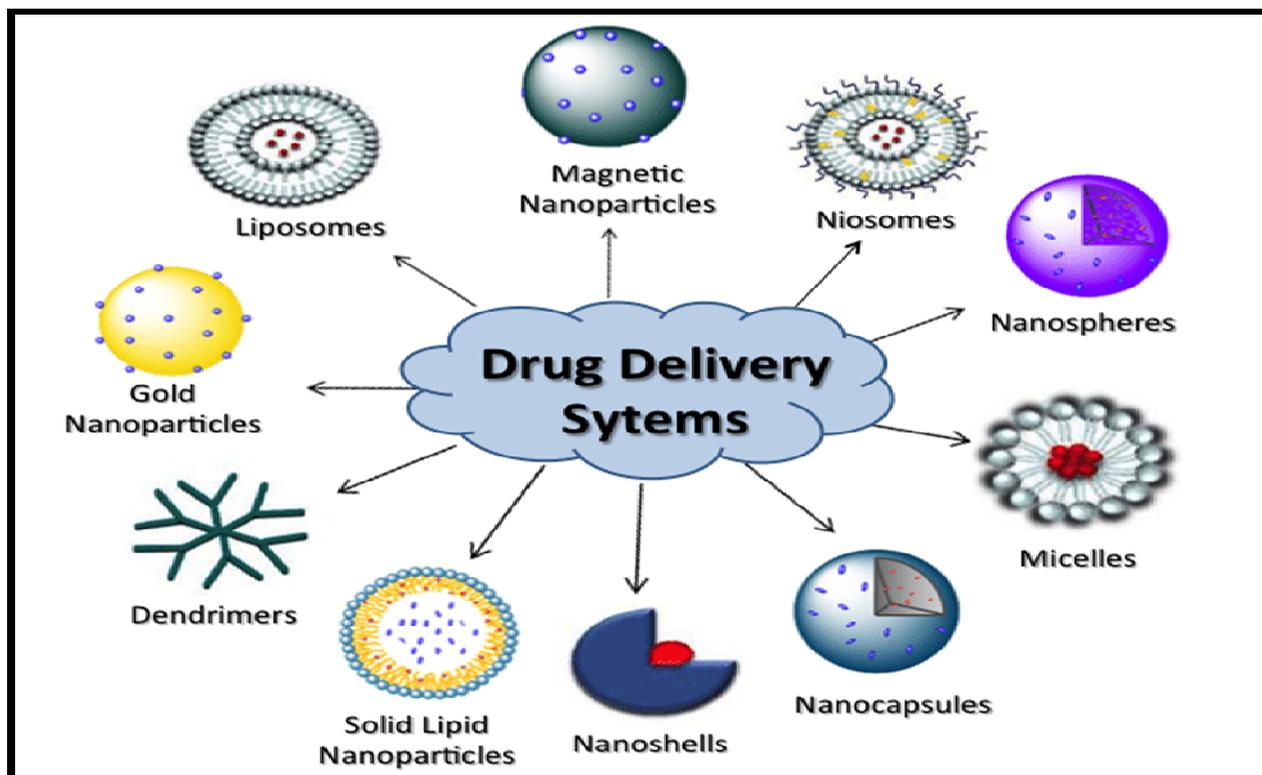
Nanotechnology acted as a bridge between the biological and physical sciences by applying nanostructures and nanophase at various fields of science; especially in nanomedicines and nano based drug delivery systems, where such particles are of major interest. Nanomedicines have become well cherished in recent times due to the fact that nanostructures could be utilized as effective delivery agents by encapsulating drugs or attaching therapeutic drugs and deliver them to target tissues more accurately with a proscribed release. The primary goal in drug delivery system (DDS) includes explicit drug targeting, diminution in toxicity, maintaining therapeutic effects with proper biocompatibility. Nanomaterials in DDS are generally smaller than 100nm in at least one dimension and consist of mainly metallic, organic, inorganic, lipids and polymeric nanostructures fused with gold (Au), silver (Ag), cadmium sulphide (CdS), zinc sulphide (ZnS), titanium oxide (TiO₂), etc. However effectiveness of these nanoparticles as drug

delivery agents varies with shape, size, biophysical and chemical characteristics. Several anticancer drugs including paclitaxel, dexamethasone, and 5-fluorouracil have been synthesized using nanoparticles. Quantum dots, chitosan, polydactyl glycolic acid (PLGA) based nanoparticles have also been used for in vitro RNA delivery. Drug such as lipoamide, doxorubicin, and peptide based nanodrug have shown to cross integral blood brain barrier and released at curative concentration in the brain.

Applying nanotechnology to drug delivery should achieve the following benefits:

- ❖ Improves the capacity to deliver drugs that are water insoluble
- ❖ Check deposition of drug within normal cells and tissues.
- ❖ Help to retain drug inside the human body to target the affected area.
- ❖ Enhance the drug bioactivity by protecting it from the biological environment.
- ❖ Combine diagnostic and therapeutic modalities into one agent.

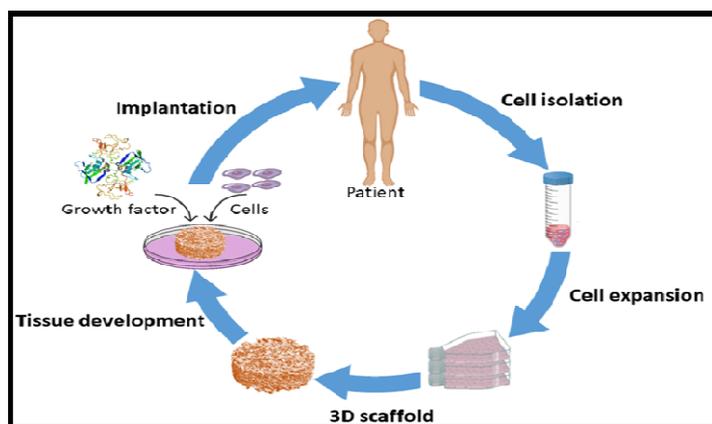
Thus nanoparticle mediated DDS is going to have a great impending impact on the society. It will considerably improve patients quality of life associated with healthcare, early detection of pathologic conditions; reduce the severity of disease and results in improved clinical outcome of the patient.



5. TISSUE ENGINEERING

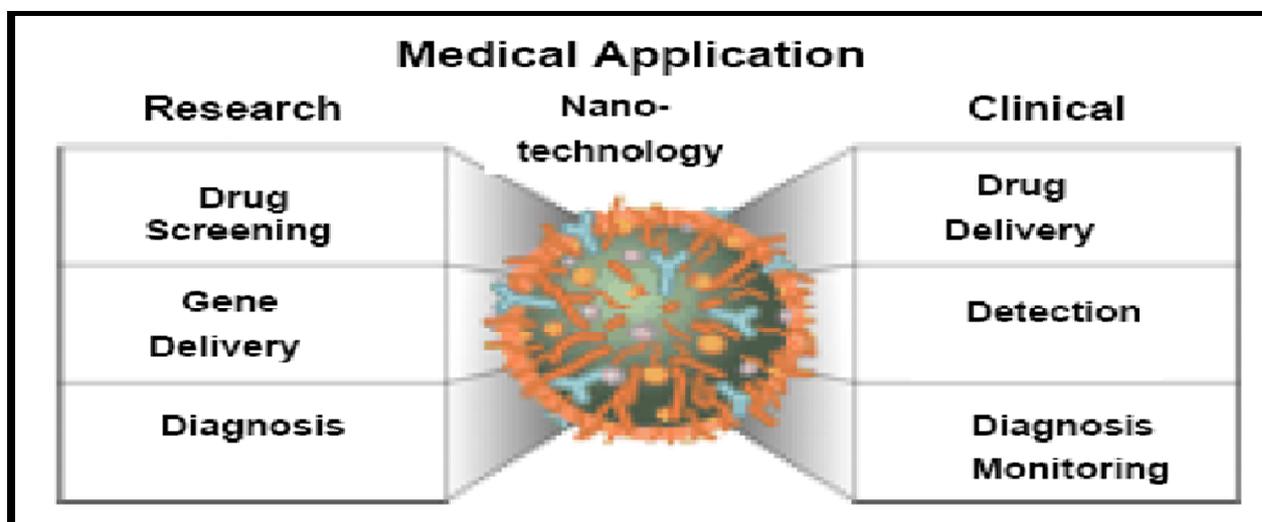
Tissue engineering is an interdisciplinary branch which integrates engineering, material science, natural science and medical biology that aim to develop biological substitutes to repair and restore healthy tissues and maintain organ functions. The advent of nanotechnology in tissue engineering has been paid more attention in recent time because of their exclusive and novel features. Because of their nano size, they can easily diffuse across membranes and facilitate uptake by cell. Nanoparticles can also imitate the natural nanometer size range of extra cellular matrix (ECM) components of tissues themselves and therefore they have been used to serve for the improvement of biological and mechanical properties to gene therapy, DNA transduction

(which is a procedure to introduce foreign nucleic acids into cells to produce genetically modified cells) and viral transduction (which is a process to introduce foreign DNA into another cell). In typical tissue engineering cells are adsorbed on biological scaffold providing surfaces with large number of active sites so that cells deposit their own protein to make them more biocompatible. With the speedy development of nanotechnology a great deal of advancement has been made in nanomaterials for tissue engineering including cartilage, bone, cardiac, vascular and bladder.



Another growing application of TE is the conception of in vivo human models, which help us to recognize and figure out the factors that compel cellular processes. In particular the idea is to deconstruct the complex cellular microenvironment into simpler systems in order to scrutinize the role of different chemical, mechanical and physical factors. Furthermore TE has transformed the

way we study human physiology and pathology, having a profound impact on the development of new techniques and therapies. However an unsettled matter for TE is the translation of concepts from the theory to the pharmaceutical industry. Many questions about cancer and tumor biology are unreciprocated, but TE model enriches the technique to understand disease sequence and thus improve diagnostic approaches. Thus to achieve the desired target the concept and technique should fulfill some set of requirements, apart from physical and biological relevance. In the past few years some concern were raised about their toxicity .It was found that long term exposure with these particles is very harmful and risky for humans. Some experiments were performed by injecting micro amount of nanoparticles in animals and results obtained were really shocking. For example paramagnetic iron oxide (Fe₂O₃), gold (Au), titanium oxide (TiO₂), certain lipids, metallic alloys are found to be lethal for kidney and liver.



Conclusion:

Nanoparticles have made major contributions to clinical medicine in the area of medical imaging and gene delivery. The majority of commercial nanoparticle in medicine is oriented towards drug delivery and gene therapy. In bioscience nanoparticles are replacing organic dyes in the applications that require high photo stability as well as high multiplexing capabilities. There are some developments in directing and remotely controlling the functions of nano probes, for example driving nanoparticles to the tumor and making them either to discharge the drug load or just heating them in order to destroy the neighboring tissues. The major trend in further advancement of nonmaterial's is to make them multifunctional and handy either by peripheral signals or by restricted surrounding so that they can be used as simple nanodevices in medicine and pharmaceutical industry. However much work needs to be done in near future to fully recognize and tap the potential of nanotechnology in drug delivery and tissue engineering. Although nanomedicine is still in its formative years, yet its practical applications clearly demonstrate its vast potential which the globe is going to experience in the coming years.

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Ambedkar : India's Greatest Educational Visionary

Fr. Baiju Thomas

Research Scholar

Ramakrishna Mission Vivekananda Educational and Research Institute, Faculty of Disability Management and Special Education, Vidyalaya Campus, SRKV Post, Coimbatore – 61020

Abstract:

Ambedkar believed that education was the most effective tool for enhancing people's living standards. "Educate, unite, and fight," he counselled. Human dignity and self-respect were at the centre of his social philosophy. He intended to instil values such as justice, equality, fraternity, liberty, and courage in society through education. He aspired to replace the current value-based culture with a value-based society. Undoubtedly, education is the only way to promote these moral values. Education is the most effective way of empowerment for the Dalit population. This study evaluates Ambedkar's contributions to Dalit academic assignment from a historical standpoint. Its goal is to link education and Dalit empowerment. He underlined the need for female education in today's society. He feels that a woman's education can benefit her family and motivate her children to attend school. He was a firm advocate of the poor and underprivileged. He highlighted the importance of scholarships at educational institutions to help the oppressed and backward classes' financial concerns. He stated that education was necessary to overcome mental slowdowns and happiness in their present situation. He devoted his life to ensuring that all people of independent India got an equitable education. He demonstrates his educational approach in his lectures, publications published in various journals, and work in academic institutions. Every academic institution, he says, should be used to influence social change. He was a firm believer in the value of education in society and how it can be used to help people develop their character. Ambedkar's pedagogical principles were the focus of this study. He envisioned an Indian educational system that instilled in citizens a basic understanding of human rights and how to apply them, and also compassion and justice. He believes that education has the potential to open people's minds and enable marginalized people to demand justice and put an end to long-standing injustice. He realized that the majority of poverty stemmed from inadequate knowledge. He chose a humanistic education over being a church, school, or state student since it allows him to discover himself and ensure freedom. He worked relentlessly to guarantee that all citizens of independent India had equal access to educational opportunities, and in the process, he established a variety of legal safeguards.

Keywords: Ambedkar, India, Greatest, Education, and Visionary.

Introduction:

Education is an essential aspect of our lives. Education is necessary for our daily life. You must educate yourself if you want to be wealthy or have a better life. Education is transforming a person's life and even a society's well-being. The only element that will substantially impact the near future is education. It is impossible to overestimate the value of education in personal development. You will grow as you obtain more experience and knowledge. If you have a professional qualifications and have been educated, you can work for well-known companies, firms, or organizations. As per Ambedkar, untouchables should "educate, organize, and unify" to gain their rightful place (Harrell M & Urmi Saha, 2016). Their lack of educational possibilities

exacerbated the untouchables' precarious situation. He criticized British policies for failing to persuade low-income children to attend school. He pushed socially outcasts and those from lower socioeconomic strata to attend school. He attempted to alleviate poverty and the monotony of village life for the lower classes. Untouchables have had specific responsibilities since the dawn of time. He was concerned that they would abandon their regular duties. Instead, they must concentrate on developing new talents and establishing new objectives. Somebody who has gotten a decent education is a good citizen. Man has significantly contributed to culture and society thanks to education. Education's importance cannot be understated. It's a self-discovery process. It is critical to an individual's overall growth and the development of society as a whole. The most convincing case for the education system has been made at all stages of society's story. In addition to being the father of the Indian Constitution, Ambedkar was a liberation fighter, national leader, philosopher, author, economist, editor, and Buddhist radical in India. Personal and environmental growth is central to his educational approach. He was a firm believer in giving equal access to education to all people of independent India. "Education is something that should be brought within the grasp of everyone," Ambedkar's primary educational idea stated. The basis of liberal education, as per Ambedkar, should be religious motivation from non-religious sources. He saw education as a combination of John Dewey's pragmatism and Buddha's "dharma," and he thought that by doing so, he could better educate his people and assist in breaking down the class divide. Ambedkar's educational philosophy teaches moral values. Wisdom is characterized as the capacity to discriminate between good and evil, compassion as caring for one's neighbor, and social equality as treating all students equally. He believed that the only way for Dalits to advance was through education. He thought that knowledge was necessary not just for his advantage but also for the benefit of others. Dalits would receive assistance in obtaining government positions, but they would also need to learn social and political awareness to safeguard their rights. In a nutshell, Ambedkar's educational goal was to instil enlightened thought in the people so that the country could be rebuilt. Liberty, equality, fraternity, and justice are the founding ideals of our society.

Ambedkar's Vision on Education

"Education is the ideal weapon for educating the oppressed masses to advance and attain social standing, economic welfare, and self-determination," says Ambedkar. Ambedkar, the Chairman of the Draft Indian Constitution, devoted the majority of his intellectual, social, and political efforts to express his belief in the ideal of "Sarvenah Bhavantu Sukhinah Sarve Santu Niramayah," i.e. the good and prosperity of all, and fought for the rights of discriminatory, disadvantaged, and poor and disadvantaged segments of society throughout his life. 'Education was mainly a privilege of the intellectual class until that day.' During his academic career, Ambedkar faced numerous challenges. As a result, he was compelled to live alone and in solitude. His academics appear unconcerned about the fact that his work is being examined. Several of them did not even ask him to perform poems or ask him any questions because they were afraid of becoming tainted. Ambedkar first understood what it means to be soiled during his school years. The educational principles of Ambedkar seem to be crucial at this time. In the current day, all of Ambedkar's ideas for improving elementary and secondary education have been incorporated into legislation. He was correct in his assertion that India's current educational system was defective and to blame for the country's woes. In any event, the national government's education plan is based on Ambedkar's beliefs. Furthermore, one may argue that

Ambedkar's commitment to innovation and creative human resources, both of which can be attained only via education, will promote India's climb to global dominance. Furthermore, his ideas will almost certainly influence the University Grants Commission's decisions on university research in the coming years. "Education is the ideal weapon to combat social captivity," He argues, "and education will educate the poor masses to rise and achieve social rank, financial progress, and self-determination." He had developed a near-doctrinal belief in education's value and transformational power. He felt that it should be accessible to everyone, regardless of background or social station. 'Education is something that everyone should have access to,' the author began. His life and work show how education can change a leader and the fate of oppressed people. As an outcome, it's vital to recognize his contribution to education and the present relevance of his vision and educational philosophy.

Equal Educational Opportunities

Ambedkar maintained a near-doctrinal belief in education's efficacy and transformative nature, though it should be accessible to everyone, regardless of caste or social status. Everyone should obtain a formal education (Ambedkar, 1982). He looked into British education policies in India and realized that education has always been limited to India's top crust. Because the British thought that teaching the poorer classes would risk their position in India, education was limited to the professional elite throughout their rule. The caste system was the worst victim of such a strategy in education. They were secluded at school. He made a significant contribution to education by thinking that "education should be given access to everyone." The Department of Education is not a department that can be bought. Education should be made as cost-effective as possible in all modes and to the greatest extent possible. "We are nearing a period in society when the lower orders of society are just joining high schools, middle schools, and colleges," he continued, "and the goal of this division should be to make higher education accessible to the lowest class as possible". He was a vocal opponent of India's growing educational gap. To paraphrase his statements, the most depressed educational groups appear to be suffering more than their population, as the Hunter Commission's figures demonstrate. Legislators were debating realistic strategies to enhance the education of the impoverished when he stated, "You want to inform that they are aware of a certain sum of money that has been set in the budgets for scholarship" (Ambedkar 1982). Everybody should be able to attend school, in his opinion. Individuals in control can't prevent obstacles from being placed in the path of those with education. When it comes to overcoming social and cultural gaps, education is an invaluable instrument. The most valuable thing a student can receive from the school is self-belief. He believes that if you lack education, you are doomed to failure. As per some, they had exhausted their potential. False. The man he blames for plunging us all into darkness is driving everyone into the depths of darkness himself. He believes that every civilization will end if it does not have a strong leader who is both educated and able to rally the people around him. As per Ambedkar, people's capacity for self-and social improvement is based on their learning ability. He was not the only one who saw the necessity of education at every level. He believes that this is the best method for creating leaders who can lead us in the right direction.

Primary Education

Primary education, as per Ambedkar, is essential for the poor because of its ability to help them get a foothold in society. Even if we lose some money, our rights and opportunity to

acquire the best education cannot be sacrificed, he says. In Mumbai's state assembly, it is well-known that he was an active member of the city's Minority Class. To ensure that all citizens had access to primary education, he advocated for increased government subsidies in the Legislative Council Discusses of the Bombay Assembly in 1927. He subsequently stated, "The goal of primary education should be to ensure that every child that enters the primary school doors does leave it only when it is literate and continues to be so throughout its life." (Ambedkar 1982). On March 12, 1927, Ambedkar spoke in the Bombay National Legislature about the significance of education throughout one's life. At the time, he was a council member in his hometown. It is "essential," he believes, that every child who enrolls in a primary school is "literate" and "keeps going to be so throughout his or her career" (Moon, Vasant, 1982). Ambedkar's study found that 82% of primary school children had already dropped out. As per his research, just 18 of every 100 students start elementary school, completing grade four. Another 82 children, or one in every hundred, had their analphabet status restored (Moon, Vasant, 1982). "We spend roughly 36% of our overall expenditure on art colleges, 31% of our total expenditure on high schools, and 26% on middle schools," stated Bhimrao Ambedkar, who opposed commercialization in education. Investing in children's education is worthless unless sufficient funds are allocated to guarantee that every kid who enrolls in a school completes grade four (Ambedkar 1982). Primary education must be supplied to the majority of India's population, or they will continue to be uneducated. Is there a method to ensure that the Dalit students at our school continue to attend? Providing adequate funding for public secondary school education was a top priority for Bhim Rao Ambedkar. This prompted him to query the Education Minister, who confirmed and said that the money they had spent on him was pointless unless they spent much more to ensure that every student who enrolls in school completes the fourth grade, which he agreed to do. Scheduled Caste pupils experienced more excellent dropout rates than the national average in India's fourth, fifth, sixth, and seventh grades. Early high school leavers should be discouraged, as he advised. About eighteen out of every one hundred pupils who begin primary school never make it past grade 4 (Ambedkar 1982). To help him achieve his aims, he urged the Minister of Education to spend more money on primary education. He was firm that primary education provides Dalits with the necessary foundation to enter into public life as a qualified and well-informed members of society. Hence, he felt that education should be treated as the greatest material benefit out of all material benefits.

Higher Education

Ambedkar's changes to the Bombay University Act significantly impacted Indian higher education. A person's education might be regarded as an asset in today's society. On September 25, 1925, Ambedkar's statements to the University Reforms Committee were confirmed. If the institution is just concerned with the evaluation process, it will be hard to increase access to higher education (Ambedkar 1982). When the Mumbai Legislative Assembly's academic reforms committee met to discuss the Bombay University Amendment Act in 1925, Ambedkar presented to the legislature explaining his views on higher education. In 1926, he proposed establishing one of eleven new universities in India, one of which would be located in Karachi. In the end, he decided to enroll in a college undergraduate and graduate program. He argues that higher education is a waste of time if the needs of the Dalits are not satisfied at the outset. "Grievances of Lower Caste" was an open letter addressed to the Governor-General General's attention, supporting Dalit science and technology education. Fewer than 10% of Dalit students are now

enrolled in technical or vocational schools. As per Ambedkar, universities must educate people who cannot otherwise afford to do so. The college's goal, in my opinion, should be to make sure that only those students are allowed to profit from educational resources. Even though his original vision has changed since his time, it is still sound today. To free up academics who were speaking, he said, students could attend classes from any of the schools in town, allowing them to work on other projects, such as study (Ambedkar 1982). To enable senators from various ethnic and religious backgrounds and opportunity to keep a watchful eye on the Senate, he called for a vibrant and diverse Legislature. And Ambedkar stressed the importance of higher education. Educational segregation can be seen in the division of undergraduate from graduate education. With no classroom instruction available, children's ability to learn is diminished. I'm in the middle of finishing it as I type this—one of the best performers in the world. He may have pioneered the idea of a university education council. In the opinion of the teacher, academic institutions should be able to invade positions in both the public and commercial sectors.

Dalit Women Education

An essential Indian social reformer, Ambedkar, was modernism Ambedkar. Working relentlessly to create an egalitarian society where men and women could coexist happily was the goal of his life. His superpowers were derived from his resolve to give up on the pillars of our Indian civilization, which were equal rights and compassion for all. According to Ambedkar, the first step was to ensure that they had an excellent education to empower Dalit women. As an outcome, they can lead to a more autonomous existence. Caste and gender inequality left Dalit women, particularly those in rural regions, more vulnerable to discrimination and violence because of patriarchy, racism, and caste inequity. On July 18, 1927, he addressed a multitude of over 3000 women about the importance of uplifting Dalit women. A culture's progress might be gauged by how far women had progressed in society. A more civil society benefits from having a woman with a college education. He was aware of the educational difference between men and women. In his opinion, taking a close look at how different groups performed in the classroom was a must. Despite being more remarkable, the Dalit population in India is smaller due to a lack of educational opportunities. It's unclear what can be done if both Dalits and Brahmins have equal educational access. As per the Ambedkar, this country consists of various ethnic groups. Each of these locations is in its unique stage of development and progress. Discrimination and preferential treatment benefit those who aren't treated fairly by society. Many of my closest friends and family members strongly believe in equal treatment for everybody, and this is nothing new to me. Treating everyone the same shows a lack of consideration for the sentiments of others, despite appearances to the contrary. There is a problem because this suggestion hasn't been imposed on the wealthiest citizens. Economically, socially, and politically, the poor are being harmed. As a result, I believe they need special consideration. Reflecting the Sun's rays, the Moon shines brightly." (Moon, Vasant, 1982). In today's environment, his case for equality of opportunity is still applicable.

Conclusion:

Ambedkar's belief in the transformative power of education made him a prominent influence on Indian education policy. We have no other choice except to accept education, band together, and fight for what we believe is right. He wants to leave his teachings with people and the rest of the globe. He sees them as connected because they can't progress or change

independently. Education is the key to breaking the chains of slavery and oppression. When it came to education, he was unwavering in believing that it could make a difference. Education has been promoted as an essential tool for social and economic advancement among the disenfranchised. This is a myth. As part of his attempts to assist the Dalits to become more acceptable in society, he taught, organized, and protested Articles 30 and 29 of the Indian Constitution, granting it to all people. Teachers like Babasaheb Ambedkar appear to influence our current political climate strongly. His ideas for restructuring India's elementary and secondary academic institutions formed the basis of the country's legal system. Inadequate education, as per Ambedkar, is at the root of India's cultural degradation. His thoughts have influenced the national government's educational policy decisions. His call for universal education for all Indians propelled India's rise to global prominence. This century, it is safe to anticipate that the University Grants Commission will utilize his ideals while selecting universities and performing experiments at such institutions.

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A Study of Growth and Role of Microfinance Industry in the Economic Development of India

Dr. Amit Singh Rathore

Director and Professor, Om Kothari Institute of Management & Research

Dr. Chetan Sharma

Associate Professor, Om Kothari Institute of Management & Research

Abstract:

Microfinance plays a significant role in India's growth. It strives to assist economically excluded communities in achieving better asset creation and income security at the family and community level. The country's microfinance sector showed signs of recovery during the fourth quarter of the financial year 2021-22, following the pandemic, with over 13% portfolio growth among lenders from the previous quarter and around 5% year-on-year (YoY) growth, indicating field activities returning to near normalcy. According to a research, the gross loan portfolio (GLP) of the entire microfinance industry increased by 11.9% from Rs 2,31,787 crore on March 31, 2020 to Rs 2,59,377 crore on March 31, 2021. The disbursements of NBFC-MFIs increased to Rs 30,216 crore in Q4 FY22 from Rs 27,364 crore in Q4 FY21. The purpose of the study is the role of the Microfinance Industry in India, which finances micro, small, and medium-sized enterprises (MSME) in India.

Keywords: RBI, Micro Finance, Banks, NBFCs, Micro, Small and Medium Enterprises (MSME)

1.Introduction :

India is a developing nation whose rural economy serves as its foundation. In developing nations such as India, microfinance institutions play a crucial role in alleviating poverty and improving economic conditions. In devolving nations, micro, small, and medium-sized firms have been the primary source of employment and income for a significant portion of the population.

Microfinance operations rose to prominence in the early 1990s, and the Reserve Bank of India (RBI) identified it as a new paradigm with enormous development potential and was very supportive of its expansion. The informality and adaptability of microfinance have been of enormous assistance to the nationwide microfinance movement including regular people. Over the past decade, the microfinance industry has undergone tremendous transformations. As a result of mergers of NBFCs and MFIs, as of September 2020, the percentage of NBFC-MFIs in the microfinance market in terms of gross loan portfolio was slightly more than 30%. As the sector grew, however, some deficiencies and shortcomings became evident, culminating in the Andhra Pradesh (AP) microfinance crisis of 2010. This disaster was ascribed to the irrational exuberance of certain MFIs, which, in their zeal to expand their businesses, had disregarded conventional wisdom and good practices, such as due diligence in lending and ethical recovery practices. However, Microfinance Institutions satisfy the financial needs of MSMEs. MFIs become the sole source of growth funding for numerous small businesses. Microloans between Rs.20,000 and Rs.30,000 are the most popular in India. However, the category of loans between Rs. 30,000 and Rs. 40,000 increased by 56% between Q3 FY18 and Q3 FY19. As of March 31, 2019, the microfinance industry has experienced an increase of 44 percent year-over-year.

(According to CRIF's High Mark Report) Microloans between Rs.20,000 and Rs.30,000 are the most popular in India. However, the category of loans between Rs. 30,000 and Rs. 40,000 increased by 56% between Q3 FY18 and Q3 FY19, As of March 31, 2019, the microfinance industry has experienced an increase of 44 percent year-over-year. (According to CRIF High Mark Report) MFIN is a trade organisation made up of 58 NBFC-MFIs and 39 associates, including banks, small finance banks (SFBs), and NBFCs. According to the research, as of March 31, 2021, the microfinance industry served 5.93 billion unique borrowers through 10.83 billion loan accounts. It was stated that 13 banks control the main share of the micro-credit portfolio with outstanding loans totaling Rs 1,13,271 crore, or 43.67 percent of the whole micro-credit universe. The studies revealed that non-banking financial companies-microfinance institutions (NBFC-MFIs) are the second largest source of microcredit with an outstanding loan balance of Rs 80,549 crore, representing 31.05% of the total industry portfolio. The outstanding loan balance for small finance banks (SFBs) is Rs 41,170 crore, with a total share of 15.87%. Microcredit is distributed via a number of institutional channels, including (i) scheduled commercial banks (SCBs) (including small finance banks (SFBs) and regional rural banks (RRBs)) lending both directly and through business correspondents (BCs) and self-help groups (SHGs), (ii) cooperative banks, (iii) non-banking financial companies (NBFCs), and (iv) microfinance institutions (MFIs) registered as NBFCs as well as Microfinance institutions are financial institutions that provide small-scale credit and savings services, mostly to the underprivileged in rural, semi-urban, and metropolitan areas. These financial services are intended to assist people in engaging in economic activities, reducing their susceptibility to income shocks, smoothing their consumption, boosting their savings, and fostering their self-empowerment. There are numerous microfinance companies in India that play crucial roles in the country's growth.

The microfinance industry in India is fragmented, with over 3000 microfinance institutions (MGIs), non-governmental organisations (NGOs), and NGO-MFIs. It is estimated that the top 10 microfinance organisations in India account for around 74% of all outstanding loans. The outstanding loan balance in the Indian microfinance business is between 160 and 175 billion dollars. As of March 31, 2009, around seventeen Indian microfinance institutions had more than one million outstanding loans.

2. About Microfinance Institution in India

Microfinance, also known as microcredit, primarily consists of extremely modest loans of approximately Rs.100,000 granted to an individual or group of individuals known as self-help organisations (SHGs). Borrowers typically come from the weakest segments of society. The Reserve Bank of India (RBI), the nation's central bank, has urged banks to adopt the SHG model for lending to over 30 million small and micro units in order to facilitate their access to capital. The Indian microfinance industry include of NGOs, trusts, and societies that operate on a not-for-profit basis, as well as larger for-profit organisations like as Spandana, SKS, Basix, Share Microfin in Andhra Pradesh, Cashpor in Uttar Pradesh, and Grameen Koota in Karnataka. The microfinance business is expected to serve approximately 10% of credit-seeking poor households. MFIs arose in the late 1990s to raise social and commercial capital for lending to the poor. There are currently over a thousand MFIs in India, the majority of which serve the rural poor. Several MFIs have also recognised the possibilities of urban poor financing. Urban MFIs include Uplift, an alliance of urban MFIs, Society for the Promotion of Area Resource Centres

(SPARC), Swadhar FinAccess, Bandhan, and Ujivan. In the absence of adequate collateral, it is difficult for banks to lend to MFIs.

To broaden their capital base, numerous MFIs such as Biswa, Grameen Kuta in Bangalore, and Bandhan in West Bengal have changed into non-banking finance companies (NBFCs).

3. Review of Literature

Sheokand (2000) investigated the evolution of Indian savings and the emergence of microfinance as a means of assisting a broad clientele. Fisher and Sriram (2002) discovered that in India, savings at the local level have been thriving for an extended period of time. Yunus (2007) also stated that the entire rural credit ecosystem may be transformed by merely channelling the money flow at the grassroots level into a proper framework. In his article, Sarkar (2008) examined the new microfinance model in Bangladesh and the need for institutional reforms in India's microfinance development plan. According to him, the development of a variety of fresh, appealing savings and loan options for its consumers is urgently required. Microfinance has been an essential instrument for empowering women and alleviating poverty. It has provided financial services and credit to India's underprivileged and unbanked population, thereby promoting financial inclusion. Sarmah and Das (2012) analysed the socioeconomic development of the impoverished in Assam's Lakhimpur District through microfinance. According to the findings of the study, economic empowerment has enabled rural poor to enhance their income and improve their level of living. Ritesh Dwivedi and Akshay Kabra (2019). Underneath the surface, there exists a vast opportunity for MFIs to acquire more and more consumers. In India, the needs of poor families are severe, and access to credit is limited. Today, every state has a substantial number of microfinance service providers, and it is necessary to support them by fostering an enabling environment and enhancing physical facilities. Some segments of rural population are unaware of these services, so MFIs must organise several awareness campaigns to inform them about the services and goods available and how they would benefit them. Micro- and small-sized businesses were the backbone of the traditional village system, and some village businesses are still operating across the nation; these businesses require financing, and MFIs must seize this opportunity with both hands. To further improve their standard of living, leaks must be identified and effectively sealed. Health issues are a major source of financial loss for a family, thus education and acceptance of insurance programmes constitute the heart of intervention. Education and shelter are also important factors to consider for improved lifestyles.

4.Role of Microfinance

Microfinance is the provision of financial services to low-income clientele, small organisations, and self-employed individuals who lack access to regular banking and related services. Typically, microfinance initiatives have targeted women. By offering access to financial services only via women, making women responsible for loan repayment, managing savings accounts for women, and providing insurance coverage through women, microfinance programmes convey a powerful message to both households and communities. Microfinance's function in economic development is to satisfy the needs of economically marginalized populations. Briefly, the objective of microfinance is to fund the livelihood, health care, housing upgrades, small business creation, and other requirements of underserved groups, particularly poor and near-poverty level individuals in the United States and internationally. Microfinance

institutions are the key international organisations in each nation that provide direct microcredit loans to villagers, microentrepreneurs, impoverished women and poor families. An international MFI is comparable to a small bank in that it faces the same obstacles and capital requirements as any other small business, with the extra obligation of helping economically disadvantaged populations. Numerous MFIs are creditworthy, well-managed, and have a track record of success; many are also operationally self-sufficient.

5. Customer Protection Concerns in the Microfinance Sector

a) Over-indebtedness and Multiple Lending

NBFC-MFIs are subject to the full regulatory framework, whereas other small lenders such as cooperatives and local lenders, which account for approximately 70% of the microfinance portfolio, are not subject to equivalent regulatory constraints. Consequently, small borrowers are increasingly able to obtain many loans from multiple lenders, which contributes to their over-indebtedness and can potentially show itself in coercive recovery techniques. This undermines the primary purpose of protecting small borrowers contained in the NBFC-MFI regulations, which prohibit multiple NBFC-MFIs from lending to the same borrower. In addition, there is a regulatory cap on the maximum amount an NBFC-MFI can lend to a microfinance borrower. With a reduction in the proportion of NBFC-MFIs to the total volume of microfinance, the client becomes the victim of excessive debt.

b) Pricing of Microfinance Loans

The regulatory interest rate cap applies exclusively to NBFC-MFIs. Over the years, regulatory directives and clarifications have resulted in a complicated system of rules governing the cost of funds. The specified ceiling on lending rates for NBFC-MFIs has had the unintended effect of stifling competition, resulting in pricing parity among the majority of lenders. There is worry that the current standards, which prescribe a maximum interest rate for only NBFC-MFIs, essentially serve as a regulatory standard for all lenders. Despite significantly reduced cost of funding, banks' lending rates also hover around this ceiling. Even among NBFC-MFIs, expanding operations resulting in higher economies of scale have not led to a discernible drop in lending rates. Thus, it is the borrowers who are deprived of the advantages of increased competition and economies of scale. Therefore, there is an unequal playing field, which compromises customer protection.

c) Need for Review of the Current Regulatory Framework

The purpose of the existing regulatory framework for NBFC-MFIs is to make credit accessible to low-income people in a transparent way while protecting borrowers from any predatory lending practices used by lenders. However, again, this framework only applies to 30% of the microfinance loan portfolio. Emerging microfinance sector dynamics and customer protection issues necessitate a revision of the legislation to ensure that all microfinance regulated entities (REs) pursue client safety within a calibrated and standardised framework.

The primary objective of the regulatory body is to address concerns regarding the over-indebtedness of microfinance borrowers and to enable the market mechanism to bring down interest rates in the microfinance sector, while empowering borrowers to make informed decisions by enhancing existing mechanisms on loan pricing transparency. While introducing lender-neutral and activity-based regulations in the microfinance sector, the Reserve Bank is also aware that certain prudential norms specific to NBFC-MFIs should not be harmonised with other regulatory entities (REs) in order to address the idiosyncratic risks arising from NBFC-MFIs'

concentrated exposure to unsecured microfinance loans. In addition, the proposed regulations shall be implemented in a non-disruptive manner, and all REs shall be given ample opportunity to comply with the recommendations following their implementation.

Before proceeding with the proposed changes to the regulatory framework, it would be prudent to examine the important existing norms governing the NBFC-MFIs' activities.

d) Regulatory Approach towards Microfinance

In an effort to integrate client-centric ideas into the operations of NBFC-MFIs, the regulations have attempted to ensure that the product design and delivery are to the clients' benefit. As the majority of NBFC-MFI consumers are socially as well as financially weak, a 'fair practices code' with an appropriate grievance redressal system has been established for NBFC-MFIs to ensure customer protection and transparency.

As noted previously, in the aftermath of the AP microfinance crisis in 2010, the Reserve Bank of India (RBI) established a committee under the leadership of Shri Y H Malegam to examine issues and concerns in the MFI industry. The regulatory approach towards microfinance has been heavily influenced by the Malegam Committee's suggestions. The following are the primary recommendations of the Malegam Committee:

- a. Establishment of a distinct type of NBFCs operating in the microfinance sector, to be known as NBFC-MFIs
- b. the criteria for identifying microfinance loans as "qualified assets."
- b. Prudential standards for capital adequacy and provisioning
- d. Prescriptions concerning credit pricing in terms of a margin cap and interest rate cap on individual loans
- e. Transparency in interest rates and other loan terms and circumstances
- f. Measures to combat multiple lending, over-borrowing, and forceful recovery techniques
- g. Establishment of a suitable grievance redress system

6. Challenges Faced by MFIs in India

Although microfinance institutions have been profitable in India, there have been regulations and populist politics that have proved to be unfavourable to them. The small size of these institutions imply that they will be affected by small adverse developments resulting in fragile finances.

Banks usually have multiple products and an assured deposit structure. On the other hand, micro lending institutions are highly dependent on the market for funding. This means that at the smallest of events affecting business, MFIs could find it difficult to procure financing. Additionally, banks today have a presence in the microlending space and they are also partnering with MFIs through strategic stakes. MFIs are also finding it difficult to grow independently without any support from anchor investors.

Several microfinance institutions have converted into small finance banks. This implies that they can lend at higher interest rates. Moreover, they will have access to deposits that are low-cost. Banks are now some of the largest providers of micro-finance as per MFIN reports. MFI-turned banks are still the major providers of micro finance. Since financial inclusion is on the rise, MFIs have many more years of opportunity remaining. The key to their survival is the constant backing from investors.

The biggest risk looming over the microfinance industry today is the tendency to overborrow on the part of loan seekers. As per CRIF High Mark data, there was a hike in the

average microfinance loan size within the last 2 years. Several borrowers have also attempted borrowing from multiple lenders.

7. Conclusion

In order to support small enterprises, MFIs are working to make their services better, by the way of understanding unique needs of MSME. They are tailoring their services and working toward making the process much easier so that, MSME can easily avail their services. With the help of management MFIs can create client concentric approach, with hiring knowledgeable and dedicated staff. RBI is also making amendments in the norms for the microfinance industry so that they will boost the funding.

The gross loan portfolio (GLP) of the entire microfinance industry increased by 11.9% from Rs 2,31,787 crore on March 31, 2020 to Rs 2,59,377 crore on March 31, 2021. The disbursements of NBFC-MFIs increased to Rs 30,216 crore in Q4 FY22 from Rs 27,364 crore in Q4 FY21. This shows that MFI is growing year by year and providing financial support to small and medium size business. In developing nations like India and other nations, the concept of micro finance loans and micro finance institutions has been embraced. Now, Micro finance lending has become the lifeline for the MSME. Such Institutes help many deprived sections of the society, so that they can become able to integrate with the main stream. However, microfinance plays the most significant role in alleviating poverty in society. Numerous banks in India have begun lending money to microfinance institutions. It works towards the empowerment of women, which is a major step towards the country's growth.

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Benefits of Social Media Among Youngsters

Mrs. D. Kalarani,

Assistant Professor of Commerce, Christopher Arts and Science College (Women) , Surangudi, Tirunelveli – 627108, Manonmaniam Sundaranar University, Abishegapatti, Tirunelveli 627012

Abstract:

Social media platforms allow users to have conversations, share information, Entertainment and create web content. There are many forms of social media, including blogs, micro-blogs, wikis, social networking sites, photo-sharing sites, instant messaging, video-sharing sites, podcasts, widgets, virtual worlds, and more. There are some social networking sites taken for the study that is Facebook, You-tube, Snapchat, LinkedIn, Instagram and twitter. A sample of three hundred and eighty five persons was taken for study from Youngsters in India and the various dimensions of Benefits of social media were evaluated with the help of an Interview Schedule. The data collected were analyzed with the help of Factor Analysis, ANOVA and Confirmatory factor analysis. The researcher used IBM-SPSS and AMOS software for analysis and interpretation of data. In a recent study, it was found that the benefits of social media youngster used for entertainment, connectivity with others, and personal behavioral expressions.

Keywords: Benefits, Social Networking Sites, Social media and Youngsters

Introduction:

Billions of people around the world use social media to share information and make connections. On a personal level, social media allows you to communicate with friends and family, learn new things, develop interests, and be entertained. On a professional level, One's can use social media to broaden ones knowledge in a particular field and build one's professional network by connecting with other professionals in ones industry. At the company level, social media allows to have a conversation with the audience, gain customer feedback, and elevate your brand.

Benefits of Social Media

Social media originated as a way to interact with friends and family but was later adopted by businesses that wanted to take advantage of a popular new communication method to reach out to customers. The power of social media is the ability to connect and share information with anyone on Earth or with many people simultaneously. Social media has changed the way that we all interact with each other online. It's given us the ability to discover what's happening in the world in real-time, to connect with each other and stay in touch with long-distance friends, and in order to have access to endless amounts of information at your fingertips. In many senses, social media has helped many individuals find common ground with others online, making the world seem more approachable. Businesses are also using social media marketing to target their consumers right on their phones and computers, building a following in order to build a loyal fan base, and create a culture behind their own brand. Some companies, such as Denny's, have created entire personas on Twitter in order to market to younger consumers using their own language and personas.

Methodology:

To find out the Befits of Social Media .This study is confined to social media. Proportionate Random sampling method has been adopted for selecting 385 respondents. Data were collected from 385 respondents who are using Social media, Whatsapp, Face-book,

YouTube, Instagram, twitter and Instagram. Sample consisted of both males & females, who have been contacted through Google form. A self-designed Questionnaire was framed using from “Benefits of social media” with comparative weight of one to four. Data was collected from college students and working professionals. Data collected through Google form. It is classified, coded, tabulated and analyzed with the help of Statistical Package for Social Sciences (SPSS) and AMOS. The data was analyzed using percentage, Factor Analysis, Reliability and ANOVA for indicating Benefits of Social Media among Youngsters.

Review of Literature:

1. **Davmane et.al (2015)**, analyzed the factors for online social networking sites as per users behavior like user friends, the peer groups, access patterns, amount of time spent, its effect on personal and professional life. User attitude and behavior is also surveyed for over seven hundred users using a questionnaire consisting of 27 questions, which focused on behavior of Indian users in terms of usability, trends and access.

2. **Zhou et.al (2017)**, proposed a unique system called Pro Guard to detect malicious accounts by financial institutions that deal with real and virtual currency. Analyzing the behaviors, recharging patterns and currency usage of such accounts, demonstrated experimental results to prove their proposed system to work. Based on that, they accomplished 0.3% false positives only.

3. **Killoor et.al (2017)**, presented a trust analysis system for online social networks to improve privacy and approval process for authentic social network site users. They concluded that real users are not willing to disclose their identities due to privacy issues on public sites and social networks.

4. **Wang et.al (2017)**, proposed the use of a probabilistic model for detecting identity thefts on social networking while using mobiles over unsecure Internet. The authors conducted experiment on real time data sets and displayed their performance and response with the help of user behavior analysis as a key parameter for identity theft detection.

Research Gap: Social media is used for sharing, caring, studying, learning, updating our knowledge and information in different networking sites through internet in different manner. While the above reviews focus's on study purpose, behaviors and privacy policy of social media, this research focus on the benefits of social media among youngsters.

Results and Discussions:

Demographic Profile: From the responses gathered from 385 youngsters, It is inferred that (33.2%) within the age group of 18-20, (24.9%) between the age group of 21-29 and (41.8%) between the age group of 30-35 years. (38.4%) consist of males and (61.6%) female. (3.1%) has completed School Level education, (33.2%) have completed Graduation, (29.1%) have completed Post Graduation, (33.8%) have completed M.Phil and PhD and (.8%) have completed other course of education. (27.5%) in Private Employment, (15.8%) in government employee, (50.6%) college students, (2.9%) Home maker (1.8%) in Business people, and (1.3%) involved in other occupation. (58.7%) Nuclear family and 37.9 of the respondents are (58.7%) nuclear family. Hence, most of the youngsters between the age group of 30-35 years, 61.6 percentages of the respondents are female, 33.8 percentages of the respondents have completed M.Phil and PhD, 50.6 percentages are college students and 58.7 percentages of the respondents are nuclear family.

Table 1 Reliability Statistics of Purpose of Social Media Ethics

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.919
Bartlett's Test of Sphericity	Approx. Chi-Square	4334.573
	df	91
	Sig.	.000
Reliability Statistics		
Cronbach's Alpha		N of Items
.932		14

Source: Primary Source

KMO and Reliability of all the fourteen statement is statistically significant as the p value is less than 0.05. It is stated that all the variables taken for analysis Are statistically significant and are amenable for further analysis. Cronbach's Alpha of variables is .932 all the fourteen variables are more reliable.

Table 2 ANOVA test of Purpose of Social Media Ethics

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig
Between People		4776.108	384	12.438		
Within People	Between Items	688.662	13	52.974	62.746	.000
	Residual	4214.552	4992	.844		
	Total	4903.214	5005	.980		
Total		9679.322	5389	1.796		
Grand Mean = 3.37						

Source: Primary Data

It is known from the ANOVA test that the mean square Between People is 12.438 and Between Items is 52.974. The F value is 62.746 and is statistically significant as the p value is less than 0.05. The grand Mean is 3.37. Hence, it is all the fourteen variables are significant.

Table 3 Rotated Component Matrix of Purpose of Social Media Ethics

Statements	Components Expressions		
	Personal Behavioral	Entertainment	Connectivity
	Narcissism (One who admires himself too much)	.877	.141
Psychological Disorder (Anxiety, Depression, Loneliness)	.875	.187	.076
Antisocial Behavior	.864	.175	.135
Affecting communication skills (Possibilities of individual communication skills getting suppressed)	.796	.311	.008
Cyber bullying – (Hurting others through false message/information)	.789	.474	-.041

Do social media posts/messages ever upset you, stress you or cause you anxiety	.785	.140	.268
Do you think your use of social media is reducing the amount of sleep you get	.772	.107	.260
Leaking Private Information – (with others without his/her	.730	.539	-.091
Internet Fraud (Giving false information through chatting, email, message boards, etc...)	.666	.526	.009
Do you 'in' popular nowadays	.311	.720	.225
To meet new people	.149	.716	.374
Just for fun and entertainment	.213	.540	.451
Keeping in touch with friends	.082	.223	.865
Keeping in touch with family	.107	.150	.856
% of Variance	42.20	17.15	14.81
% of Cumulative variance	42.20	59.35	74.16

Source: Primary Data

There are fourteen variables are divided in to three statements. The first statement has nine variables is named as **Behavioral Expressions**, next three variables under the statement of **Entertainment** and rest two variables coming under the **Connectivity** .

Behavioral Expressions : Narcissism (One who admires himself too much) (.877), Psychological Disorder (Anxiety, Depression, Loneliness) (.875), Antisocial Behavior (.864), Affecting communication skills (Possibilities of individual communication skills getting suppressed (.796), Cyber bullying – (Hurting others through false message/information) (.789), Do social media posts/messages ever upset you, stress you or cause you anxiety (.785), Do you think your use of social media is reducing the amount of sleep you get (.772), Leaking Private Information – (with others without his/her (.730) , Internet Fraud (Giving false information through chatting, email, message boards, etc..(.666) and total variance is **42.20**.

Entertainment Expressions: Do you 'in' popular nowadays (.720), to meet new people (.716), Just for fun and entertainment (.540) and total variance is 17.15.

Connectivity: Keeping in touch with friends (.865), Keeping in touch with family (.856) and total variance is 14.81. All the fourteen variables are statistically significant.

Table 4 Component Transformation Matrix

Components	Behavioral Expressions	Entertainment	Connectivity
Behavioral	.851	.461	.250
Entertainment	-.421	.316	.850
Connectivity	.313	-.829	.463

Source: Primary Data

Inferred that the table Component Transformation Matrix is shows three Expressions .it is observed that the main purpose of the social media is Behavioral Expressions .851 has negative relationship with Entertainment -.421 and it has positive relationship with Connectivity .313. Entertainment.316 has positive relationship with Behavioral Expressions .461 and negative relationship with Connectivity -.829. Connectivity .463 has positive relationship with Behavioral Expressions .250 and Entertainment .850. Hence Behavioral Expressions is followed by Entertainment.

Chart 1 Confirmatory Factor Analysis of Purpose of Social Media Ethics

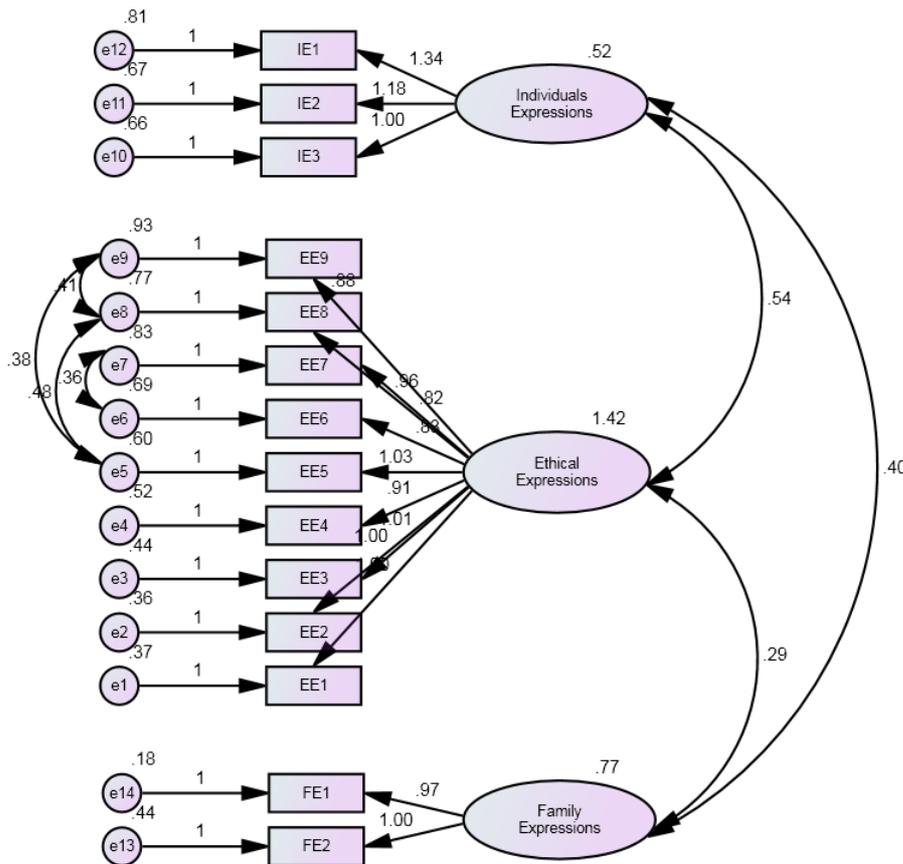


Table 5 Models Fit Indices

Goodness of fit Measures	Estimates	Cutoff values	Model fit
Chi Square	226.751		-
Degrees of freedom	70		-
Probability level (p value)	.000	< 0.05	Yes
F ratio	1.091	< 3	Yes
Comparative Fit Index (CFI)	.964	> 0.90	Yes
GFI	.923	> 0.90	Yes
AGFI	.884	> 0.80	Yes
Root Mean Square of Approximation (RMSEA)	.076	< 0.08	Yes

Source: Derived

The model statistics shows that the value of Chi Square is 226.751 for degrees of freedom 70 and is statistically significant as the p value is 0.000 which is less than the standard value of 0.05. The value of F ratio is 1.091 which is within the control limit of less than 3, Comparative Fit Index (CFI) is 0.964 which is less than the limit of greater than 0.90, GFI is 0.923 which is less than the limit of greater than 0.90, AGFI is 0.884 which is Greater than the limit of greater than 0.80 and the value of Root Mean Square of Approximation (RMSEA) is .076 which is more than the limit of less than 0.08. The confirmative factor Analysis model is accepted.

Table 6 Regression Weights of Default model

			Regression Weights	C.R.	P	Label
EE1	<---	Ethical Expressions	1.000			
EE2	<---		.996	26.088	.000	Sig
EE3	<---		1.014	24.950	.000	Sig
EE4	<---		.913	22.488	.000	Sig
EE5	<---		1.027	23.106	.000	Sig
EE6	<---		.829	19.219	.000	Sig
EE7	<---		.824	17.857	.000	Sig
EE8	<---		.963	20.483	.000	Sig
EE9	<---		.883	18.008	.000	Sig
IE3	<---	Individuals Expressions	1.000			Sig
IE2	<---		1.183	11.216	.000	Sig
IE1	<---		1.342	11.334	.000	Sig
FE2	<---	Family Expressions	1.000			Sig
FE1	<---		.974	11.878	.000	Sig

Source: Derived

As per Standardized Regression Weights, it is noted that all the fourteen statements taken into consideration in the deciding of the purpose of social media ethics are divided into three statements is named as Ethical Expressions, Individuals Expressions and Family Expressions. First nine variables named as Ethical Expressions, next three variables named as Individuals Expressions and two variables statement named as Family Expressions. Hence, it is inferred that the statements are statistically significant as the p values are less than 0.05. **Purpose of Social Media Ethics** all the 13 variables are the model indices is correct fitness of the model.

Conclusion:

According to a survey by Pew Research Center, the use of social media is correlated with having more friends and more diverse personal networks, especially within emerging economies. For many teenagers, friendships can start virtually, with 57% of teens having met a friend online. Other than that, the social media users have more benefits. The researcher had found and divided three expressions of benefits like, self behavior, entertainment and connectivity. That is Leaking Private Information, Giving false information through chatting, email, message boards, and so on for first category, chatting commending, replying, sharing for entertainment, the second category and finally touch with family and friends under the third category. Among the three categories, Behavioral Expressions emerges as the top most rank which is then followed by Entertainment and Connectivity purpose.

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Conceptual Framework on Artificial Intelligence (Ai) in Accounting Profession

Dr. Sachin Rajendra Suryawanshi

Assistant Professor, Department of Commerce,
Dhananjayrao Gadgil College of Commerce, Satara, Maharashtra (India)

Abstract

Accountants have embraced emission of automation over many years to get better the efficiency and effectiveness of their work. But technology has not been able to replace the need for expert knowledge and decision-making. Really, earlier generations of 'intelligent' systems have usually demonstrated the progressing power of human expertise and the restrictions of machines. In the upcoming decades, intelligent systems must take over more and better decision-making tasks from humans. While accountant has been using technology for a lot of years to improve what they do and deliver more value to businesses, this is an opportunity to reimagine and radically improve the quality of business and investment decisions – which is the ultimate purpose of the profession. Accountants, as expert decision makers, use both ways of thinking – they apply their knowledge to specific situations to make reasoned decisions, although also make quick intuitive decisions based on extensive experience in their field. Today, AI is being used for image recognition, object identification, detection, classification and automated geophysical feature detection. These are underlying tasks that once required the input of a human. Focusing on how artificial intelligence will impact accountants, AI will very soon help organisation to automate much of the routine and repetitive activities that are undertaken on a daily, weekly or annual basis. It will also help organisation to empower quick decision-making create smart insights examine huge quantities of data with ease.

Key words: Artificial Intelligence (AI), Knowledge-based Systems & Accounting Profession

Introduction :

Accountants have embraced emission of automation over many years to get better the efficiency and effectiveness of their work. But technology has not been able to replace the need for expert knowledge and decision-making. really, earlier generations of 'intelligent' systems have usually demonstrated the progressing power of human expertise and the restrictions of machines.

Artificial intelligence (AI) has been an aspiration of computer scientists since the 1950s, and it has seen tremendous progress in recent years. Examples of AI are already an integral part of many of our online activities, and will become increasingly embedded in everything it touches and does. These systems do not replicate human intelligence. Indeed, several experts would dispute the exercise of the term 'AI' at all to describe recent machine learning systems. Though, on a task-by task starting point, systems increasingly produce outputs that far go beyond the accuracy and consistency of those produced by humans.

In the short to medium term, Artificial intelligence (AI) brings a lot of opportunities for accountants to improve their efficiency, provide more insight and deliver more value to businesses. In the longer term, Artificial intelligence (AI) raises opportunities for much more radical change, as systems increasingly take over decision making tasks currently done by humans.

History of artificial intelligence

Advances in computer hardware and computer software in the 60's and 70's have led to an increased use of computers by people in all walks of life. The scientists and researchers involved in the design and development of these physical devices have relentlessly worked to find various applications for these machines. The idea of having intelligent assistants to human beings that was haunting many logicians, philosophers, novelists and futurists for quite a long time started getting crystallized with the availability of these machines. For example, George Boole (1815 to 1864), who invented boolean algebra, in the preface of his book titled *An Investigation Of The Laws Of Thought On Which Are Founded The Mathematical Theories Of Logic And Probabilities* (1854) writes: "The laws we have to examine are the laws of one of the most important of our mental faculties. The mathematics these have to construct are the mathematics of the human intellect". This reveals the fact that his concern was more in the direction of intelligent machines or the artificial intelligence rather than the mathematics alone. Perhaps the best citation that one can exert is that of Alan Turing who perspicaciously felt the possibility of computer intelligence. Turing, in his very widely accepted article *Computing Machinery And Intelligence* has explicitly expressed that a computer could be programmed so as to exhibit intelligent behavior. Such thoughtful speculations have resulted in the ascendancy of a new area of research called Artificial Intelligence (A.I.).

The 1950s started the "real" development of Artificial intelligence (AI) and related programming languages. During the early 1950s, Arthur Samuel of IBM developed the first game-playing program for checkers. The Samuel machine learning programs were responsible for the high performance of the checkers game player. By the mid'50s the term "Artificial Intelligence" was coined by John McCarthy of MIT at the 1956 Dartmouth Conference, the first conference devoted to AI. Later in 1958, he invented the LISP language. At almost the same time, Allen Newell, J.C. Shaw, and Herbert Simon wrote and demonstrated the Logic Theorist (LT), the first running Artificial intelligence (AI) program. The trio later demonstrated a General Problem Solver program. The decade ended with Marvin Minsky and John McCarthy starting a laboratory at MIT devoted to the study of Artificial intelligence (AI).

Law and Knowledge-based Systems

Artificial Intelligence deals with the development of cognitive models and computer programs to emulate the intelligence of human beings. In the initial early work in artificial intelligence, researchers and system developers attempted to develop general problem solvers. However, these efforts were met with a number of impediments. In the early 70's, Feigenbaum and associates suggested that the artificial intelligence techniques could be made more effective by adding domain knowledge. At this point it is worth to cite the following statement of Feigenbaum made in : "...general problem-solver's are too weak to be used as the basis for building high-performance systems. The behavior of the best problem-solvers these know, human problem-solvers, is observed to be weak and shallow, except in the areas in which the human problem-solver is a specialist. And it is observed that the transfer of expertise between speciality areas is slight. A chess master is dubious to be an specialist algebraist or an professional mass spectrum analyst, etc. In this view, the expert is the specialist, with a specialist's knowledge of his area and a specialist's method's and heuristics."

Artificial Intelligence:

Authors defined Artificial Intelligence (AI) in different ways. For example (Winston, 1984) has defined Artificial intelligence (AI) as “the study of ideas which enable computers to be intelligent.” (Kurzweil, 1990) defined Artificial intelligence (AI) as “the art of creating machines that perform functions that require intelligence when performed by people”.

According to (Lugar; Stubblefield, 1993) Artificial intelligence (AI) is “the branch of computer science that is concerned with the automation of intelligent behavior”.

The artificial intelligence is one of the computer science fields relating to improve the intelligence of computerization to emulation the human intelligence, and the expert systems one branch of the artificial intelligence, these systems implement duties popular implement by the especial and expert human. In the past decades, there have been numerous articles about the application of Artificial intelligence (AI) as “expert systems”, which are called by some investigator “knowledge-based systems” also.

Artificial intelligence technology

Artificial intelligence systems can be awfully powerful and are improving quickly. They offer outputs that be able to extremely accurate, replacing and, in several cases, far superseding human efforts. However, they do not replicate human intelligence. It requires to recognise the strengths of this different form of intelligence, and build understanding of the best traditions for humans and computers to effort together.

Accountancy & Artificial intelligence

Although artificial intelligence techniques such as machine learning are not new, and the pace of change is fast, widespread adoption in business and accounting is still in early stages. To build a positive vision of the future, that require to extend a deep understanding of how artificial intelligence can solve accounting and business problems, the practical challenges and the skills accountants require to work alongside intelligent systems.

Artificial intelligence (AI) and the profession

In the upcoming decades, intelligent systems must take over more and better decision-making tasks from humans. While accountant has been using technology for a lot of years to improve what they do and deliver more value to businesses, this is an opportunity to reimagine and radically improve the quality of business and investment decisions – which is the ultimate purpose of the profession.

Accountants want to help organisations and economies work better by giving good advice and making good decisions. After all, accounting is not an end in itself. All the activities associated with accounting ultimately aim to help people make good decisions about the allocation of resources, and hold others to account for their decisions. This underpins investment, growth and confidence in all organisations and economies.

More intelligent systems enable radically different approaches to this ultimate objective and the kinds of fundamental business problems the profession aims to solve. Investors require to gain confidence and trust in the financial results of companies; companies and governments require to ensure the correct levels of tax are paid; management requires to decide how to spend organisational resources, and be held accountable for those decisions. Solving these kinds of fundamental problems is essential for companies and economies to succeed and is at the heart of the accountancy profession.

There may also be new problems that can be transformed with new data and more intelligent systems. As an example, the UN Global Goals represent a broad consensus of what we, as humans, want the world and society to look like in the coming decades. In all cases, there is an enormous amount of work to do to achieve those goals. At the very least, these require effective measurement to enable informed decisions on the allocation of financial and other resources to achieve the goals. These also require accountability for those decisions.

The starting point for creating a longer-term vision is So to focus on the profession's ultimate purpose of better decisions, and identify the fundamental business problems that better decisions will solve.

Exploit Powerful Technologies

It is then significant to recognise and exploit the power of innovative technologies effectively. This report highlights the strength of machine learning approaches to AI, and deep learning methods in particular, which are regularly leading to major advancements in a lot of areas of research. But, it is a complex and ever altering technological context. Other areas of technology will interact with Artificial intelligence (AI) and have a significant impact on business in the future, like blockchain or quantum computing. In addition, the pace of alter in capabilities be capable of very fast, and the nature of learning based and information driven systems enable continual improvement.

To fully exploit powerful new technologies, these require to be clear about their unique characteristics and how they can help to solve real problems. There is characteristically a long time from structure a working technology to getting the utmost value from it. Regularly, technology can be a solution looking for a difficulty to solve, or simply enables us to replicate how these do things using different tools.

Instead, these require to encourage debate, interaction and learning between technology experts, business and the profession to reimagine the way that solve fundamental business problems with the help of new technologies.

In doing this, the profession also requires to be open to more profound change and avoid just defending or incrementally improving the status quo. Where Artificial intelligence (AI) enables greater insight from data, it helps human experts make better decisions and provide better advice. Indeed, evidence suggests that humans and computers working together in areas as diverse as chess and medicine produce better results than human or computers in isolation.

However, as systems continue to get more powerful, they will be able to move further into complex decision areas, potentially replacing humans altogether in a lot of cases and enabling entirely different solutions, services and models. When looking at the longer term, So, the profession must think beyond incremental improvements to existing processes. Furthermore, it requires to reflect on the specific skills and qualities that accountants bring to businesses.

This also means engaging positively in debates on, for example, the role of human judgement in more complex business areas. There may well be uniquely human characteristics, such as leadership, empathy and creativity, which will never be replaced by computers. And it should not underestimate the adaptability and ingenuity of humans. However, 'human judgement' is often just a substitute for lack of data – powerful computers with access to new sources of data may well supersede the require for human judgement in the vast majority of cases. Attempts to deny the potential of computers to surpass a lot of human capabilities, and simply to protect current models and ways of doing things, are likely to end in failure.

It is impossible to predict the extent to which computers will replace human decision-making over the next 20 to 30 years. There is much broader context and the long-term future of accountancy will ultimately reflect how this, as humans, see and shape our relationship with powerful systems. This will be influenced by a range of economic, social and political factors.

The technology of the future will also be very different to what business see today. As a result, a flexible approach is essential when thinking about the future. The skills and learning agenda for the future accounting professional in particular has been subject to a lot of debate between professional bodies, , employers and educators. Most would agree that accountants will require more hard skills in areas such as technology and data, as well as a greater emphasis on things like soft skills, critical thinking and adaptability. There also requires to be greater emphasis on life-long learning. However, there are competing longer-term visions of the future accountant – from highly qualified hybrid professionals, to lower-skilled workers, who use technology to access expert knowledge.

When business requires change, and all the relevant stakeholders agree, the profession is able to adapt. Professional bodies change their qualifications as market demands evolve. Accountancy organisations in business and practice innovate all the time to provide more value. This quality will become increasingly important for all stakeholders involved in the profession.

Impact Artificial intelligence

Accountants, as expert decision makers, use both ways of thinking – they apply their knowledge to specific situations to make reasoned decisions, although also make quick intuitive decisions based on extensive experience in their field.

Today, AI is being used for image recognition, object identification, detection, classification and automated geophysical feature detection. These are underlying tasks that once required the input of a human. Focusing on how artificial intelligence will impact accountants, AI will very soon help organisation to automate much of the routine and repetitive activities that are undertaken on a daily, weekly or annual basis. It will also help organisation to: empower quick decision-making create smart insights examine huge quantities of data with ease.

1. Predictive and forecasting solutions: Helping organisation's clients forecast the finances of their business is an extremely valuable element offered by organisation's practice. With Artificial intelligence (AI) integrated into the software, organisation will be able to provide a comprehensive and accurate insight for organisation's clients without the usual "manual heavy lifting" and number crunching behind report creation. On a day-to-day basis, being able to quickly and easily access up-to-date and truthful reports and forecasts can help organisation form a closer and more useful relationship with organisation's clients.

2. Smart assistants: In an organisation accountant who, during crunch time when seemingly every client is sending through their accounts, considers turning off organisation's contact no or email so organisation can get some work done. Fortunately, smart assistants might be able to provide organisation a helping hand.

3. Automatic tagging and allocation of transactions: The next two areas where AI will help organisation's accounting practice are also enabled by machine learning. This will save organisation time by correctly tagging transactions and assigning them to the right ledger account. Put simply, organisation's accounting software will learn from previous tagging decisions that are typically made according to rules that the accountant is aware of. Some of

these rules are intuitive however others can be surprisingly complex, at least from a computer's point of view.

4. Anomaly detection: Computers love data, of course, and when machine learning is applied to massive amounts of data—such as the yearly ledgers of a large company—then there are clear benefits. Organisation will be able to discover anomalies that may exist, and the process will be much quicker and take significantly less effort.

5. OCR solutions: Optical character recognition (OCR) isn't new although Artificial intelligence (AI) enhances its accuracy extensively and opens it to new usage scenarios. It always been possible to take out information or data mechanically from documents, this required a human to point out to the OCR software where the data was situated—something that as well meant the document layout could not be malformed with no further instruction. Computers have always known what numbers are, of course. That's what defines a computer. This means the salient data can be extracted to allow information or data to be allocated and/or processed by the software rather than by human action—even if the software hasn't seen a receipt like that before, or if the scanned document isn't particularly high quality.

Approaches to Artificial Intelligence

This approach had some success although it rarely produced results that could be seen as akin to human intelligence. While there were a variety of technical issues with such systems, they were ultimately defeated by the complexity of the real world, and the extent to which rely on intuitive thinking. Organisations were unable to articulate our knowledge and decision-making rules clearly enough. This supposed that systems could not manage with composite or ambiguous situation, or where possessions changed.

Recent successes in Artificial intelligence (AI) take a very different approach. This uses pattern acknowledgment and is known as machine learning. While there are a lot of fields of research into Artificial intelligence (AI), improvements in machine learning are the main drivers behind the hype around Artificial intelligence (AI) today and the focus of this report. By combining approaches in machine learning with developments in other areas of AI, such as knowledge representation and reasoning, computers can be used to complement and increasingly improve on both ways of human thinking.

Accountants following Artificial intelligence (AI)

Although Artificial intelligence (AI) techniques such as machine learning are not new, and the pace of change is fast, widespread adoption in business and accounting is still in early stages. In order to build a positive vision of the future, Organisation require to extend deep understanding of how Artificial intelligence (AI) can solve accounting and business problems, the practical challenges and the skills accountants require to work alongside intelligent systems.

Accountants apply their technical knowledge about accounting and finance to help businesses and stakeholders make better decisions. To support their decision-making and advice, accountants require high quality financial and non-financial information or data and analysis. This is reflected in a wide range of accountancy roles across business and practice to capture, prepare, check and communicate information or data, to undertake analysis, and to make a wide variety of decisions.

Accountants have been deploying technology for a lot of years to help them provide better advice and make better decisions. Technology can help them do this by solving three broad problems:

- It is providing better and cheaper data to support better decision-making;
- It is automatically generating new insights from the data analysis; and
- It is freeing up time to focus on more expensive tasks such as good decision making, solving of problem, managing advising, relationship building, strategy increase, and leadership.

So, it is important to identify accounting and business problems where machine learning is likely to be particularly fruitful and where problems may be less appropriate for these techniques. This will ensure that adoption efforts are driven by business require, rather than simply technology capabilities. To date, there has been limited use in real-world accounting although early research and implementation projects include:

- using machine learning to code accounting entries and improve on the accuracy of rules-based approaches, enabling greater automation of processes;
- improving fraud detection through additional sophisticated, machine learning models of normal' activities and better prediction of fraudulent activities;
- using machine learning-based predictive models to forecast revenues; and
- improving access to, and analysis of, unstructured data, such as contracts and emails, through deep learning models.

Challenges of Artificial Intelligence (AI)

Data volumes and quality are crucial to the success of Artificial intelligence (AI) systems. Without sufficient good information or data, models will basically not be able to receive or learn. Transactional accounting data is well-structured and high quality, and thus should be a promising starting point for developing models. Powerful models may require external sources of data, which may not always be possible to access at an appropriate cost. So, building experience of both successful and less successful cases will help to inform future adoption.

Another additional principled limit will be privacy and ethics, especially where Artificial intelligence (AI) systems are drawing on personal data. Primary, machine learning is increasingly becoming integrated into business and accounting software. As a result, a lot of accountants will encounter machine learning without realising it, similar to how Organisation use these capabilities in our online searching or shopping activities. This is how smaller organisations in particular are most likely to adopt Artificial intelligence (AI) tools. Second, conscious adoption of Artificial intelligence (AI) capabilities to solve specific business or accounting problems will often require substantial investment. Given the data volumes involved, substantial hardware and processing power may be required, even if it is accessed on a cloud basis. As a result, Artificial intelligence (AI) investments will likely focus on areas that will have the biggest financial impact, especially cost reduction opportunities, or those that are crucial for competitive positioning or customer service. Other areas, while potentially beneficial, may lack a strong investment case. Likewise, using machine learning to extend additional intelligent products in specialist accounting areas may lack the market potential to justify investment from software developers.

Conclusion:

Accounting has a wider institutional context, and regulators and standard setters also require creating their thoughtful of the application of Artificial intelligence (AI) and being comfortable with any linked risks. Without this institutional support, it is very difficult to achieve change in the areas of finance or accounting. So, the active participation of standard setters and regulators in these areas is essential. For example, standard setters in account will want to look at where accountant are using these techniques to gain evidence, and understand about reliable of this techniques. Such bodies are already assessment the impact of data analytics capabilities on finance and accounting should build on those discussions.

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Review on Coumarin and Its Derivatives for Their Pharmacological Activity

Ramkumar P. Dongre, Bharat B. Madavi, Amit L. Gadre, Anjali R. Gharpure

Arvindbabu Deshmukh Mahavidyalaya Bharsingi,
Tal-Narkhed, Dist-Nagpur. 441305 Maharashtra India.

Abstract:

The study of coumarin dates back to the 1820s when coumarin was first extracted from the Tonka bean by Vogel. Coumarin backbone compounds are a very important group of compounds because of their use in pharmacy and medicine. Properties and biological activities of coumarin derivatives have important role in development of new drugs. Heterocycles bearing benzopyran-2-one ring are known to have antimicrobial, anticancer and antioxidant activities. This review highlights the anti-inflammatory, anti-coagulant, anti-cancer activity and anti-malarial agent of natural and synthetic coumarins.

Keywords: Coumarins; Heterocycles; Pharmaceutical; biological applications.

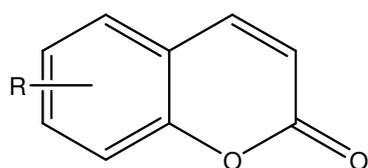
Introduction:

Coumarins (2H-1-benzopyran-2-one)[1] consist of a large class of phenolic substances found in plants and composed of fused benzene and α -pyrone rings (1). More than 1300 coumarins have been identified as secondary metabolites from plants, bacteria and fungi [2]. The prototypical compound is known as 1,2-benzopyrone or, less commonly, o-hydroxy cinnamic acid and lactone, and has been well studied.

Coumarins are mainly derived from secondary metabolites in green plants, fungi and bacteria [3]. This encouraged researchers around the world to investigate the nature and identity of this molecule. Since the reporting of the first synthetic route in 1882, the fraction has found its place in fabric conditioners, some perfumes, and the pharmaceutical industry, especially as anti-coagulants. warfarin and dicoumarol; Others such as naturally occurring coumarin moieties have also been reported (Figure 1). In addition, several synthetic coumarins with a variety of pharmacophoric groups at positions C-3, C-4 and C-7 have been intensively screened for various biological properties. In recent years, a considerable amount of research has been conducted on the use of coumarins as anti-HIV [4, 5], anti-cancer [6–10], anti-microbial [11, 12], anti-tumor [8, 13].] is being tested for. Antioxidant [14,15], Anti-Alzheimer [16], Anti-tuberculosis [17], Anti-platelet activity [18], COX inhibitor [19], Anti-inflammatory [20], Anti-asthma [21], Anti -Viral [22] and DNA gyrase inhibitors [23].

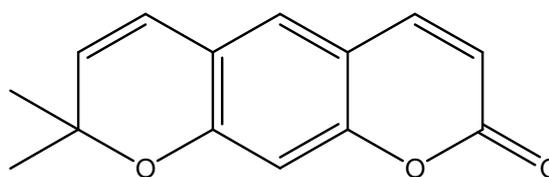
Classification of Coumarins

On the basis of basic classifications these are mainly classified into three types based on the chemical structure of the compounds. The physico-chemical properties and therapeutic applications of natural coumarins depend on the pattern of substitution.



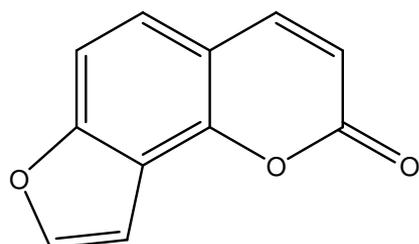
R=OCH₃, CH₃, OH, X

Simple Coumarins



Pyranocoumarins

(01)



Furocoumarins

(02)

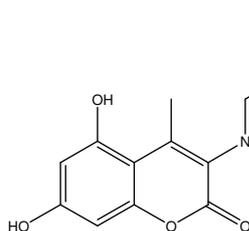
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Figure: 01. Basic classification of coumarins: chemical structures of the three main classes.

Biological and pharmacological activity of coumarins

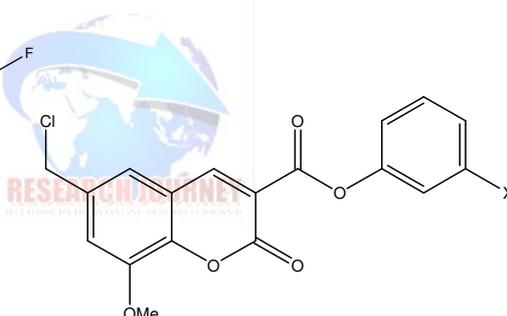
A. Anti-inflammatory Activity

Inflammation is an important sign of many diseases, such as osteoarthritis, Alzheimer's disease, atherosclerosis, and other diseases [24]. In addition, many cancers are associated with chronic inflammation. Therefore the command of inflammation becomes more important in the treatment of many diseases. A coumarin derivative IMLG5521 (04) has anti-inflammatory activity in rat lung edema, demonstrating its effect by inhibiting TNF- α expression, increasing VCAM-1 and ICAM-1 expression levels [25].



IMMLG5521

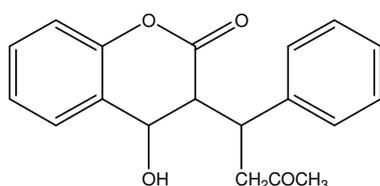
(04)



(05)

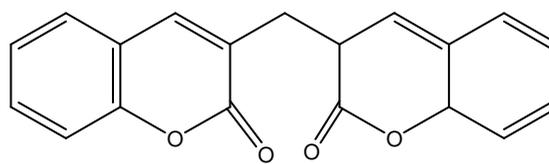
B. Anticoagulant Activity

The classic anticoagulant effect of specific coumarin derivatives, based on acenocoumarol and warfarin, (06) also remains one of the classic applications for this family.



Warfarin

(06)



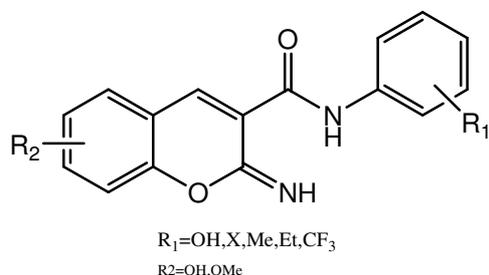
Dicoumarol

(07)

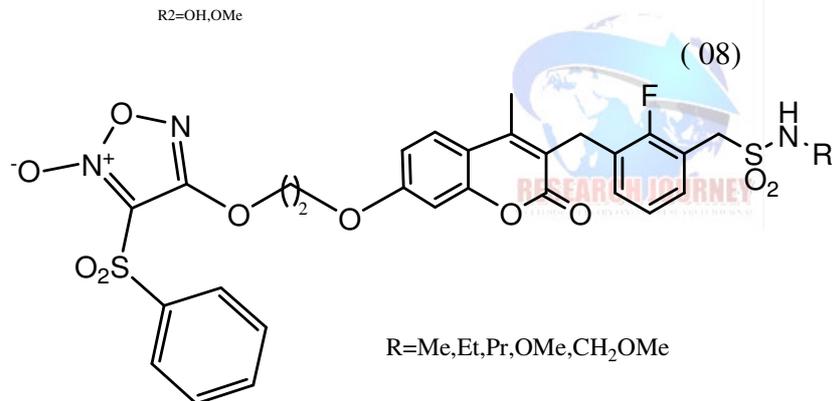
C. Anticancer activity

Cancer is the major threat to human health after cardiovascular disease Potent inhibitors (08) of aldo-keto reductase (AKR) presenting an iminocoumarin scaffold, with activities between 25 and 56 nM, have been described for the treatment of prostatic cancer [26]. The

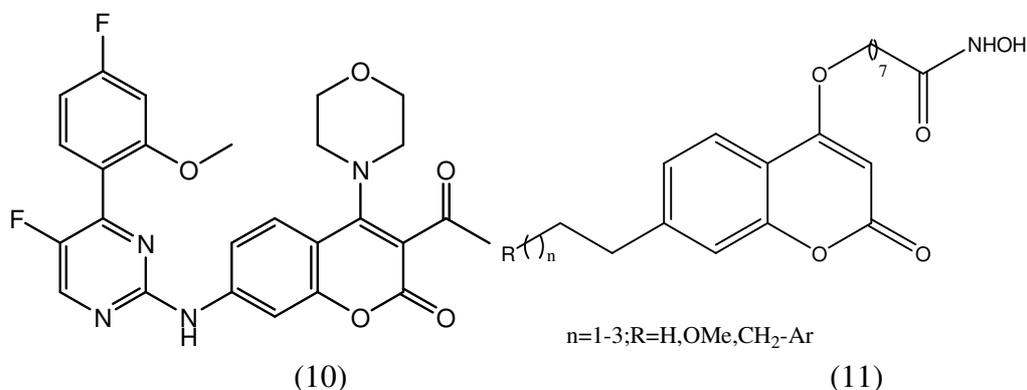
design of sulfamide 3-benzylcoumarin hybrids bearing an oxadiazole ring at position 7 (09) has allowed the preparation of new multitarget mitogen-activated protein kinase (MEK) inhibitors and nitric oxide (NO) donors, both with antiproliferative properties [27]. In other cases, the anticancer profile has been directed to other targets. Such is the case of new inhibitors of cyclin-dependent kinases, specifically CDK9, designing hybrids that incorporate an aminopyrimidine fragment to coumarin, both pharmacophores of known activity on these therapeutic targets [28]. We highlight here compound (10), with high activity and selectivity for these receptors in comparison with other kinases. Other important targets for cancer treatment, especially lymphomas, are histone deacetylases (HDACs). A series of coumarins (11) exhibiting a hydroxamate structure similar to HDACi vorinostat (SAHA) has been published [29]. The compounds show inhibitory activity in the nanomolar range, being higher in the case of propyl or methoxypropyl derivatives.



(08)



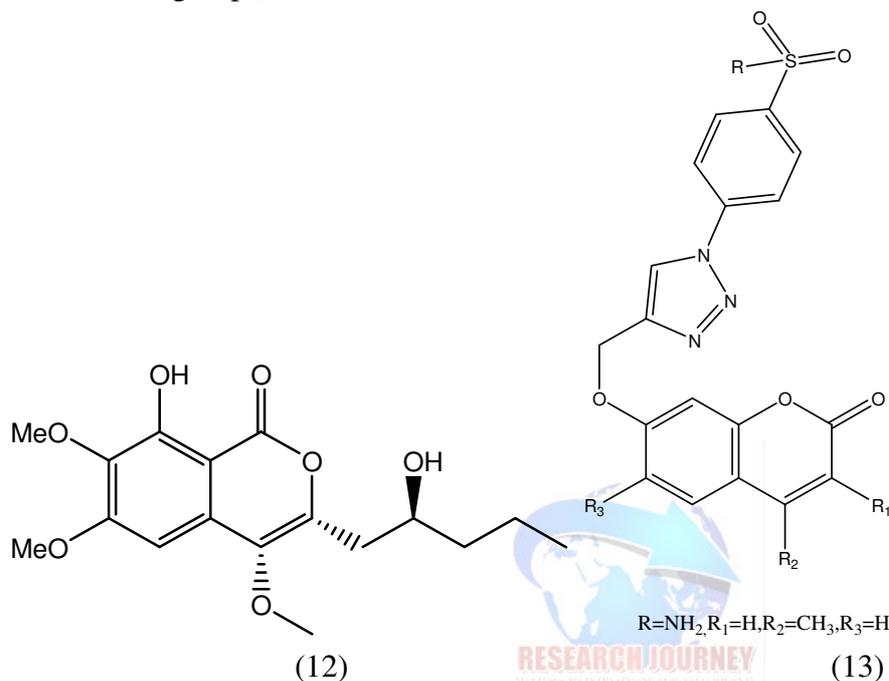
(09)



D) As anti-malarial agent

Malaria is one of the deadliest diseases worldwide and is an ap protozoal infection caused by female Anopheles mosquitoes. The following are five known protozoal species (P.

falciparum, *P. vivax*, *P. knowlesi*, *P. ovale*, and *P. malariae*). *P. falciparum* and *P. vivax* are associated with most cases of malaria [30]. Coronado et al. recently synthesized isocoumarin and investigated for anti-malarial potential. All compounds showed good activity. All compounds (12) exhibit potent anti-malarial activity against *P. falciparum* (CC50/IC50 = 675) values due to the presence of the methoxy group [31] N Batra et al. New sulfonamide-attached coumarin triazoles were synthesized and screened for anti-malarial potential. All compounds showed good anti-malarial activity. All compounds (13) showed potent antimalarial potential against the 3D7 strain of *P. falciparum* (IC50 = 3.64 μ M). The value may be due to the presence of the sulfonamide group [32].



Conclusions:

Coumarin derivatives have attracted much attention for their broad biological and pharmacological activities. We summarized the anti-inflammatory, anticoagulant and anticancer activity etc. for natural and synthesized coumarins. The most important of these biological activities is the anti-cancer effect of coumarins and the G-quadruplex interacting with coumarins may be a new target of protooncogenes for further cancer treatment. The review is important for the design and development of coumarin derivatives as novel lead molecules for disease therapy.

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Digital Information Sources as Part of Library Collection Development

Dr. Sangaraj Hosamani

Librarian

Sree Narayana Guru College of Commerce, Chembur, Mumbai

Abstract:

The research paper attempts to describe the importance of digital information sources in library collection development. Collection development in higher education libraries are transiting more in digital collection than conventional collection development likes print materials. Because, the digital information resources are part of the library collection development. Hence, the need arises of requirement of digital information sources among library collection development in higher education institutions. Especially to support today's learning and research in higher educational institutions there is requirement of digital resources among the library collection. Digital resources are aiding in providing nascent information to the learners and researchers faster than print media. The changed situation necessitates use of digitally enabled information resources for learning and research work. This research paper will also portray how and what are the various components of digitally enabled information sources to play a collective role in library collection development in libraries of higher educational institutions more efficiently. Overall, this research paper also tries to look in to various related aspects of digitally enabled information resources more effectively.

Key Words: Digital information sources, Digital library collection,

Introduction:

The library collection development of information resources is ongoing process with addition of new information sources as required by its users in every academic year. The role played by the digital information resources in library collection development is paramount one in the context of the study as well as it is need of the day. The major objective of any library is to include various type of information sources in its collection from time to time in order to upkeep the information requirement of its users. Day by day the library collection development will increase with addition of the new information storage materials in its collection. As per the fifth law of library science stipulates “ Library is growing organism” given by Dr. S R Ranganathan in 1931 has been proven by the growth of information sources in libraries from time to time. Because, it will become need of the day for the libraries to include digital sources among the collection development from time to time. Library users will utilize the library digital sources for their learning and research needs in order to find more efficient and authoritative information for their work. Transformation of more and more information sources in digital form compelled libraries to include in their collection development. It is to be considered as a revolutionary step. It is a step to prepare a libraries to move with the time. Emergence of the Internet and with information revolution have caused the birth of digital sources will be considered a benchmark step in the education sector. The effect of ICT and the Internet has changed the facets of information sources in libraries in digital form because ICT gives rise to more number of digital information sources. Recent study of research suggests that usage of digital information resources by the library users day by day. Thus, it necessitates the libraries to include the digital

sources day by day due to emergence of digital resources in more number. Accordingly, there will be a need in changing the method of collection development of library sources.

Digital resources can be helpful for library users in many ways for their learning and research activity specifically by saving their precious time in searching the required information sources for their needs. Scalability of digital information sources are more than conventional information sources in libraries. Digital information sources in libraries were shown significantly saves the library space for stacking and also in reaching out to its users in safer and faster mode with the help of Internet technology. It has also been shown by various studies that increase in proper usage of digital resources by implementing proper and suitable library information literacy programmes to greater extent. Undoubtedly, digital information resources will play a greater role in library collection development by helping the library users in completing their scholastic tasks in time.

Statement of the Problem:

Present research study has basically look into the reasons for inclusion of digital sources among library collection development in libraries of higher educational institutions. Also the role played by the digital resources among the library users in aiding the learning and research activity. Hence, the research problem selected for the study has to be stated as “Digital Information Sources As Part of Library Collection Development”.

Objectives of the Paper:

The research paper has the following objectives,

1. To know the need of digital information resources in library collection development.
2. To find out the characteristics of digital resources in libraries.
3. To made an effort in analyzing the review of literature published.
4. To draw the findings, suggestions and conclusions based upon the study.

Purpose of Research Paper:

Basic purpose of this research paper is to know the inclusion of digital resources as a part of collection development in libraries.

Scope of the Research Paper:

The definition of scope of the study is primarily to know the purposes of including the digital sources among library collection development.

Research Methodology:

In adherence to the requirements of the objectives of the research study, research design employed for the study is analytical and descriptive type. This research design is adopted to have greater accuracy and in depth analysis of research study. Present research study has its own limitations.

Research Questions to be Raised:

The following research questions will have to be raised in the context of the study are;

- 1) What are the Digital Information Resources ?
- 2) Why there is a need to include these sources in library collection development?
- 3) What are the outcome of the research study?

Definition of the Digital Information Resources:

Generally, information resources which are available in digital or electronic form and utilization of these sources with the aid of computer are called digital information sources.

Digital Resources in Libraries:

Always library collection development of digital resources in libraries of higher educational institutions consists of sources which are the importance of educational and research work. The nature of these digital sources are of online which can be accessible with the aid of computer. All these digital sources are also remotely accessible. The following table exhibits the components of digital resources in libraries.

Table 1 Exhibits Digital Resources in Libraries.

Sr. No.	Digital Source	Accessibility by Paid or Free
1	E – periodicals (Here it is newspapers & magazines)	Both
2	E- books	Both
3	E- journals	Both
4	Databases	Both
5	Shodhganga of INFLIBNET –Portal of full text Ph D theses.	Free
6	NDLI – National Digital Library of India	Free
7	NLIST of INFLIBNET – Portal for colleges in accessing e – books and e-journals	Paid
8	Shodhgangotri of INFLIBNET- Portal of Ph d synopsis	Free
9	Others	Both

It is clear from the table that, accessibility of digital resources for libraries are available through paid or free and some times in both the modes.

Need of Digital Resources in Libraries:

Various recent studies have outlined that the role of digital resources in supporting the academic needs of higher educational institutions is crucial one. Hence, the emerged situation necessitates the libraries to include digital information resources in library collection development from time to time.

Advantages of Digital Information Resources:

In the context of the research paper, we can note down few of the benefits of digital information resources as part of the library collection development are as follows,

- 1) Saving the stacking space in libraries.
- 2) Faster and easier to search leads to saving the precious time of the library users.
- 3) Remote accessibility to the resources for the library users.
- 4) It gives a new technological experience to library users in searching the digital resources.
- 5) Promotes the habit of self way of searching among library users.

Disadvantages:

Few of the disadvantages have to noted down in context of the study.

- 1) Most of the digital resources are costlier to procure for all the libraries. Hence it can become major barrier.
- 2) Always needs the availability of the proper bandwidth Internet facility.
- 3) Always needs uninterrupted electricity supply.
- 4) Always one has to sit in front of the computers or similar devices.
- 5) Sitting longer time in front of the electronic devices emits radiation. It affects health of the users.

- 6) Maintenance problem with non-availability of technicians in need of time and escalating costs for the same.

Tools Used for Gathering Information:

Useful information for the study has been gathered from secondary resources. Available information from secondary sources from the journal article and from the Internet are used. Further, all the information collected from different sources has been collated and presented herewith.

Review of Literature:

Few selected works of the researchers in the field have to be reviewed herewith as part of the research study

Agrey K & others (2021): Elaborated on the development, awareness, adoption, and usage of digital library (DL) resources at the university level.

Dukare D A (2020): Analyzed the basic concepts of digital libraries with more emphasis on digital resources also.

Kotur, M & Mulimani, M. (2019): Described a brief introduction to digital library resources. Kinds of Digital library resources, merits and issues are discussed.

Anyim, W O (2018): Presented a results of the study conducted on use e - resources for research Activities in University E-libraries in Kogi State Nigeria.

Kaur, R & Gaur, R (2017): Discussed about the collection development in academic libraries with special reference to digital era.

Findings of the Study:

We can note down few of the important findings of the research study are as follows,

- 1) Benefits of including digital information resources as part of collection development in libraries are many.
- 2) Various researchers are published papers on many issues related to advantages of including digital resources in library collection development, which is based upon outcomes of the review of literature published worldwide.
- 3) Digital information resources are providing new technological experience to library users.

Suggestions:

A few important suggestions have been noted down as a part of the discussion have been made herewith. The few suggestions are as follows,

- 1) Libraries should go for procuring the more number of various types of digital resources which will be helpful for library users in many ways. Because, it helps to serve library users in a better way.
- 2) Sources in digital form in libraries will help in easing stress among library space. Because physical resources require a lot of space for stacking in a proper manner.
- 3) Conduct of digital information literacy to library users in using the digitalized sources provided by the libraries is a must. Because it will make them self-reliant of their information requirements.
- 4) Properly structured digital information literacy skills will play a beneficial role among library users in using digitalized sources to the fullest extent.

Conclusion:

It is evident from the research study that, the benefits of including digital information sources as part of the library collection development are many. Collection development of information sources is ongoing process in libraries. Emerged situation necessitates to procure more number of digital information resources in libraries. Because, digital resources are fact of the day for library collection development. Hence, it is hoped that, study addressed issues related to theme of the article to some or wider extent.

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Green Financing - Pathway Towards Sustainable Future

Dr. Thakur Akash Ashok

Assistant professor

Department of Accountancy

G.E. Society's

R.N.C Arts, J.D.B Commerce & N.S.C. Science College, Nasik-Road 422101

Abstract: -

Today the world is plagued by high carbon emissions a bi product of conventional source of fuel. With the rise in population and standard of living having a vehicle has become the necessity of every household. In short high population entails to high tyre prints on the road. India as a country has taken up several measures to control the emissions by introducing standards known as Bharat Standards (BS). Green finance refers to the financial arrangements that are specific to the use for projects that are environmentally sustainable or projects that adopt the aspects of climate change. Environmentally sustainable projects include the production of energy from renewable sources like solar, wind, biogas, etc.; clean transportation that involves lower greenhouse gas emission; energy efficient projects like green building; waste management that includes recycling, efficient disposal, and conversion to energy, etc. Green finance is blossoming. Globally, the green bond market could be worth \$2.36 trillion by 2023. "The World Economic Forum's Green Horizon Summit focuses on how green finance can help in the recovery from COVID-19." Today the entire world is focusing not only alternate sources of fuel but Green and Sustainable fuel.

Introduction To Green Financing: -

The acceptance of global warming as a critical policy area across governments has heightened the demand for solutions to maintaining economic growth while assuring the ecological sustainability of our planet into the future. Wang and Zhi describe the green finance market as "a credit intermediary of environmental protection's capital "reflecting hope that the market mechanism will allocate funds toward more socially acceptable drivers of economic growth via social investment. However, the discussion is based around the need for balance between ecological outcomes and economic growth with the pendulum swinging from one to the other as circumstances (such as the Global Financial Crisis) dictate [4]. Indeed, driven by ever-increasing concerns surrounding global environmental sustainability and commerce's need to retain their social licence, sustainable investing has grown exponentially attracting USD 12 trillion in 2018 alone (Global Sustainable Investment Alliance, 2018). There are several mechanisms that companies can deploy to achieve a green reputation, and which will attract investors seeking green investments. As will be described below, our study particularly focuses on two emerging markets—green bonds and green loans.

However, both markets are still in their infancy. For instance, although the first green bond was issued in 2007 by the European Investment Bank, this market has only gained traction over the last 5 years. Notwithstanding the newness of the instruments, and while at first glance confining our scope to green bonds and green loans may seem overly restrictive, these instruments are seen as central to influencing increased responsiveness of companies to ecological sustainability. Indeed, these instruments are often viewed by central banks as a promising means of achieving a green economy via greening the financial system itself. Hence,

interest and implementation soared in recent years with a push by central banks as external political pressures, including the signing of the Paris Agreement, increased dramatically.

Objective of The Study: -

The objective of the paper is three folds-

- 1) To understand the need of green financing as a measure towards a sustainable future.
- 2) What are the available sources towards green financing and how to bridge the gap?
- 3) The way ahead

Limitations of The Study: -

There are limitations to this study that must also be recognized. Firstly, we have focused on two types of green financing only (bonds and loans) without considering the prospects for alternative instruments to be deployed with, perhaps, more effective outcomes. Additionally, this tight focus has meant that we have also considered the literature in the context of the incentivisation of the firms involved rather than from a policy perspective or a system-wide perspective. Thus, we have considered literature that posits findings associated with individual firms and their managers rather than considering wider issues including isomorphic pressure in industries and, other than noting its importance, policy prescriptions that may be used to counter the proclivities of the managers of firms. It is certain that contributors such as Dorry and Schulz and Wang and Zhi are right in their conclusion that green-focused policy frameworks are likely to be essential in moderating the behaviour of firms toward preferring ecologically friendly investment strategies regardless of the economically rational circumstances presented.

Methodology: -

The paper aims at collecting data through secondary sources and tries to find out the feasibility of Green Financing in the present context. The secondary sources include journals, published researched papers, articles, magazines etc. The study is purely qualitative in nature and reflects what India as an economy thinks about it.

Why Green Is A Buzzword?

In 2010, a report on environmental claims made in the North American market and the researchers expressed that green is a difficult word (Defining Green Products 2010). The complicating matters is the widespread use of terms such as natural, organic, planet-friendly, earth-friendly, ecological, non-toxic, biodegradable, plant-based, chlorine-free, and 100% compostable, which consumers erroneously assume are synonymous with green (TerraChoice 2009). It is no wonder that every company has a green story. The development and offering of green products and services positively impact consumer and investor perceptions of a company and it also improve the bottom line of the company (Mahajan 2012a, b). To define green, Tarantella et al. (1999) expressed that.

“Green evokes small incremental improvements in social practices, modern technology, and human habitats, while sustainability implies a revolution in organizing our personal and collective lives and inhabiting the planet.”

What Is Green Financing?

Höhne / Khosla / Fekete / Gilbert (2012): "Green finance is a broad term that can refer to financial investments flowing into sustainable development projects and initiatives, environmental products, and policies that encourage the development of a more sustainable

economy. Green finance includes climate finance but is not limited to it. It also refers to a wider range of „other environmental objectives, for example industrial pollution control, water sanitation, or biodiversity protection. Mitigation and adaptation finance is specifically related to climate change related activities: mitigation financial flows refer to investments in projects and programs that contribute to reducing or avoiding greenhouse gas emissions (GHGs) whereas adaptation financial flows refer to investments that contribute to reducing the vulnerability of goods and persons to the effects of climate change."

Zadek and Flynn (2013): "Green finance is often used interchangeably with green investment. However, in practice, green finance is a wider lens including more than investments as defined by Bloomberg New Energy Finance and others. Most important is that it includes operational costs of green investments not included under the definition of green investment. Most obviously, it would include costs such as project preparation and land acquisition costs, both of which are not just significant but can pose distinct financing challenges."

Price Waterhouse Coopers Consultants (PWC) (2013): "For the banking sector, green finance is defined as financial products and services, under the consideration of environmental factors throughout the lending decision making, ex-post monitoring and risk management processes, provided to promote environmentally responsible investments and stimulate low-carbon technologies, projects, industries and businesses."

Böhnke / Eidt / Knierim / Richert / Röber / Volz (forthcoming): "According to our definition,["Green Finance" (] GF [])] comprises all forms of investment or lending that consider environmental impact and enhance environmental sustainability. A key element of GF is sustainable investment and banking, where investment and lending decisions are taken based on environmental screening and risk assessment to meet environmental sustainability standards."

For green financing the following strategies are needed (Opportunities in Green Finance 2009):

- ✓ Allocate policy environment for promoting investment,
- ✓ Increase of public and private investment,
- ✓ Identify suitable projects for green finance,
- ✓ Identify the issues and approaches for green finance, and
- ✓ The role of various agencies in promoting green finance.

Scope Of Green Financing: -

Green financial products and service opportunities vary across the sectors and markets. Some of the features of these products will be as follows:

- ✓ Improves market shares efficiently- As green financing products are sustainable in nature, their demand in the market will be for longer terms.
- ✓ Increase profits in the business – Since the product is Green in nature both the seller and customer will be satisfied from the sale/purchase of the product an aim towards sustainable future. This will lead to more such purchases.
- ✓ Eco-friendly product - A relatively high degree of environmental awareness and government support for environmental sustainability in Europe has driven ever-growing consumer demand for eco-friendly products and services.
- ✓ Improved license to operate green financing - The green financing products will have higher demand in the world markets; as a result, government will improve the license of the green financing projects.

- ✓ Increase customer acquisition and loyalty - Products of green financing will be sustainable and smart; hence customers will have faith in these products and will be ready today premium price for the purchasing of green products.

Types of Green Financing: -

- ✓ **GREEN LOAN** - For the data on bank lending to the sustainable projects, we move to the conventional sources such as Database on the Indian Economy by the Reserve Bank that contains publicly available data on policy rates, aggregate credit, sectoral credit, and key financial ratios relating to Scheduled Commercial Banks (SCBs) in India. The number of individual SCBs in the sample varies from 88 in 2005 to 95 in 2019As part of the green finance initiative; the Reserve Bank has included the small renewable energy sector under its Priority Sector Lending (PSL) scheme in 2015. As at end-March 2020, the aggregate outstanding bank credit to the non-conventional energy sector was around `36,543 crore, constituting7.9 per cent of the outstanding bank credit to the power generation compared to 5.4 per centin March 2015.
- ✓ **GREEN BONDS** - Green bonds are the bonds issued by any sovereign entity, inter-governmental groups or alliances and corporate with the aim that the proceeds of the bonds are utilised for projects classified as environmentally sustainable. India started issuing green bonds since 2015. As of February 12, 2020, the outstanding amount of green bonds in India was US\$16.3 billion India issued green bonds of about US\$8 billion since January 1, 2018, which constituted about 0.7 per cent of all the bonds issued in the Indian financial market. Although the value of green bonds issued in India since 2018 constituted a very small portion of the total bond issuance, India maintained a favourable position compared to several advanced and emerging economies. Most of the green bonds issued since 2015 had maturities of five years or above, but less than 10 years. However, some issuers such as Yes Bank Ltd. (2015), Indian Renewable Energy Development Agency Ltd. (2017, 2019), Rural Electrification Corporation Limited or REC Ltd. (2017), Power Finance Corporation Ltd. (2017), Indian Railway Finance Corporation Ltd. (2017), Adani Renewable Energy Ltd. (2019)15 have issued green bonds with the maturity of 10 or more years. Renew Power Pvt. Ltd. has issued green bonds with maturity period of less than 5 years in 2019. Around 76 per cent of the green bonds issued in India since 2015 were denominated in US\$.Based on the Green Bond Impact report (2019) by the World Bank, it is estimated that the outstanding amount of Green Bond proceeds allocated to support the financing of such projects in India is US\$640mn, as on June 30, 2019.

Conclusion of The Study: -

The assessments of financial performance themselves are straightforward as these data appear in well audited financial reports for publicly listed companies. However, social factors remain an elusive concept. A Wall Street Journal article gives a lucid illustration on grading companies based on nonfinancial factors. Tesla, the electric carmaker, was ranked the top ESG performer in the MSCI KLD rating system in 2018, but at the same time was ranked the worst in the FTSE simply because FTSE's rating system evaluates the carbon emissions of a firm's factories rather than its products. To confuse things further, most scoring systems aggregate environmental, social and governance aspects into one single ESG score, which clouds the

interacting and countervailing effects among the three fundamentally different pillars of corporate social responsibility. For example, corporate governance, by definition, is intended to protect the returns of shareholders' investments whereas environmental and social commitments of the firm also improve the wellbeing of nonfinancial stakeholders such as customers and suppliers. Often the interests of shareholders conflict with those of other stakeholders. By simply combining environmental, social and governance performance, it is difficult to evaluate the true social performance of a firm. Another example is that a polluting firm could excel in its social commitments and corporate governance structure, resulting in a high overall ESG score. In view of the large number of ESG rating companies globally, the evaluation of a company's environmental performance is likely to be biased toward the scoring algorithm the companies are being assessed with. Our literature review finds that another significant challenge faced by most corporate environmental studies is the endogeneity problem. That is, social commitments, such as curtailing carbon emissions, investing in renewable energy, and cleansing production waste engender considerable costs for firms. Such costs could be so prohibitive that only companies performing well can afford to undertake a genuinely eco-friendly transformation.

At this juncture, the world is fighting COVID-19 and its impact on global economic growth. Undoubtedly, the immediate policy challenge is to kick-start the global economy. However, the pandemic has also offered an opportunity to all stakeholders to rethink about the policies, and financial and operational strategies that they have adopted so far and espouse an approach that is more environmentally sustainable in the long run. Green finance is an important mean that can facilitate such a shift towards sustainable economic growth.

Recommendations: -

In the 21st century, for the sustainable economic and financial development, green finance become as a global concern. All the nations are anxious about change of environment and environment pollutions. For green financing we need to:-

1. Identify the possible green projects and verify them whether they are green financing or not.
2. Finance to generate less waste; recycle waste into composts or other articles projects.
3. Increase finance in all green projects.
4. Awareness creation at grassroots level among rural populace is necessary.
5. Set up of green projects and facilitate replication.
6. Motivate the marginal and small holder farmers to green farming.
7. Plant trees where ever possible.
8. Encourage developers to build green buildings.
9. Finance in eco-friendly products.
10. Microfinance to be increased to prudently green products with very low interest rate.
11. Finance in rain water harvesting and solar lights and other renewable energy sources.

Challenges And Way Forward: -

Existing literature and global experiences suggest that integrated policy approach towards green finance is gradually gaining momentum. In India, while there have been improvements in public awareness and financing options, the major challenges could be high borrowing costs, false claims of environmental compliance, plurality of green loan definitions, maturity mismatches between long-term green investment and relatively short-term interests of investors.

In this section, we elaborate some of these challenges and discuss a few possible policy measures.

Borrowing Costs - The cost of issuing green bonds has generally remained higher than the other bonds in India. The average coupon rate for green bonds issued since 2015 with maturities between 5 to 10 years have generally remained higher than the corporate and government bonds with similar tenure. For the US\$ denominated green bonds with tenure of more than or equal to 10 years, the coupon rate was, however lower than the corporate bonds. It may be mentioned that most of the green bonds in India are issued by the public sector units or corporate with better financial health. It is evident from the fact that the private sector issuers of green bonds, on average, reported lower debt-to-assets ratio compared to the non-issuers of green bonds.

Borrowing Costs And Information Symmetry - High borrowing cost has been perhaps the most important challenge and our analysis indicates that it could be due to the asymmetric information. Therefore, developing a better information management system in India may help in reducing maturity mismatches, borrowing costs and lead to efficient resource allocation in this segment. It may be mentioned that to overcome such information gap, several countries including Australia, China, India, and the United States have database related to green building projects in the country (Shen et al 2020). While India does monitor greenhouse gas emissions through various reporting mechanisms including PAT (perform-achieve trade) and RPO (renewable purchase obligations), like many other countries it does not have a national measurement, reporting and verification platform for tracking climate finance (Jain, 2020).

Market Infrastructure Development - Given the large size of domestic market and much smaller penetration of green instruments so far, there remain vast opportunities to be tapped. In this context, some of the studies noted the importance of (a) increased coordination between investment and environmental policies and (b) an implementable policy framework for both national and state levels in addressing the existing frictions.

Other Public Policies - Other approach could be engaging with industry bodies that have taken initiatives towards expanding 'green buildings' that are designed to consume less water and energy resources, maintain better waste management and provide healthier spaces for living. The Government at all levels can possibly engage with these bodies to better assess their financial and operational needs. It may also undertake policies that make production and distribution of nonconventional energy profitable, especially for smaller firms

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Crop Insurance Under PMFBY Scheme in Tamil Nadu Based on NSS 77th Round Report

1. **K. Rajasekaran**, Research scholar, Department of Management Studies, VISTAS, Chennai, India
organicrajasekaran@gmail.com
2. **Dr. P. G. Thirumagal**, Associate Professor, Department of Management Studies, VISTAS, Chennai, India. tmagal.sms@velsuniv.ac.in

Abstract:

The National Sample Surveys (NSS) are being directed by the Government of India to collect socio-economic data employing scientific sampling methods. Seventy-seventh round of NSS conducted in 2019. Concerning Pradhan Mantri Fasal Bima Yojana (PMFBY) scheme is one of the item in the NSS 77th round schedule. It gives insurance coverage to food crops, oilseeds, and annual commercial/horticulture crops. This paper endeavor a Review of Crop insurance under PMFBY scheme in Tamil Nadu in view of NSS 77th Round. In light of report, Tamil Nadu has top five one state among the state in all size land classification agricultural households aside from 10+ ha category that have Crop insurance under PMFBY.

Keywords: Insurance, NSS, PMFBY,

1. Introduction

The National Sample Surveys (NSS) are being directed by the Government of India starting around 1950 to gather socio financial information utilizing logical examining strategies. Seventy-seventh round of NSS conducted during the period 1st January 2019 to 31st December 2019. NSS 77 th round covers the subjects 'Land and Livestock Holdings of Households and Situation Assessment of Agricultural Households' and 'Debt and Investment The principle objective of the "Overview on Land and Livestock Holdings of Households and Situation Assessment of Agricultural Households" is to evaluation indicators of ownership and operational holdings of all rural households. To create estimates connected to the situation of agricultural families like Economic well-being as measured by their consumption expenditure, income, productive assets and indebtedness, Agricultural practices, awareness and access to several technological progresses and advantage scheme in the field of agriculture. The reference period for the survey is the Agricultural year during July-2018 to June 2019. This paper attempts to study the Crop insurance under PMFBY (Pradhan Mantri Fasal Bima Yojana) scheme in Tamil Nadu based on 77 th round report. This scheme is implementing one of the farmers welfare scheme in all-India

2. Pradhan Mantri Fasal Bima Yojana (PMFBY)

PMFBY gives insurance coverage to food crops (cereals, millets and pulses), oilseeds, and annual commercial/horticulture crops. Different states have different list of crops which are brought under PMFBY.

It was launched from Kharif 2016 with aim to support production in agriculture by providing an affordable crop insurance product to ensure comprehensive risk cover for crops of

farmers against all non-preventable natural threats from pre-sowing to post-harvest period. The Scheme is being implemented across States/Union Territories (UTs).

Crop insurance under PMFMY scheme is one helps to achieve the Sustainable Development Goal (SDG 2) of End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

2.1 Administrative data coverage: The System can cover all Food & Oilseeds produces and Yearly Commercial/Horticultural Produces for which previous yield data is available. The scheme is compulsory for loanee farmers for notified crops. However, it is voluntary for other/nonloanee farmers who have insurable interest in the insured crop(s).

2.2 NSS coverage: If the agricultural household produced some crops during the last 365 days which were under the coverage of the scheme but did not avail the insurance coverage, the agricultural household was not considered under PMFBY.

2.3 Scope of comparison: In the administrative data under PMFBY, the same farmer may be counted multiple times. In this survey each agricultural households in rural areas covered under PMFBY was counted only once irrespective of on how many instances the farmer(s) in that household insured the crop.

3. Objective of the study

This present paper is an attempt to understand the following dimensions

1. To study the position of crop insurance under PMFBY from top Indian states.
2. To understand the status of crop insurance under PMFBY in Tamil Nadu and all-India.

4. Materials and Methods:

This paper attempts to study the Crop insurance under PMFBY scheme in Tamil Nadu through descriptive analysis and this paper is worked out from item number 21 of Block 4 in schedule 33.1: Land and Livestock Holdings of Households and Situation Assessment of Agricultural Households NSS 77th Round (January 2019 – December 2019) by the Government of India, Ministry of Statistics & Programme Implementation.

This paper were considered of the code – 1 category it addressed yes with respect to whether the household insured any crop under PM Fasal Bima Yojana during last 365 days? And the result were analyzed based on the Land category ha. viz., 0.01 to 0.40, 0.41 to 1.00 , 1.01 to 2.00, 2.01 to 4.00, 4.01 to 10.00, 10+ and all size

5. Result and Discussion

5.1 Crop insurance under PMFBY by State and Land category

Table 1. Number per 1000 of agricultural households that have Crop insurance under PMFBY by State and Land category								
S. No	Name of the Indian States	Land category (Ha)						All size
		0.01-0.40	0.41-1.00	1.01-2.00	2.01-4.00	4.01-10.00	10+	
1	Andhra Pradesh	41	137	208	339	490	360	189
2	Arunachal Pradesh	0	0	0	0	0	0	0
3	Assam	3	3	10	5	0	0	4
4	Bihar	3	13	32	27	102	0	10
5	Chhattisgarh	168	195	324	377	556	100	263

							0	
6	Gujarat	10	51	101	179	151	0	64
7	Haryana	40	82	383	540	738	417	217
8	Himachal Pradesh	9	32	136	82	196	0	31
9	Jammu & Kashmir	0	2	0	0	0	0	1
10	Jharkhand	15	68	107	142	189	0	55
11	Karnataka	15	38	71	102	214	107	64
12	Kerala	7	12	9	12	103	50	9
13	Madhya Pradesh	7	49	100	175	287	352	87
14	Maharashtra	13	85	190	277	339	395	150
15	Manipur	0	0	0	0	0	0	0
16	Meghalaya	0	19	0	0	0	0	7
17	Mizoram	0	4	0	5	0	0	3
18	Nagaland	2	0	0	0	0	0	0
19	Odisha	21	67	105	166	406	330	72
20	Punjab	0	0	6	0	0	0	1
21	Rajasthan	20	72	132	130	189	233	95
22	Sikkim	0	66	22	12	0	0	24
23	Tamil Nadu	28	180	223	330	396	22	148
24	Telangana	108	105	116	149	85	890	120
25	Tripura	2	5	0	0	0	0	3
26	Uttar Pradesh	10	15	22	64	69	357	16
27	Uttarakhand	0	41	17	166	318	333	24
28	West Bengal	19	43	90	86	0	0	30
29	Group of NE States	1	8	1	1	0	0	4
30	Group of Uts	0	11	13	22	0	0	6
	all-India	15	56	120	185	246	307	71

State vs. Land category wise number per 1000 of agricultural households that have crop insurance under PMFBY were presented in Table 1.

In all-India, 71 Number per 1000 of agricultural households who have Crop insurance under PMFBY. 10+ ha. land category of agricultural house hold were more benefitted the crop insurance under PMFBY scheme among the other category of agricultural house hold. Although in Tamil Nadu 4.01 to 10 ha. land category of agricultural house hold were more benefitted.

5.2 Crop insurance under PMFBY by Top ten State and Land category

1.1.1 Agricultural household: All size Land

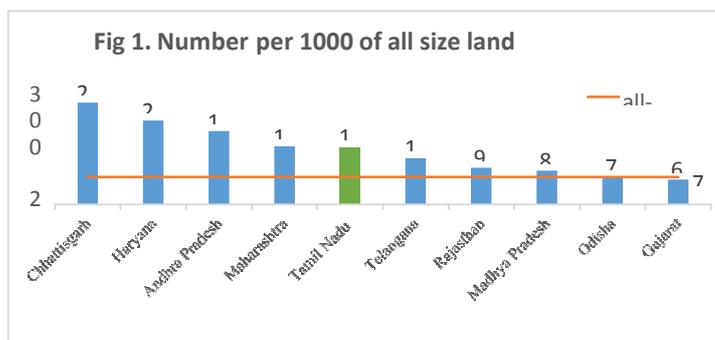


Fig 1. Shows among the top ten states Tamil Nadu have gotten the fifth spot, preceded by Chhattisgarh, Haryana, Andhra Pradesh and Maharashtra. These states were placed more than an all-India number 71 per 1000 of all size land agricultural households that have Crop insurance under PMFBY.

1.1.2 Agricultural household

(i) Land Category: 10+ ha.

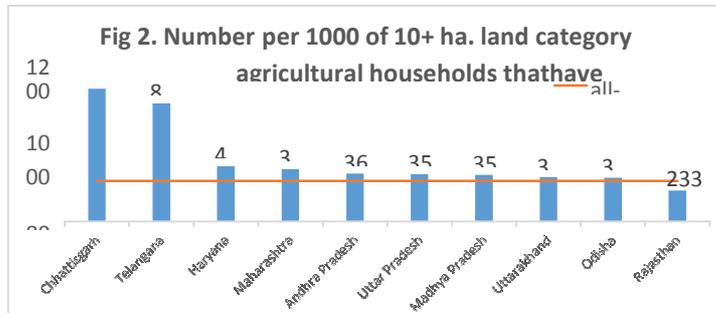


Fig 2. Shows, in the category of 10+ ha. land agricultural households that have Crop insurance under PMFBY, Tamil Nadu have not set with in top ten among the states. Furthermore the state of Tamil Nadu were positioned below the all-India of 307 number per 1000.

(i) Land category: 4.01 to 10 ha.

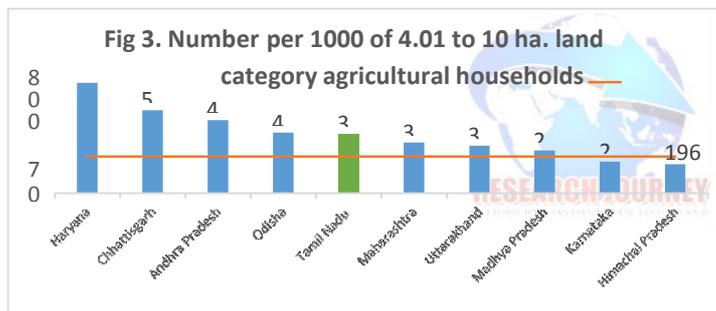


Fig 3. Shows, Tamil Nadu have placed with in top ten among the states. It have acquired fifth place continued by the Haryana, Chhattisgarh, Andhra Pradesh and Odisha that number 396 per 1000 of 4.01 to 10.00 ha land category agricultural households that have Crop insurance under PMFBY

(i) Land category: 2.01 to 4 ha.

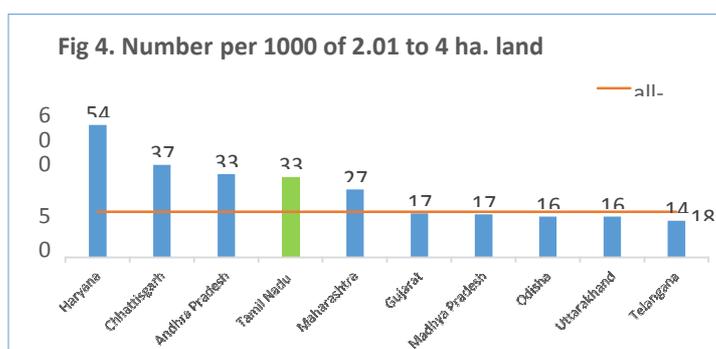


Fig 4. Shows, in the category of 2.01 to 4.00 ha. land agricultural households that have Crop insurance under PMFBY, Tamil Nadu have set fourth place with in top ten among the states. Furthermore the state of Tamil Nadu were positioned high in the all-India number of 185 for every 1000 for this category.

(iv) Land category: 1.01 to 2 ha.

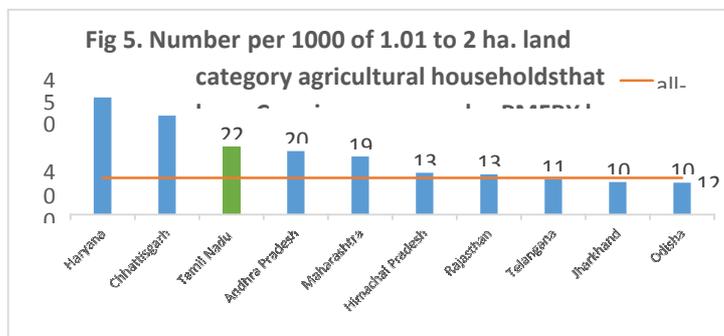


Fig 5. Shows, Tamil Nadu have stood with in top ten among the states. It has developed third place which number 223 per 1000 of 1.01 to 2.00 ha land category agricultural households that have Crop insurance under PMFBY

(i) Land category: 0.41 to 1 ha.

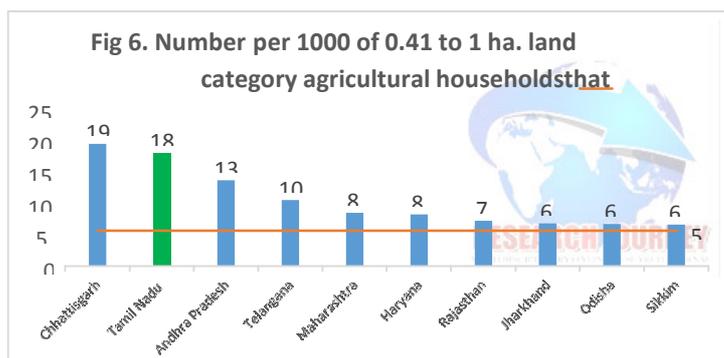


Fig 6. Shows, Tamil Nadu have developed second place which number 180 per 1000 of 0.41 to 1.00 ha land category agricultural households that have Crop insurance under PMFBY. More Agricultural household have PMFBY in this category.

(i) Land category: 0.01 to 0.40 ha.

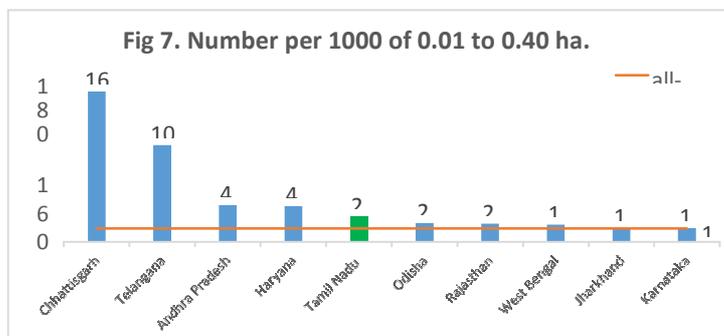


Fig 7. Shows, Tamil Nadu have placed with in top five among the states. It has established fifth place followed by Odisha, Rajasthan, West Bengal, Jharkhand and Karnataka which number 28

per 1000 of 0.41 to 1.00 ha land category agricultural households that have Crop insurance under PMFBY.

Conclusion:

PMFBY is one of the welfare scheme for Agricultural household in India. It gives insurance coverage to Agricultural and Horticulture crops. Different states have different list of crops which are brought under PMFBY. Based on the NSS 77 th round report the result concluded that Tamil Nadu have placed top five one state among the state in all land categories agricultural households except 10+ ha category that have Crop insurance under PMFBY. Initiative will be taken the available 10 + ha land categories agricultural households more in Tamil Nadu should brought under PMFBY.

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Application of Fund Allocation Methodology in Education Innovation System: Districts of West Bengal, India - A Case Study

Dr. Gargi Bhattacharya

Assistant Professor, Economics Department

Mahadevananda Mahavidyalaya, Barrackpore, Kolkata-700120, India

Abstract:

This paper attempts to start investigating regional variations in educational outcomes across the districts of West Bengal, taking into account selected educational infrastructural parameters that play a predominant role in effective human spermatogenesis, with the goal of better understanding the impact of the demographic dividend in the context of India's growth prospects. A composite education inequality index has been estimated here based on some selected parameters and applying principal component analysis (PCA) technique. In order to promote educational equity and social justice a general approach of funding allocation is proposed here. This rule is put into practice at the districts in the Indian state of West Bengal, which is the focus of current study. This approach of allocating funds may, however, be extended to all districts in India.

Key Word: Human Capital, Education Inclusivity, Social Infrastructure, Fund Allocation

Introduction:

Around the mid-1970s, India started to enjoy a demographic advantage as declining fertility rates shifted India's population's age structure in favour of the proportion of people in their working lifetime. Now, whether India is able to make use of the opportunity of this "Demographic Gift" has been a major issue of demographic research. The demographic process of India is predicted to develop a big and rising labour force, which is expected to have a positive impact on India's economic growth and prosperity in a variety of ways. But the recent employment figure of India does not give us very satisfactory pictures in this regard. The poor employability of the labour force, which is exacerbated by serious disease and a lack of access to quality education, is a major reason for the low rate of Indian youth workers in India (Chandrasekhar, Ghosh, Roychowdhury, 2006). Even if fertility may be essential but not sufficient for the demographic gift to be realised, a large working-age population does not ensure enough revenue if the quality of the future human resource remains poor. This future working group's quality can be achieved through improving the population's health and educational standing, both of which are interdependent and can be achieved through effective human capital production. Economic development of any country necessitates economic resources and human capital. To put it another way, human capital has been seen not just as an important driver of economic growth and poverty reduction, but also as an ultimate development goal to enhance human freedom (Squire 1993, Ravallion and Chen 1997, Schultz 1999, Sen 1999). The growing global focus on the Millennium Development Goals (MDGs) has further emphasised the significance of making real progress in key indicators of education and health.(Baldacci, Clements, Gupta and Cui 2008).

My present study is mainly concentrated on educational aspect considering some selected parameters pertaining to both elementary and higher education in India. Human development

relies on education, which is both a constituent and a means. Life expectancy, infant mortality, nutritional condition, poverty, and fertility are all affected. For example, higher education is anticipated to play a role in civic education and the construction of human capital for contemporary industries, agriculture, the service economy, and even the molding of human capital's reproduction.

West Bengal's IT sector may have reached a stage where it relies too much on migrant 'knowledge workers' for growth. However, despite the fact that technical human-power creation in West Bengal has lagged behind that of other major states, the growth of "citizenship education" should not be discounted as a less essential component in state development because of its relative prominence in the state. According to the NSSO Survey conducted in 2004-05, a large percentage of West Bengali kids drop out of school after the eighth grade. The state's literacy rate was 565 out of a total population of 1,000 adults and teenagers. When compared to the average for India, Kerala and Assam had ratios of 727 and 663 people per thousand in the same age range in 2004-05, respectively, which is on the high end. Either way, for the most majority of students, college is no longer a top priority; instead, they begin looking for work as soon as they finish their secondary schooling. It's also possible that there are supply-side bottlenecks that need to be addressed immediately once in order to reduce the drop - out rates.

This enormous disparity between rich and poor has long been an issue in India, but the larger issue that has to be addressed is inequality of opportunity, which may lead to an unequal schooling outcome as a result. Varying areas of India have different educational outcomes and educational infrastructure. Many sorts of public investment can also be used to reduce inequality in addition to their function in promoting the economy. (*World Development Report, 2010*). Just distribution of social infrastructure may lead to sustainability in many ways by mitigating common displeasure. Otherwise, widespread public discontentment may turn the society susceptible. Real-world conflicts are caused by dissatisfaction, which in turn leads to violence, terrorism, and so on (Das 2011). In this context, social infrastructure refers to the facilities and systems that support education, health care, community development, income distribution, employment, and social welfare. As a matter of fact, the term "social infrastructure" encompasses a wide range of government services.

Considering this, the present study tries to study the regional inequality in West Bengal in terms of the one focal area of social infrastructure viz. education (based on some selected variable in primary and higher education). In order to alleviate regional disparity and to ensure equity in education and social justice government of India can take an initiative to disburse some kind of development grant to the backward districts. But which principle should be adopted towards allocation of the fund is a major question.

Due to the fact that the education-poverty is multidimensional, Duclos, Makdissi, and Wodon (2005) have proposed poverty-dominated programme reforms of allocating funds to the target group of population, but this technique cannot be applied in the current case because the education-poverty is multidimensional (including elementary as well as higher education related parameters). The Ministry of Panchayat and Rural Development of the Government of India has identified 250 backward districts out of 601 based on certain development indicators pertaining to health, education and infrastructure and arbitrary weights are assigned to the parameters towards allocation of development grant.

The research may be expanded to all districts in India, notably the districts of 16 main states where more than 95% of the people in India reside, as education sector development is essentially the responsibility of the central government. The disaggregated implementation of our general rule is now possible. In our research, we used the West Bengal districts as an example of how to implement this rule.

Objectives of the study

The following research objectives have been chosen in this study because of the importance of education infrastructure as a driving factor for economic and social development.:

A. For the purpose of comparing the districts of West Bengal in terms of their EI index (calculated using Principal Component Analysis for two time periods and based on four major EI criteria for both primary and higher education), 2001 and 2011.

B. To devise and implement a government fund allocation system for the distribution and payout of some type of development grant. An additional goal of such a research is to provide guidance on how a district might allocate funds among various education components in order to combat deprivation on the one hand and to ensure education equity on the other.

In order to achieve inclusive growth and social justice, such a research is considered to be of some value in developing public interventions and determining priorities.

Methodology and Data Source

The focus of the research is on the West Bengali districts. However, Kolkata has been removed from our study since it is an outlier.

Methods

Studying educational infrastructure in West Bengal, India, is the goal of this research. The distribution of academic materials in West Bengal's districts is examined. From 2001 through 2011, two periods of time are studied. District level Education Infrastructure Index (EII) has been constructed by applying the Principal Component Analysis (PCA).

For construction of the Education Infrastructural Index (EII) for the districts of West Bengal four parameters have been chosen. These are as follows:

1. Number of Primary Schools per lakh of eligible age-cohort (6- 11 yrs.) [X₁]
2. Number of Primary Teachers per lakh of eligible age-cohort (6- 11 yrs.) [X₂]
3. Number of Students enrolled per lakh of eligible age-cohort (6- 11 yrs.) [X₃]
4. Number of colleges (both degree colleges and colleges of technology under WBUT) per lakh of eligible age-cohort (18- 22 yrs.) [X₄]

Though the third variable is an outcome variable, it has been included in the study as it is representative of the environment and surroundings in schools – for instance, the provision of mid-day meal influences student enrolment in schools positively. For the construction of EII, we used the PCA technique where PCA is the construction of new variables (PC_j) called principal components (PC_i) that are linear combinations of the X's and artificial as well as orthogonal in nature from a set of variables (i=1, 2, 3.....k) (Pett et al, 2003; Johnson et al, 2006). The standardised values of the original Xs have been evaluated using PCA.

$$PC_1 = a_{11}Z_1 + \dots + a_{14}Z_4 \dots \dots \dots (1a)$$

.....

$$PC_4 = a_{41}Z_1 + a_{42}Z_2 + \dots + a_{44}Z_4 \dots \dots \dots (1d)$$

Here, Z_i is the standardized value of Y_i and PC_j =Principal Component of j -th indicator, $j=1,2..4$. and $a_{ij} = r(PC_j, Y_i) =$ Jth original variable/parameter Factor Loading on Ith PC. $r(PC_j, PC_i) = 0$; $i \neq j$.

The EII for a given district was created using equation (2) and (3) only two PCs were retrieved using Kaiser Normalization and Scree Test criteria .

$EII=[\omega_1.(PC_1)+\omega_2.(PC_2)]$ (2) where, $\omega_1= \lambda_1/(\lambda_1+ \lambda_2)$ and $\omega_2= \lambda_2/(\lambda_1+ \lambda_2)$. PC_1 =first principal component and PC_2 =second principal component. λ_1 and λ_2 are corresponding weights of PC_1 and PC_2 .

For studying inequality in education infrastructure, the present paper uses three variables namely Student-Teacher Ratio, Student-School Ratio, and Teacher-School ratio (at elementary education level) and student-college ratio, villages having colleges(%), graduates(%), diplomas (%) (in higher education level).

Rule of Fund Allocation: A Theoretical Model

Let us denote the index of education infrastructure derived earlier using equation (2) for m -th district to be EI_m , where $m=1,2.....k$. Fund Allocation Principle Rule can be suggested as: G_m =Share of development fund of m -th backward district among k number of districts such that:

$$\sum_{m=1}^k G_m = 1$$

The proportion of backwardness of the m -th District be: $PB_m = \left(\frac{1 / E I_m}{\sum_m 1 / E I_m} \right)$ (3)

Districts are supposed to be ranked according to the absolute value of PB_m such that the district with highest value of PB_m must get the maximum proportion of fund and vice-versa. Keeping in mind this issue, we consider the following equation:

$$G_m = \left(\frac{1 / E I_m}{\sum_m 1 / E I_m} \right) = PB_m$$
(4)

Therefore, if the total fund sanctioned for all the backward districts is F , then amount of fund to be disbursed for m -th backward district will be F_m , where $F_m = F.G_m$ (5)

In dealing with the second question of allocating funds to different RCH components contributing to backwardness within a district, the PCA methodology as described earlier finds out the appropriate weights to be attached to various educational components. In order to minimize the quantum of background work in devising appropriate weights, the most suitable weightage scheme, which is practically applicable in ground reality will be an appropriate average of weights found for a specific component from all the backward districts within a state. This is formulated as follows:

It is assumed that only two PCs have been extracted (because 1st and 2nd PCs extract the maximum possible proportion of variability of the data) as represented by the following equations:

$$\left. \begin{aligned} PC_1 &= a_{11}Z_1 + \dots + a_{14}Z_4 \\ PC_2 &= a_{21}Z_1 + a_{22}Z_2 + \dots + a_{24}Z_4 \end{aligned} \right\}$$

.....(6)

Where, a_{ij} =factor loading, $i=1, 2; j=1, 2, \dots, 4$; PC_i = i -th Principal Component ($i=1, 2$).

In a particular PC, the factor loadings or the weights [a_{ij}] corresponding to a particular variable or parameter which is endogenously determined, always remains constant across all the districts. Variability occurs across the districts due to the different values of the parameters. Devolution of fund should have the following weightage scheme for seven deprivation parameters or factors as described below:

Let us define:

$$W_1 = \left[\frac{|a_{11}| + |a_{21}|}{\sum_{j=1}^4 |a_{1j}| + \sum_{i=1}^4 |a_{2j}|} \right], W_2 = \left[\frac{|a_{12}| + |a_{22}|}{\sum_{j=1}^4 |a_{1j}| + \sum_{i=1}^4 |a_{2j}|} \right] \dots W_4 = \left[\frac{|a_{14}| + |a_{24}|}{\sum_{j=1}^4 |a_{1j}| + \sum_{i=1}^4 |a_{2j}|} \right] \dots \dots \dots (7)$$

Given that, $\sum_{j=1}^4 W_j = 1$, a_{1j} =factor loading of the j -th parameter in the first PC for $j = 1, 2, \dots, 4$.

Similarly, a_{2j} =factor loading of the j -th parameter in the second PC for $j = 1, 2, \dots, 4$

Because the factor loading [$a_{ij}=r(PC_i, X_j)$] essentially reflects the correlation coefficient between PC and the original variable, the absolute value must be taken. If not, the denominator may fall to zero. One can take a square of the numerator and sum of the squares of a_{ij} in the denominator of W_j . Here, W_j =share of the weights allocated for the j -th parameter or factor. Therefore, the social planner may disburse the total fund based on the share of weights of the corresponding parameters. Now, the question arises how much amount of fund to be spent by the first backward district on different education parameters? This is somehow complicated because the incidence, depth and severity of the deprivation in different parameters among the deprived districts do vary to a large extent. However, the general rule suggested here is as follows:

Assume, all the backward districts allocate funds in fixed proportion of weights of the deprivation parameters:

$F_m.W_j$ =Fund allocated by the m -th backward district on j -th parameter (X_j)

Therefore, if we add total funds among all the backward districts, we have:

$$\sum_{j=1}^4 \sum_{m=1}^k (F_m.W_j) = F = \text{Total Fund} \dots \dots \dots (8)$$

Data Source

District level secondary data for West Bengal for various years has been used in the present study. The Statistical Abstract of West Bengal—various topics has been used to gather data. Annual Report of the Bureau of Applied Economics and Statistics—relevant problems; the District Statistical Handbooks published by the Ministry of Education District census reports for 2001 and 2011 are also included in the Economic Review..Technological college data released by WBUT.

Results and Discussion

The current research focuses on social infrastructure, geographical disparities, and discontent.. Here disparity among the districts has been measured in terms of inequalities in social infrastructure provisions through primary and higher education over time. It then tries to find out the intensity of the mentioned deficiency in governance by studying the trends in

different inequalities (whether convergent or divergent) and assessing the relative positions of the districts in terms of public provisions.

Relative Position of the Districts of West Bengal in terms of EII:

At two points in time (2001 and 2011), we used the "Principal Component Analysis" approach to estimate the EII for the 17 districts..

The values of Education Infrastructure Index (EII) over time at 10-year intervals reveal that Nadia is consistently holding the number one position over time among the districts of West Bengal. Hooghly, Nadia, Haora, Puruliya and Bankura are consistently among the top five districts of the state. Among the lower ranked districts, South 24 pargana, Dakshin Dinajpur and Purba Medinipur are worse than the others. Some districts like Uttar Dinajpur, Puruliya, Nadia, Murshidabad had managed to improve their relative position over time; where as some districts like North 24 parganas, Koch Bihar, Darjeeling deteriorates over time in respect of their relative position.

Table 1: EII across the Districts of WB in 2001 and 2011 (Respective Ranks are in Parenthesis)

DISTRICT	EII-2001	EII-2011
Bankura	492.1305(7)	699.9654(4)
Bardhaman	481.0996(8)	670.5479(9)
Birbhum	472.5278(9)	657.6992(11)
Dakshin Dinajpur	186.7398(18)	261.4106(18)
Darjiling	546.602(2)	684.3184(7)
Haora	535.0734(3)	687.3725(6)
Hugli	558.4153(1)	704.9103(2)
Jalpaiguri	438.0721(11)	609.0195(12)
Koch Bihar	492.4716(6)	677.4573(8)
Maldah	444.9479(10)	658.3933(10)
Murshidabad	429.0718(12)	689.7729(5)
Nadia	516.5532(4)	711.4021(1)
North 24 Parganas	277.4725(14)	380.3347(15)
Pachim Medinipur	316.8797(13)	391.7107(13)
Purab Medinipur	267.7608(16)	335.7456(16)
Puruliya	507.7482(5)	704.7507(3)
South 24 Parganas	226.7888(17)	330.028275(17)
Uttar Dinajpur	271.643(15)	382.0483(14)

Source: Author's Estimation

Inequalities in terms of student-teacher ratio, student-school ratio and ratio of teacher to school bear significant implications for regional disparities in education infrastructure. These have direct policy implications too. The student-teacher ratio marked high and acute inequality in two time points in GE (2) indicating disparity in both the lower and upper tails of the distribution. The student to school ratio also marked acute disparity during the same period in all the GE measures. The study period reveals that inequality in the ratio of teacher to school marked relatively high inequality in all the measures of general entropy class during the period again inequality is increasing over time from 2001 to 2011. This calls for serious policy attention. Extent of inequality in some selected higher education infrastructure and outcome variables are shown in table 3. It is found that in GE(2) measure overall inequality in terms of two outcome

variables like number of graduates and diplomas in eligible age group is falling over time which is good. But regional imbalance is aggravating across the districts in terms of the percentage of villages in the districts having colleges which should be addressed to reduce the disparity.

Application of Fund Allocation Rule across the Districts of West Bengal:

On the basis of four education infrastructure parameters as mentioned earlier (X_1, X_2, X_3 and X_4) education infrastructure index (EII) of 2011 and proportion of backwardness of each district (PB) for the same year have been computed to apply the fund allocation principle. The percentage of backwardness in WB's 18 districts has been calculated, and the total amount provided to each district is decided based on this percentage..Then component specific fund allocation has been done for each of the 18 districts on the basis of the fixed proportion of weights; where weights have been endogenously determined within the data matrix. Results are reported in table 4.

Table 2: District and Education Infrastructural Component Specific Fund Allocation using Equation (4) and (7) for the year 2011

District	G_m	F_m	$F_m W_1$	$F_m W_2$	$F_m W_3$	$F_m W_4$
Bankura	0.04044 9	0.040449 F	0.012677 F	0.012841 F	0.012158 F	0.002773 F
Bardhaman	0.04222 3	0.042223 F	0.013233 F	0.013404 F	0.012691 F	0.002895 F
Birbhum	0.04304 8	0.043048 F	0.013492 F	0.013666 F	0.012939 F	0.002951 F
Dakshin Dinajpur	0.10830 7	0.108307 F	0.033944 F	0.034383 F	0.032554 F	0.007425 F
Darjiling	0.04137 3	0.041373 F	0.012967 F	0.013134 F	0.012436 F	0.002836 F
Haora	0.04119	0.04119F	0.012909 F	0.013076 F	0.012381 F	0.002824 F
Hugli	0.04016 5	0.040165 F	0.012588 F	0.012751 F	0.012072 F	0.002754 F
Jalpaiguri	0.04648 9	0.046489 F	0.01457F	0.014758 F	0.013973 F	0.003187 F
Koch Bihar	0.04179 2	0.041792 F	0.013098 F	0.013267 F	0.012562 F	0.002865 F
Maldah	0.04300 3	0.043003 F	0.013477 F	0.013652 F	0.012925 F	0.002948 F
Murshidabad	0.04104 6	0.041046 F	0.012864 F	0.013031 F	0.012337 F	0.002814 F
Nadia	0.03979 8	0.039798 F	0.012473 F	0.012634 F	0.011962 F	0.002728 F
North 24 Parganas	0.07444 1	0.074441 F	0.02333F	0.023632 F	0.022375 F	0.005104 F
Paschim Medinipur	0.07227 9	0.072279 F	0.022653 F	0.022946 F	0.021725 F	0.004955 F
Puraba Medinipur	0.08432 7	0.084327 F	0.026429 F	0.026771 F	0.025347 F	0.005781 F
Puruliya	0.04017 4	0.040174 F	0.012591 F	0.012754 F	0.012075 F	0.002754 F

South 24 Parganas	0.08578 8	0.085788 F	0.026887 F	0.027234 F	0.025786 F	0.005881 F
Uttar Dinajpur	0.07410 7	0.074107 F	0.023226 F	0.023526 F	0.022275 F	0.005081 F

Source: Author's Estimation

It is found from the above Table-6 that the maximum share of fund is to be disbursed in Dakshin Dinajpur followed by South 24 Parganas. Because maximum deprivation measured by PB_m is found in Dkshin Dinajpur .Using equations (7), we have estimated the value of $W_1, W_2...W_4$. The numerical values are given below:

$$[W_1 W_2 W_3 W_4] = [0.313408 \quad 0.31746 \quad 0.300574 \quad 0.068558]$$

The proportion of weights of each parameter differs; the maximum value is assigned to parameter-2 (namely Number of Primary Teachers per lakh of eligible age-cohort (6- 11 yrs.)) followed by parameter-1 (that is to say, Number of Primary Schools per lakh of eligible age-cohort) and the minimum value is found in parameter-4 (namelyNumber of colleges (both degree colleges and colleges of technology under WBUT) per lakh of eligible age-cohort). The differential weights of the parameters clearly indicate differential treatment. Parameter-2 and 1 are related to the infrastructure of primary education. So, it is clear that to mitigate the gap in higher education initiative should start from the elementary education since it gives the maximum return. The present rule of allocation of fund is an attempt to ensure educational infrastructure equity among the districts in West Bengal.

Conclusion:

Despite the fact that we've made significant progress in literacy and education since Independence, we still have a long way to go before we reach our ultimate objective of universal primary education for all people. The Government of West Bengal has introduced a mid-day meal programme in order to promote the receptivity of children to education, particularly among children from the less fortunate parts of society.

Another way to lower the number of out-of-school children is to participate in preventative health measures. Another idea for raising enrollment in elementary schools is to initiate medical treatment drives in schools at regular intervals that account for children' different conditions of health. In order to get the higher return major focus should be given on the development of the elementary education system as the process of human capital accumulation starts from the very child hood. At the same time, a lack of educational quality at the elementary and secondary levels has a detrimental impact on students' academic achievement, their productivity, and their involvement in higher education. A significant increase in public funding for the construction of social infrastructure connected to elementary and secondary education is highly recommended. A number of initiatives should also be bolstered so that suitable actions may be made to reduce regional disparities in the supply of educational facilities at the disaggregate level. One of the corrective solutions indicated in my current study is the disbursement of a development grant. When the PCA method is used to identify the backward districts, this plan is straightforward, reasonable, scientific, and consistent with the decentralised planning process in calculating how much money should be allotted to them. Though we have four infrastructural parameters of education, only two PCs are extracted based on the eigen values. Therefore, it is easy to identify which parameter is to be given priority just by looking the

weights or factor loadings of the PCs. Keeping in mind the needs and priority, the district administration can use cost effective method in implementing different programs relating to those parameters. In order to strengthen as well as for proper implementation and execution of different developmental programmes, some incentive mechanism can be introduced.

If there is fiscal constraint, the planner may reduce the number of districts towards allocating funds. This is possible by picking up those districts which lie above the mean value of deprivation. This rule of construction of indices and the corresponding allocation principle is equally applicable in case of other deprivation such as health and physical (including financial) infrastructure across different administrative units of an economy characterized by high degree of inequality. The present paper is an attempt towards achieving inclusive growth and to ensure equity in respect of some infrastructural components of both primary and higher education across the districts of West Bengal. During Covid pandemic era many innovative teaching learning method have been developed. Government should give much focus on this matter so that benefit of this innovation in education system becomes more inclusive.

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Herbal Remedies for Treatment of Neutropenia –Updated Review

Mugdha Arvind Joshi¹, Manasi Arvindrao Joshi²

IVM's Indrayani Institute of Pharmaceutical Education and Research,
Talegaon Dabhade, Tal. Maval, Dist. Pune.
Arvindbabu Deshmukh Mahavidyalaya, Bharsingi.

Abstract:

In India, we are using different plants for the treatment of different types of disorders and diseases. We know the importance of secondary metabolites present in the plant from about 7000 years ago. Many of times those phytoconstituents are used for the improvement of immune response. Neutrophil cells are one of the components of natural immune system of the body. Neutropenia is the condition in which the count of neutrophil cells is decreased which results in a decrease in the immune response of patient. Neutropenia is generally associated with the viral infections such as HIV, TB and leukemia condition. And to treat this condition of neutropenia many herbal remedies can be used. In the world, about 10 million cases of cancer are found every year. And 1 million people die every due to HIV. And when HIV is associated with neutropenia it is risky for the patient life by using herbal remedies Neutropenia can be treated. Guduchi, Turmeric, Amla, and punarnava are useful for management of Neutropenia.

Keywords: - Neutropenia, secondary metabolites, leukemia, Phytoconstituents

Introduction:-

Normal values for the total WBC and absolute neutrophil count (ANC) change from childhood into adolescence. Values of the ANC from 1 year of age slowly increase throughout childhood until the adult value is achieved during adolescence, Normal neutrophil counts must be stratified for age and ethnicity. The lower limit of the ANC is 1000/ μ L in white children 2-12 months of age and 1500/ μ L at more than 12 months of age.[1] Neutropenia is considered as a decreased number of neutrophils in the blood. When neutrophil count decrease from 1500/ μ l to 1000 / μ l it is called as mild neutropenia and when this count decrease from 1000 up to 500 we can call it as moderate neutropenia, but when this count decrease less than 500 / μ l it is known as severe neutropenia.[2] Evaluation of patients with neutropenia begins with a thorough history, physical examination, family history, and screening laboratory tests. Patient with neutropenia increases the risk of pyrogenic, life-threatening infections.[3] Disorders of the oral cavity are almost always present by 2 years of age in patients are characterized by erosive, hemorrhagic, and painful gingivitis associated with oral ulcers of the tongue and buccal mucosa. Drug-induced neutropenia is an adverse event resulting in an ANC below 500/ μ L. It is associated with a high rate of infectious complications and has a mortality rate ranging from 2.5%-10%. [4]

There are four types of neutropenia:

1. Congenital: - Congenital neutropenia is present at birth. Severe congenital neutropenia is also called Kostmann syndrome. It causes very low neutrophil levels and in some cases, completes lack of neutrophils. This puts infants and young children at risk for serious infections.
2. Cyclic: - Cyclic neutropenia is present at birth and causes neutrophil counts to vary in a 21-day cycle. A period of neutropenia may last a few days, followed by normal levels for the rest of the cycle. The cycle then begins again.

3. Autoimmune:-With autoimmune neutropenia, your body makes antibodies that fight your neutrophils. These antibodies kill the neutrophils, causing neutropenia. Autoimmune neutropenia is most common in infants and young children, with the average age of diagnosis between 7 and 9 months.

4. Idiopathic:-Idiopathic neutropenia develops any time in life and can affect anyone. The cause is unknown.[2,5]

Ayurvedic system of medicine describes the concept of “Rasayana” means plant which shows rejuvenating activity by strengthening host defenses against different diseases. The word “Rasayana” means house of “Rasa”, which is essential vehicle of life. These Rasayana plants plays important role in modifying immune response. Some plants from rasayana shows Immunomodulatory responses and some plants shows immunosuppressive responses. Now a day’s scientist are interested in Phytoconstituents which helps in the treatment of different types of infectious diseases. Now in the era of covid - 19 pandemic everyone wants to retain or strengthen immunity and avoid this infection. Following plants will help for strengthening immunity. [6]

Acorus calamus L. (Acoraceae)



Acorus calamus commonly known as “Bach or Vacha or Sweet Flag” This plant has creeping rhizomes and sword shaped leaves. Acorus calamus grows in semi-aquatic conditions. It is found throughout India near marshy places, river banks and lakes. The plant showed antibacterial, sedative, spasmolytic, hypocholesterolaemic, insecticide, antiulcer, etc[7]. Ethanolic extract of rhizome of the plant proved to possess anti-cellular and immunomodulatory properties. This extract inhibited proliferation of mitogen and antigen stimulated human peripheral blood mononuclear cells (PBMCs). Further rhizome extract also inhibited growth of several cell lines of mouse and human origin, production of nitric oxide, interleukin-2 (IL-2) and tumor necrosis factor- α (TNF- α).[8]

Boerhaavia diffusa L. (Nyctaginaceae)



It is a common plant in India. Punarnava grows widely in the tropics in both dry and rainy seasons. Ethanolic extract of *B. diffusa* root significantly inhibited the human cytotoxicity. Ethanolic root extract of *B.diffusa* root was studied for its effect on cellular and humoral functions in mice. Oral administration of the fraction (25–100 mg/kg) significantly inhibited SRBC-induced delayed hypersensitivity reactions in mice[7]. Ethanolic extract of *B.diffusa* inhibits PHA-stimulated proliferation of peripheral blood mononuclear cells. it also blocked the activation of DNA binding of nuclear factor-KB and AP-1, two major transcription factors centrally involved in expression of the IL-2 and IL-2R gene, which are necessary for T cell activation and proliferation.[9]

Curcuma longa L. (Zingiberaceae)



Curcuma longa is commonly found in India. The rhizome of *C. longa* shows various medicinal activities such as analgesic, anti-inflammatory, wound healing and immunomodulatory activities. The chief constituent of *C. longa* is curcumin, which is commonly used for immunomodulatory activity.[10] Bone marrow cellularity, alpha-esterase positive cells and macrophage phagocytic activity were enhanced by Curcumin administration. Numerous evidences suggest that curcumin can modulate both the proliferation and the activation of T cells. [11]

Phyllanthus emblica L. (Euphorbiaceae)



Phyllanthus emblica (syn. *Emblica officinalis*) or 'Amla' is a small or medium size tree found in all deciduous forests of India. Amla fruits are largely used in Indian medicine. It is used as an acid, diuretic, refrigerant, laxative, diarrhea and dysentery.[12] It is a popular ingredient of 'Triphala' and 'Chyawanprash'. The anti-inflammatory response of *E. officinalis* extract has

been well established and predicted mechanism for anti-inflammation is based on its function to reduce lymphocyte proliferation and histopathological severity of synovial hyperplasia [13].

***Glycyrrhiza glabra* L. (Fabaceae)**



The root extract of *Glycyrrhiza glabra* is used as a medicine for various diseases including anti-inflammatory as well as anti-allergy⁴⁶. It was investigated that crude polysaccharide fraction of the shoot and hairy root of *G. glabra* induced nitric oxide production by murine peritoneal macrophages in- vitro. In addition, the polysaccharide of *G. glabra* dose-dependently improved immune and antioxidant enzyme activities in mice. Glycyrrhizin and β - glycyrrhetic acid are the major components of *G. glabra* believed to have immunomodulatory properties. [7]

***Momordica charantia* L. (Cucurbitaceae)**



Momordica charantia (bitter melon) is a very popular plant in various systems of traditional medicine for several uses including anti-diabetic, anthelmintic, contraceptive, dysmenorrhea, eczema, anti-malarial, anti-gout, jaundice, leucorrhea, piles, pneumonia, psoriasis, cancer, immunomodulation, etc. The immunomodulatory activity of various components of bitter melon, including peel, pulp, and seed, was assessed by measuring different parameters like IFN- γ , IL-4, etc. Two abortifacient proteins, α and β momorcharin have been isolated from the seeds of the *M. charantia* and it was found that non- cytotoxic concentrations of these proteins significantly inhibited the mitogenic responses of mouse. Momorcharin is also able to decrease the functional capacity of macrophages and delayed- type hypersensitivity response as well as the humoral antibody formation to sheep red blood cells.[14]

Ocimum tenuiflorum L. (Lamiaceae)

Ocimum tenuiflorum (syn. O. sanctum) commonly known as 'Tulsi' has been extensively used in Ayurvedic system of medicine for various ailments and has been shown to possess significant adaptogenic/anti-stress properties.



Different parts of the plant are claimed to be effective in a number of diseases. The fixed oil obtained from O. sanctum seeds is reported to possess significant anti-inflammatory, antipyretic, analgesic and antiarthritic activities. A steam distilled extract of O. sanctum leaves has been shown to enhance anti-sheep red blood cells and IgE antibody titre. Alcoholic extract of O. sanctum showed immunomodulatory activity in both non-stressed as well as stressed animals. In non-stressed animals it was found that O. sanctum seed oil produced a significant increase in anti-SRBC antibody titre and caused a significant inhibition of antigen induced histamine release from the peritoneal mast cells. The oil also produced a significant reduction in foot pad thickness in mice and percentage leucocyte migration inhibition. It also has been reported that hydroalcoholic extract of O. sanctum leaf at 10 mg/kg/day produced radioprotective activity in mice against 11Gy of Co-60 γ -irradiation.[15]

Tinospora cordifolia (Willd.) Miers (Menispermaceae)



Immunomodulatory and antitumor actions of Tinospora cordifolia caused due to activation of tumor-associated macrophages. Intraperitoneal administration of Tinospora cordifolia extract in tumour-bearing mice augments the basic function of macrophages such as phagocytosis but also their antigen presenting ability and secretion of IL-1, TNF- α and other cytokines. The aqueous extract of T. cordifolia boosts phagocytic ability of macrophage in vitro at 5 μ g/ml. At the dose of 10 mg/kg (in vivo) the aqueous and ethanolic extracts of T. cordifolia significantly increased the

antibody production against SRBC in animals when compared to control. The methanolic extract of *T. cordifolia* stem extract showed to increase the total WBC count, bone marrow cellularity ($18.16 \times 10^6/\text{femur}$) and α -esterase positive cells (1423/4000 cells). The extract is also increased humoral immune response, by increasing the plaque-forming cells in the spleen and enhances macrophage activation. *T. cordifolia* extract reduced solid tumour growth and synergistically acted with cyclophosphamide in reducing the animal tumours [16].

Conclusion:-

The modulation of immune response through concept of rasayana in ayurveda is popular, where plants with rejuvenating activity have been described. Several plants have been identified as rasayanas in the Indian Ayurveda and other systems of medicine possessing various immuno-pharmacological properties such as immunostimulant, immunoadjuvant, neurostimulant, antiageing, antirheumatic, anticancer, adaptogenic, antistress, etc. This traditional knowledge with its holistic and systematic approach supported by experimental evidences can serve as an innovative and powerful discovery engine for newer, safer and affordable medicines.

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Kindness at School : Does Age Make A Difference?

Mildred Lobo

Research Scholar, Department of Education
Shri Jagdishprasad Jhabarmal Tibrewala University

Dr. Bharati Chand

Research Guide

Abstract:

Substantial amount of research has focussed on how kindness affects the well-being of students. Research has also been conducted to understand how students perceive kindness. However not much is known about how students differ in exhibiting kindness as they move from Primary to Secondary level. This study aimed at examining the kindness attributes exhibited by primary and secondary level students to understand if there was a difference in the degree of kindness exhibited by them. A collaborative activity was used as the medium for students to interact with one another. 195 students -88 from primary level and 107 from secondary level – from a suburban school in Mumbai participated in this activity. Kindness themes for both groups revolved around helping each other, giving ideas and teaching new skills. Findings of the study do not show a very significant difference in the degree of kindness in Primary and Secondary students. However what is seen is a trend of students starting to lose the tendency to exhibit kindness as they move to secondary level. This study has implications for educators to provide more opportunities for students at secondary level to participate in collaborative activities with an emphasis on students being kind to one another.

Key words: kindness, collaborative activity, primary level, secondary level

Introduction:

Human connections and positive relationships are vital to our mental and physical wellbeing. These connections are strengthened through acts of kindness. All of humankind have an inner capacity for being kind. Christopher Peterson and Martin Seligman's 2004 VIA Inventory of Strengths has categorised kindness under the Humanity factor. A study by Buchanan, K. E., & Bardi, A. (2010) shows the positive correlation between performance of acts of kindness and acts of novelty and increase in life satisfaction. *The English Oxford Living Dictionaries defines Kindness (noun): the quality of being friendly, generous, and considerate; a kind act.*

Kindness needs to be nurtured conscientiously and consistently right from the formative years at home as well as in school where children spend much of their time. Prosocial behaviour subsumes kindness and almost all schools have kindness in some form in their Mission, Vision, Core Values or school Motto. Students are reminded to be kind to each other in all school settings. Research shows a close association between kindness and happiness (Otake, K., Shimai, S., et al (2006) Happy People Become Happier Through Kindness: A Counting Kindness Intervention . Kindness is about social practices and the conditions under which these are more, or less, likely to occur'. Anderson S, Brownlie J. Public policy and the infrastructure of kindness in Scotland. Edinburgh: The University of Edinburgh; 2019.

If we want a society that is kinder, we must make the effort to cultivate kindness and kind acts have the tendency to multiply through a ripple act. Once networks are established altruistic acts will cascade and spread (James Fowler and Nicholas Christakis') Prosocial

actions can mutate and cross behaviour types, and even jump from behaviour to affect (Nook et al., in press). Kindness boosts happiness and wellbeing and there is a positive correlation between the number of kind acts performed and a subsequent increase in happiness. Rowland, L., & Curry, O. S. (2019). A range of kindness activities boost happiness and the more one practices kindness the higher the chances that it becomes a part of your character.

Collaborations work well to serve the purpose of getting students to work with one another. Attributes like resilience, kindness, helping, and negotiating, understanding difference are all developed and honed in groups. Schools have an invaluable opportunity to create opportunities for students to cultivate values of compassion and kindness. Younger students have more concrete ideas of kindness while older ones are more aware and look for the intent behind the action. However all children will learn kindness by getting opportunities to watch kindness in action. A study by John –Tyler Binfet and Holli-Anne Passmore in 2017 found that the conceptualization of kindness became more complex as students matured with eight graders providing detailed definitions of kindness. In his article, Binfet, J. Kindness in Schools: Insights from Students and Teachers investigated how students and teachers defined kindness and provided an insight on pedagogical kindness. There exists a research gap on the understanding of whether the degree of kindness acts begins to change as students progress from primary level to secondary level. This exploratory study aimed to identify if there is a significant difference between kindness attributes in students in primary and secondary years of schooling.

Statement of Aim: To investigate the difference in the degree of kindness exhibited by students of primary level and secondary level during a collaborative activity

Objectives: To examine kindness aspects exhibited by students of primary level during a collaborative activity

To examine kindness aspects exhibited by students of secondary level during a collaborative activity

To compare the findings for students of primary level and secondary level

Research Question: Does a difference exist in the degree of kindness exhibited towards their team members by students at primary level and secondary level when they participate in a collaborative activity?

Scope and Limitation:

This activity only included primary and secondary level students. Results might differ for higher secondary school students or kindergarten students. This activity was not graded which might explain the high score across all parameters. These results are for one activity and the findings might differ if taken over a range of activities. This was a classroom situation and the results might differ from one activity to the other, for example a sports activity which might see higher degree of competition which might not bring out kindness in students . The study could have been more robust with a larger sample size to substantiate the findings of how the attributes of kindness differ across primary and secondary level.

Methodology

A Questionnaire with four questions from a Group Evaluation Questionnaire Erdem, A. (2009) Preservice teachers' attitudes towards cooperative learning in mathematics course and six self-designed questions was used in this study. The 3 Likert scale of Always, Sometimes and

Never was used. A content analysis was carried out of the responses obtained through use of three open ended questions. 195 students from a suburban co-educational school in Mumbai participated in this study. 107 students were from Secondary level and 88 students were from Primary level.

Students participated in an activity which was done in collaboration within groups of five. A topic was assigned to each group and they were given a time frame of 10 days to work as a team and complete the project. Teams presented their work during a class exhibition. After the presentation, students were given the questionnaire to collect feedback on their collaboration. Microsoft Excel program was used to analyse the findings.

Findings

Statement		Always	Sometimes	Never
We worked in harmony	Overall school	69.2 %	26.2 %	4.6%
	Secondary	66.4 %	29 %	4.7 %
	Primary	72.7%	22.7%	4.5%
We found a chance to talk to and interact with our classmates we do not communicate with much except for this study	Overall school	61.0%	34.9%	4.1%
	Secondary	61.7%	35.5%	2.8%
	Primary	60.2%	34.1%	5.7%
We helped each other learn	Overall school	76.9%	20.0%	3.1%
	Secondary	72.9%	24.3%	2.8%
	Primary	81.8%	14.8%	3.4%
We solved the problems that occurred among friends by talking and negotiating	Overall school	72.3%	23.6%	4.1%
	Secondary	72.9%	24.3%	2.8%
	Primary	81.8%	14.8%	3.4%
We applauded each other's good ideas	Overall school	83.1%	14.9%	2.1%
	Secondary	81.3%	17.8%	0.9%
	Primary	85.2%	11.4%	3.4%
We were respectful to one another	Overall school	89.7%	8.7%	1.5%
	Secondary	89.7%	9.3%	1.0%
	Primary	89.8%	8.0%	2.2%
We helped a team member who could not complete a task	Overall school	70.8%	25.1%	4.1%
	Secondary	64.5%	29.9%	5.6%
	Primary	78.4%	19.3%	2.3%
We ignored some else's idea	Overall school	6.2%	11.3%	82.6%
	Secondary	5.6%	10.3%	84.1%
	Primary	6.8%	12.5%	80.7%
We understood if someone turned up late or did not attend the meeting	Overall school	68.7%	30.3%	1.0%
	Secondary	66.4%	32.7%	0.9%
	Primary	71.6%	27.3%	1.1%
We did not let anyone feel left out	Overall school	77.9%	13.8%	8.2%
	Secondary	84.1%	9.3%	6.5%
	Primary	70.5%	19.3%	10.2%

Analysis and Interpretation

The findings show that students across the sections worked in harmony with each other though primary students scored higher in this parameter. Both Primary and Secondary students reported that this activity gave them a chance to interact with classmates they generally would have interacted with less frequently or not at all. Primary students were more helpful towards their team members in terms of helping them learn as well as helping each other complete tasks. Secondary students scored significantly lower than primary on both these parameters of helping their teammates. Both groups handled conflict resolution well and were open to discussing and resolving issues amicably. Both groups reported a high score in accepting others' ideas, however Secondary students reported slightly higher scores on this parameter. Both groups were respectful of ideas from team members but primary students were more appreciative of other people's ideas as compared to secondary students. Students were tolerant of each other and understood if someone could not make it on time with higher tolerance seen among Primary students. Secondary students has a significantly higher score than Primary students when it came to making everyone feel a part of the group.

Primary students are very accommodating and tolerant of each other however they have yet to master the skill of resolving conflict amicably. They work in their own small groups and are reluctant to include people whom they do not consider part of their inner circle. This leads to the tendency to ignore good ideas that come from outside the circle. Secondary students on the other hand are more socially correct and include people in their groups or work with people they have not worked with before. They consider a project as an opportunity to learn and are willing to accept ideas to ensure that the project is a success. They are respectful to each other but reluctant to applaud others ideas and also less ready to help people complete their tasks.

Comparison between Primary and Secondary students show that Primary students scored slightly lower when it came to including everyone in the group and considering everyone's ideas. A slightly lower score was observed on the parameter of interacting with someone they had not interacted with before. However this can be considered on the positive side as it could mean that there is generally more interaction among students at the primary level. In all the other parameters the score of Primary students were higher than Secondary students which implies that primary students tend to be kinder and more accommodating than secondary students.

Themes of Helping revolved around teaching each other new skills and giving ideas to make the project more successful, coordinating with each other, checking on wellbeing of team members, encouraging and motivating each other, helping team members complete tasks and solving problems that arise. Findings show that Primary students (34.63 %) considered giving ideas and coordinating with each other for smooth working as a very important theme of kindness with higher scores as compared to students of Secondary (24.21%) . Teaching new skills and motivating others was highly prized by Secondary students (34.6%) as a way of being kind. A point of observation here is that primary students (26.1 %) did not consider this as a theme of kindness. It is possible that they consider applause, motivation and encouragement as par for the course and do it by default. Checking on wellbeing and listening to each other and solving problems had lower scores for both Primary (11.4%) and Secondary students (5.6%).

Students were asked how they felt being a part of their group and the findings show that the **group bonding** across Primary and Secondary school is high. 88.2 % of Secondary students stating that they felt happy, excited and proud to be a part of the group and also stated that they

felt a sense of bonding with one student reporting that she felt a valued member of the family. Almost the same feelings were reported by 82.4% of the Primary students. There were 10.2% students in Secondary who said that they felt frustrated or unhappy with the major reason of lack of participation from some members. In contrast only 3.7 % of students in Primary reported being unhappy because they felt some students did not involve them in the activity.

Responding to the question “**What could you do differently next time**” Secondary students (17.8%) stressed on more participation needed as compared to 5.7% of Primary students. Both groups reported that better coordination and communication would help the groups. Primary students (7.9%) stated that they needed to be more accommodating of their team members as compared to 2.8% of Secondary students reporting the same. Almost 23.4% of secondary students and 31.8% of primary students reported that the collaborative project was done well and no improvements were necessary. The findings show that students are not really considering a collaborative activity as an opportunity to be kind, rather it is considered as a task to be completed and improved upon. Very few students have reflected on the need to improve the ways in which they can show kindness to one another.

Implications

While the findings across do not show a very significant difference in the degree of kindness in Primary and Secondary Students, there is seen a trend that students start to lose the tendency to exhibit kindness as they move to secondary level. If not addressed early it is highly possible that this tendency will develop further and students will start to look at relationships more competitively and become self-centred, only seeking opportunities for their own benefit. It is imperative that educators foster kindness among students at secondary level through activities where they interact with each other in a collaborative manner or through community service projects. Kind behaviours must be appreciated rather than rewarded. Most importantly, students must be taught social and emotional skills. When students work in collaborative settings, it is the educator's duty to remind them of their responsibility to be kind to one another.

Conclusion:

Kindness is an innate trait and can result in much joy and satisfaction as one begins to exhibit kindness. However if not encouraged or fostered it can soon become an activity only to seek satisfaction or gain rewards- tangible and intangible. As Vicki Zarkzewski so aptly stated in her article Four Ways to Encourage Kindness in Students (2012) *'All it took was a gentle reminder of our human connectedness to prompt kids to reach out and help someone else.'* *The study demonstrates that while significant differences are not seen in the degree of kindness exhibited by Primary and Secondary students, there is a trend that shows that Primary students are slightly more kind than their Secondary counterparts. However as educators provide more opportunities to be kind, students will see the benefits of kindness. They will seek opportunities to be kind to one another and form meaningful connections thus building a cornerstone of success for themselves, society and the world at large.*

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Soft Skills for Successful Entrepreneur

Dr. Mangesh Madhukar Gore

Head, Department of English
Sundarrao More ACS College
Poladpur Dist Raigad (M .S.) 402303 India

Introduction :

Soft skills are a combination of people skills, social skills, communication skills, character or personality traits, attitudes, career attributes, social intelligence and emotional intelligence quotients, among others, that enable people to navigate their environment, work well with others, perform well, and achieve their goals with complementing hard skills.

The Collins English Dictionary defines the term "soft skills" as "desirable qualities for certain forms of employment that do not depend on acquired knowledge: they include common sense, the ability to deal with people, and a positive flexible attitude."

Soft skills and success go hand in hand in today's business environment. All successful entrepreneurs share the same set of skills, besides the technical, hard skills they need soft skills to be successful in the business field. This set of skills is rather based on attitude, the ability to seamlessly interact with others, and to communicate ideas in a simple and efficient fashion.

This set of skills is relevant because it allows entrepreneurs to share ideas easier and to connect at a more personal level with colleagues, partners, and customers. Below is a series of soft skills, with emphasis on communication, that will help to achieve more as a business owner and employee manager.

The present paper attempts

- 1 To throw light on importance of soft skills the business world
- 2 To discuss various aspects of soft skills required in business field
- 3 To explain various kinds of soft skills
- 4 To throw light on objectives and functions of soft skills required for entrepreneurs to be successful
- 5 To highlight various tips and measures required for developing soft skills

Some important aspects of soft skills are as follows

Communication

For successful entrepreneurs, being able to communicate their ideas and messages in an effective and desirable fashion is key to spreading their knowledge. Communication also helps them develop fruitful relationships with their co-workers, employees, and collaborators. Good communication skills have to be spread across multiple media channels. People who can understand what you try to communicate are more likely to catch your ideas; to be receptive to those. Ensure that you develop sturdy abilities in the following spheres.

- Listening;
- Written communication;
- Presentation skills;
- Spoken communication skills.

Emotion control

Productive business owners and Entrepreneurs seem to all have good emotion control. You will be under a lot of stress as an entrepreneur. You can't let your actions guided by impulses and stress. Being in control of your emotions is one of the most important soft skill you can master. According to psychologists, there is a high correlation between emotion regulation and our ability to remain productive under pressure. Some of the most common negative emotions people bring to work are stress, anger, and anxiety. Although these are normal feelings, they can put a strain on your relationships with your co-workers and collaborators.

The key to being in control of your emotions is learning what triggers your stress and negative emotions. This will prevent you from spiralling into an endless chain of emotional reactions. Try to learn to identify negative emotions in your employees and teams, as well. This will allow you to adapt your reactions and your approaches more effectively. It will also put you in control of your teams.

For example, real estate is a challenging and demanding field. Being able to advertise and sell different types of properties demands good knowledge of human nature and high levels of self-control. Managing luxury properties for sale demands even deeper knowledge of how to deal with emotions and regulate your deepest anxieties.

Take an example of the professionals in this field, and try to analyse their behaviour when faced with challenges. It will change your perspective completely.

Problem-solving skills

Successful entrepreneurs have the ability to get in the problem-solving mode and persist until the issue is solved. They are unlikely to give up and pass the responsibility to others when unfortunate scenarios happen.

The key to improving your problem-solving skills is learning how to deal with inevitable problems and challenges. Try to develop your explanatory style. This will help you understand why things happen the way they happen. People generally have issues when faced with work-related challenges. They become unfocused and see their issues as long-term, unsolvable ones. Resilient managers, however, tend to see the business challenges they encounter as short-term issues.

You have a purpose in all your actions

Acting with a purpose is a core skill for productive entrepreneurs. Managers who succeed to acquire this skill feel more connected with their mission and teams. They also inspire their teams to act similarly. Although many people are born with this skill, it can also be taught. You can learn how to reframe your thoughts and action patterns.

Try to develop a mindset that forces you to think of the larger picture; the biggest goal of your establishment and business activity. Try to think of your business as a legacy you leave behind, as an establishment that can bring a change in society and culture.

In dynamic business environments, employees who work in establishments where they are reminded of the bigger picture, tend to be more productive and have a more positive attitude in the workplace. As a result, they tend to see their role in the business and society as a determinant one, being mainly inspired by their employers and managers.

Teamwork

If you want to shine as an entrepreneur, you want to learn how to work and interact with others effectively. Learn how to utilize the human capital in your company and how to distribute

different tasks to different employees. Take into account their backgrounds and skills. Learn how to actively listen to your employees. You need to learn how to inspire people in the workplace, and how to lead through example. Teach your employees how to work together and how to function as a team. Of course, you need to also learn how to work with others effectively, as a team.

There are countless components that go into building a successful company, but soft skills act as the fundamental building blocks of a functioning business. Hard skills are considered to be job-specific, whereas soft skills are interpersonal skills, like listening and communication.

Nearly 93% of employers said that soft skills are an “essential” or “very important” factor in hiring decisions. With the right blend of hard and soft skills, an entrepreneur is capable of great things.

Important soft skills and their importance for successful entrepreneur

Here are five soft skills that can help entrepreneurs scale their growth and lead successful ventures:

1. Confidence

A successful company starts from individual confidence. In order to motivate and inspire others, an entrepreneur must find reassurance in themselves. Other businesses and consumers will believe in your company if you consistently believe in yourself.

Being confident also means becoming comfortable with being uncomfortable— taking risks will expand your business and place you above competitors. As an entrepreneur, and leader, it's crucial that you not only possess confidence, but exhibit it throughout every step of your business ventures.

2. Self-Awareness

It is vital that an entrepreneur have a clear insight into their personality, especially their strengths, weaknesses, thoughts, and emotions.

When an entrepreneur is self-aware, it can lead them to beneficial partnerships and agreements. Without good self-awareness, leaders become easily persuaded and spineless. Self-awareness also includes control. Becoming overly emotional, for example, can lead to detrimental impulsive decision making.

“Self awareness is the ability to take an honest look at your life without any attachment to it being right or wrong, good or bad.” – Debbie Ford

3. Collaboration

From the day we begin talking, the ability to work well with others is pivotal to any project. As an entrepreneur, it is important to recognize and understand your own responsibilities. To do this, you must identify your business culture and have tools on hand to manage mutually dependent relationships.

Active listening inspires collaboration within teams and creates learning opportunities. Without open collaboration or sharing and discussing information, the success of your business is limited.

4. Time Management

Time is the greatest equalizer. No matter who you are or what you do, we all have the exact same amount of time in the day. Successful management of that time separates the great entrepreneurs from the bad ones.

Entrepreneurs have many responsibilities; they are often jumping between tasks, hopping on calls, and attending events. They also tend to make every decision within the business.

It is crucial for business owners to find an organization system that works for their company and their goals. Creating a long term road map of company ambitions is an excellent way to distinguish high versus low priority initiatives. Entrepreneurs should create prioritization systems that employees can follow each month, ensuring business targets are met.

“Once you have mastered time, you will understand how true it is that most people overestimate what they can accomplish in a year – and underestimate what they can achieve in a decade!” – Tony Robbins

5. Resilience

Throughout your entrepreneurial journey, unexpected hurdles and setbacks are inevitable. The process of starting a business will not be perfect. What matters most is how you progress when the outlook seems bleak. Your ability to stay tough and weather the storm speaks volumes to your leadership— and will lead to a huge payout at the end of the day.

Maintaining entrepreneurial resilience throughout rocky times will empower your employees while simultaneously building your credibility. Resilience will also inform potential clients and customers that you are willing to fight through thick and thin.

Conclusion

Soft skills are the backbone of every successful entrepreneur. While hard skills like financing and marketing are crucial to conducting business, soft skills provide the essential groundwork. Developing these soft skills will come with time, mindfulness, and an eagerness to grow. Take the initiative to prioritize these skills in yourself. Once you’ve done that, you can then cultivate those same qualities in your business.

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Status of Library Automation of Kendriya Vidyalaya Bilaspur : A Study

Dr. Rajesh Sharma

Library Teacher,

KV Bilaspur.

Abstract:

The present research paper highlights the status of Library automation of Kendriya Vidyalaya Bilaspur. The paper emphasized the automation of various services of the library along with utilities of Library 2.0 of Library Media Centre of vidyalaya. The present study was conducted using class room interaction and telephonic method. The instructional and interview pattern was designed for the purpose of data collection and the same were conducted personally on randomly basis to the teachers of Vidyalaya. A total 38 were interacted and telephonically contacted; out of which 36 were answered back 94 %). On the basis of mentioned methodology, the data has been analyzed and tabulated. All the results have been presented in the form of tables. For the data analysis percentage technique has been adopted. Purpose of Internet utility has been explained with the help of data analysis. The purpose of Library Automation along with Results and Findings have also been explained.

Key Words: Library Media Centre, Library Automation, Kendriya Vidyalaya Bilaspur, Library Sources, Library Specialized Services, Library 2.0, e-granthalaya library software, Wakelet Profile, Library on Mobile

Introduction:

Encyclopedia of Library and Information Sciences defines *Library Automation* as "The use of automatic and semi-automatic data processing machines to perform such traditional library activities as acquisitions, cataloging, and circulation".

Library automation consists of the input and output devices used to automate library and its services.

The following services are usually automated using library software in a school set up:

- Library Circulation – Issue and Return of Books and Magazines
- Creation and Utilization of Library 2.0 using Internet
- Online Public Access Catalogue using library software
- Bar coding of Books
- Acquisition
- Library cataloguing
- Serial Control
- Specialized services of Library and Reviews of Books and Magazines
- Associated administrative functions of library

Purpose Of Library Automation

Automation in libraries further strengthen the efficiency and accuracy of the whole library system.

The core purposes are listed below:

- It makes library services effective, accurate, user friendly
- It saves very valuable time of its readers
- It provides fast access to desired documents
- It satisfies the demand of its users pinpointedly, comprehensively
- It helps to create and generate new knowledge

- It strengthens all associated administrative functions of library
- It saves man power and avoids duplication of work
- It supports to create and utilize the library 2.0 such as Web blogs, Wakelet profile, Library on Mobile.

Objectives of the School Library – (Source KVS Library Policy)

- Be the knowledge hub of the school and disseminate knowledge as widely as possible.
- Provide a curriculum-based, flexibly scheduled, open access learning environment that accommodates all learners.
- Facilitate creation of new knowledge.
- Facilitate optimal use of knowledge by all staff and students.
- Encourage and foster reading habit among staff and students.
- Effectively participate in the teaching-learning programmes of the school.
- To provide intellectual access to information through learning activities that are integrated into the curriculum and that help all students achieve information literacy

Objective of the study:

The present work has been undertaken to identify the status of Library Automation of KV Bilaspur and its effective utilization for the benefits of users.

The major objectives of the present work are as follows:

1. To find out the status of Library Automation of Kendriya Vidyalaya Bilaspur
2. To find out the outcome of automation
3. To find out the enhancement of Quality Results through the application of automation
4. To find out the present status of creation of Library 2.0
5. To find out the status of optimum utilization of automation devices
6. To find out the satisfaction level and promotion of reading habits among students through this application.

Hypothesis of the study:

The major hypotheses formed with the help of review of literature are as follows:

1. The majority of the library users are using existing automation facilities of their school library
2. There is significant relationship between the Teachers and their willingness to attend library due to this application
3. Great impact of Library 2.0 tools
4. Impact and significant relationship of library automation on enhancement of quality results and generation of new knowledge
5. Library Automation enable students to promote their reading habits and save their time

Research Methodology:

The class room direct interactions and telephonic interview have been adopted to collect the data for the present work “Status of Library automation of KV Bilaspur: A Study”.

This study involves 1 LMC Head, 36 Teachers from KV Bilaspur. This study involves proper adoption of research design, tools, test, and collection of sufficient samples by opting appropriate sampling techniques, careful tabulation of data and use of proper data analysis techniques.

Survey & Sample Population

The research work covered 1 LMC Head and 36 teachers of Kendriya Vidyalaya Bilaspur as per the details given below.

Respondents	Interactions and Interview	Interactions and replied received	Questionnaire received (%)
1. Librarians	01	01	100
2. Teachers	38	36	94.7

Table 1: Interaction and Interview statistics of respondents

Data Analysis and Interpretation

Year of establishment and sector wise distribution of KV Bilaspur

Sl. No.	Name of KV	Establishment Year	Sector	Library Automation(Yes/No)
01	KV Bilaspur	1986	Civil	Yes

Table 2: Year of establishment and sector wise distribution of Kendriya Vidyalaya Bilaspur

3. Status of Library Automation of KV Bilaspur

Respondents	Automation using e-granthalaya		Status of Bar Coding of Books of Library	
	(YES)	(NO)	(YES)	(NO)
LMC Head	1 (100%)	NIL	1 (100%)	NIL
Teachers	36 (100%)	NIL	36 (100%)	NIL

Table 3: It clearly shows that library of KV Bilaspur fully automated using the latest LAN Version of e-granthalaya 4.0 and fully barcoded.

4. A. Collection Development – (i) Books

Collection Types	>10000	<10000 and = 5000	<5000
Books, Magazines	100%	NIL	02

4.B. Collection Development –Use of Non Print Media

Collection Types	Available and effectively using	Available but not in use	To Some extent	Not available
Non-Print Media	100%	Nil	Nil	Nil

4.C. Circulation statistics (Number of books/Magazines issued day wise per period)

Respondent	2 books per Library Period	1 Books per Library Period	Less than 1	Total Response
Librarian	97%	3%	Nil	Nil

Table 4 indicates Circulation statistics (Number of books/Magazines issued day wise per period as per KVS existing norms of library periods).

5. Effective use of Library Automation Services by the Librarians and Teachers to enhance quality results

Library Automation Services	Librarian		Teachers	
	Yes	No	Yes	No
Circulation	1	0	34	02
Reference	1	0	36	00

Books and Magazine Reviews	1	0	36	00
Referral	1	0	28	08
CAS	1	0	30	06
SDI	1	0	32	04
Online access to desired materials - Net based Services	1	0	36	00
Library Orientation	1	0	36	00
Newspaper Clipping	1	0	36	00
Abstracting and Indexing	1	0	36	00

Table 5: Library Automation Services by the Librarians and Teachers. It shows the acceptance of hypothesis majority of the library users are using existing automation facilities of their school library. This clearly indicates that more than 90% of users are accessing automation-based services pinpointedly and comprehensively to generate quality and new knowledge.

6 Purpose of providing Internet facility- Teacher's response

Sl. No.	Purpose	Yes	No
01	To access and retrieve additional subject materials	36	0
02	To access sample papers	36	0
03	To access split up of syllabus and CBSE Curriculum	36	0
04	To accomplish Project and assignments	36	0
05	For online quizzing	36	0
06	To access Library catalogue	36	0

Table 6: Purpose of providing Internet facility. The responses and data analysis reveals that Internet facilities are being accessed for retrieving additional subject materials, sample papers, split up of syllabus-curriculum, project and assignments along with participation in the online quizzing and to access library catalogue.

7. Existence of Library2.0 utilities– wakelet profile, library on mobile, web blogs

Sl. No.	Existence of Library Software	Yes (%)	No (%)
01	Wakelet profile	36	00
02	Library on mobile	36	00
03	Web blogs	36	00

Table 7: Existence of Library2.0 utilities– wakelet profile, library on mobile, web blogs. The 100% respondents agreed on accessibility of Library 2.0 application of library such as Wakelet profile, Library on mobile and Web blogs for quick and reliable access of recent happenings and study materials for quality results. This approves the hypothesis of impact and significant relationship of library automation on enhancement of quality results and generation of new knowledge

8 Library Orientation towards Library Automation Services to users

Interpersonal Relationship	Interpersonal Relationship Measures taken (Yes in %)	Interpersonal Relationship Measures taken (No in %)
Librarian and Teacher's response	100%	00

Table 8: Library Orientation towards Library Automation Services to users. All the respondents are agreed on users are being provided the library orientation services to know the availability of automation-based services of library.

9. Library automation activities planned to create new knowledge and generation of thought, source of information and place for learning

Library activities for creating New Knowledge	(Yes in %)	(No in %)
Librarian and Teacher's response	100%	00

Table 9: Library automation activities planned to create new knowledge and generation of thought, source of information and place for learning. It clearly shows the Impact and significant relationship of library automation on enhancement of quality results and generation of new knowledge.

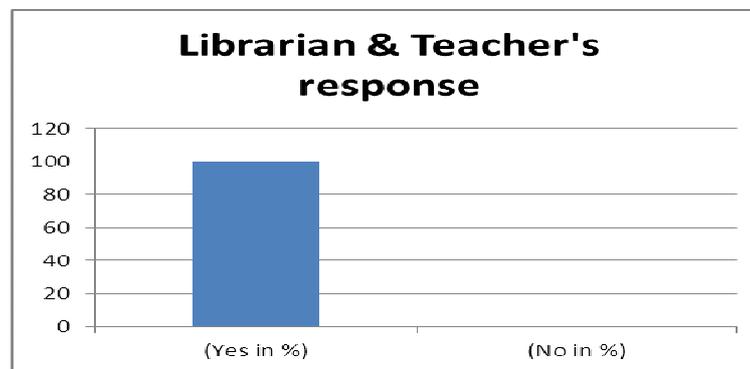


Fig. Generation of New Knowledge by the automation of services of library

10. Enhancement of Quality using Library Automation Services

Response	Librarian	Teachers
Outstanding	01	31
Excellent	NIL	04
Very Good	NIL	01
Average	NIL	NIL
Poor	NIL	NIL

Table 10: Enhancement of Quality using Library Automation Services. The data analysis indicates the outstanding and excellent way to produce quality through these automation-based library services.

Ranking of Library 2.0 activities by the respondents

(E = Excellent, VG = Very Good, G = Good, AV= Average)

Sl. No.	Library 2.0 Services	KV Bilaspur Teacher's Response
01	Library web blogs	E
02	e-newsletter	VG
03	Internet based services	E
04	Specialized Services	E

Table 11: reveals that majority of respondents are agreed and providing the library 2.0 based services subsequently users are accessing desired demand of information very quickly, pin pointedly, comprehensively enhancing the quality in many aspects using library automation.

Findings:

Data analysis reveals that the Library Media Centre of KV Bilaspur has been computerized using e-granthalaya library software (Ver 4.0) of NIC, New Delhi. The LMC of vidyalaya also bar coded their collections for quick retrieval enabling saving very valuable time of students and teachers. Library 2.0 has been the recent prominent features. The LMC is also executing the specialized services such as CAS, SDI, Bibliographic searches besides regular routine services. The automation helps to further enhance the quality education and quality results of students. The automation-based efforts will also help to avoid unnecessary duplication work. The user orientation programs have also been undertaken to guide students and teachers to effective access of these services. Data analysis indicated the library e-blogs and e-newsletter have also been developed to promote reading habits and to enhance quality results. The majority of the library users are using existing automation facilities of their school library. Data analysis revealed that there is significant relationship between the teachers and their willingness to attend library due to this application along with great impact of Library 2.0 tools on enhancement of quality education and quality results. It also helped to create new knowledge.

Suggestions:

The networking facility may further be strengthened. The networking of the library will enable the services like resource sharing and can save time and money. Through networking duplication of work can be avoided and the release of e-newsletter may effectively reflect the recent happening of the Vidyalaya qualitatively.

Conclusion:

The automation of library services is essential as it satisfy the user demands and retrieve desired information promptly, pin pointedly, comprehensively and accurately. Their proper and timely execution yield qualities. The Library Media Centre of vidyalaya is covering a wide range of automation-based activities and acting as a central core entity of vidyalaya. LMC is aiming to serve all potential users within the school community and meet the particular needs of different target groups. Hence, the automation of library media centre of Kendriya Vidyalaya Bilaspur certainly enhancing the quality aspects of education and as well as quality results of students.

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Critical Evaluation of Online Education System in Indian Perspectives

Dr. Ashwani Kumar

BKD College, Jhansi

Abstract:

COVID-19 has had a profound impact on the delivery of global education. Due to the epidemic, millions of students were impacted by the closure of educational institutions, which culminated in the greatest online education movement in history. Online education has emerged as a powerful contender for the next new education technology. Technology is touching every aspect of society and changing it dramatically. But there is one very important and indispensable part of the society that has also been tapped by new innovations and discoveries and that is the concept online education. It is an effective tool for development of educational sector in India.

Key words: Education, educational development, online learning, online training, interactive, live

India is one of the nations that is developing at an exponential rate in terms of technology. With the population of more than 1.3 billion, the availability of high-speed internet and smartphones, India has the most number of technologically driven persons. The rise of the internet has changed the way of life in India. People like to do everything online, they shop online, do business online, make friends online, learn online etc. While eCommerce being the most significant online industry, Online education and learning stand right next to it. With the ever-increasing information available on the internet and the countless number of online courses many people in India prefer to learn online.

Our Honorable Prime Minister has envisioned transforming our nation and creating opportunities for all citizens by harnessing digital technologies Through digital India initiative by seeing the potential and immense popularity of digital technology in India. The initiative comprises of various projects in various areas relating to health, education, labour, employment etc. As a part of Digital India project, many colleges and universities offer online correspondence courses. Now let's go through some of the interesting facts about online education in India.

With the emergence and spread of COVID-19 in India, online education has trickled down to the most basic level—schools and colleges! When asked about their experience with online teaching, a student from a college in Bengaluru said, "The online option is a need in this pandemic situation. It has brought education to us without us going anywhere, and it is more flexible". Probably, students are finding it a welcome change from strict schedules and long-distance commutes to attend classes. For some others, who find learning in large classes intimidating, this may be a less stressful option. Many teachers are making the best of this situation by exploring new methods of teaching and assessment.

Using the internet for entertainment is common, but for online lessons is a big challenge. Teachers may not be well-versed with creating digital content, and conveying it effectively online. A sudden expectation from them to upgrade, and from students to adapt, is unfair.

Body language and eye contact, which are important cues for the teacher, are difficult to perceive in an online class. "I do not receive continual feedback in the form of students' reactions during online sessions, which reduces the effectiveness of teaching", says a college teacher in suburban Mumbai. How many students have paid attention in a class? Of those, how many understood the lesson? Is the teaching pace alright? Are some students getting left behind?

These questions arise even in traditional classrooms, but they are harder to address in online classes. A parent of an 8-year-old attending a private school in Gurgaon says, “There shouldn’t be online classes for such young kids. Their concentration span is small and they do not pay attention after a while.” The 8-year-old added, “I hate them (online classes)!”

Even college students seem to value the in-class physical learning experience much more than a virtual one. Education is not just about subject knowledge but also about developing social skills and sportsmanship among the students, which is built over years. Relying solely on online education may hinder the holistic development of children, and many may underperform later in their professional and personal lives.

While India enjoys a wide geographic and cultural diversity, it also suffers from a huge socio-economic divide. Only a small part of the Indian population has access to online education right now. Interrupted power supply, weak or non-existent internet connectivity, and unaffordability to buy necessary devices are major concerns. “In a Class of 40 students, after two months of online classes, around 20 students regularly attend class with whatever device and connection they have. Around 5–8 students are completely absent till date and rest are fluctuating”, says a school teacher in Ratnagiri in Maharashtra. A teacher in a government-aided school from the small town of Chamba in Himachal Pradesh says, “It is a frustrating experience to engage students of lower classes in online mode. There are network issues on both teachers’ and students’ ends”.

To deal with internet connectivity and device availability issues, ‘classes’ in many places are happening via sharing of videos by teachers over WhatsApp or YouTube, so that students can watch them at their convenience. This too, however, comes with difficulties in understanding the lessons and promotes rote learning. The same is true of pre-recorded sessions aired on the television (e.g., Swayam Prabha DTH channels) and radio (audio lessons, through All India Radio), although they do cater to a wider student population that cannot avail live online classes.

In a recent survey of 733 students studying in government schools in Bihar, only 28% of the girls had smartphones in their homes, in contrast to 36% of the boys. These smartphones almost always belonged to male adults, often being lesser accessible to girls than boys, and half of these families could not afford internet data packages.

Students with disabilities are among the most dependent on in-person education and hence least likely to benefit from distance learning. A survey by Swabhiman (an NGO working mainly in Odisha), in association with the National Centre for Promotion of Employment for Disabled People, indicated that 73% of the students with disabilities had concerns regarding the availability of study material in appropriate formats. Also, 79% of their teachers were apprehensive about teaching effectively without use of touch to students with learning disorders, autism and low vision. The lack of effective education may further aggravate the high dropout rates of these children from schools (nearly 50% pre-COVID) in developing countries.

To make online education more effective, accessible and safer, various online resources (links listed below), training programs and schemes have been developed by the Government of India for students, teachers and educational institutions. The teaching community has come together to form a nationwide informal and voluntary network of teachers, called the Discussion Forum of Online Teaching (DFOT), to discuss different aspects of online teaching, and create repositories of essential resources.

Cutting-edge technologies like artificial intelligence (AI) could open new possibilities for innovative and personalized approaches catering to different learning abilities. IIT Kharagpur has collaborated with Amazon Web Services to develop the National AI Resource Platform (NAIRP), the future possibilities of which include monitoring eye movement, motion and other parameters for better teaching and learning. Google has also indicated future support in AI based education in India. Online education opens up a lot of possibilities for students and teachers alike. Yet, it may also widen the inequalities in the socio-economic fabric of India. All our policies and interventions with regard to online education should strive to be inclusive.

Since online education only requires a laptop or a smartphone with an internet connection, students can learn anywhere at any time. This flexibility helps working professionals to pursue new courses without giving up their jobs. They can learn at weekends or in their free time. All the course materials are readily available at student's fingertip. Online education is much more cost effective than doing a regular on-campus degree. It helps students who cannot afford a regular college degree to accomplish their dream without spending a fortune on college education. Since you study at your own time, it helps to save time as well.

Everyone learns at a different pace. In a classroom where everyone taught together, many students find it difficult to follow the lessons. This is a serious disadvantage of traditional education. Online education solves this issue. In online education all the course materials are provided beforehand, students learn it by taking their own time. Students can clarify their doubts by live chats or forums as well. Online degrees are accepted by many companies and employers in India as long as it is accredited and approved by Distance Education Council (DEC) of India. Many of them are encouraging their employees for getting online education as well.

Students can easily lose track of their studies in online education since there are no face-to-face lectures and classmates to remind you about assignments. Until and unless you keep yourself motivated it takes a long time to complete your course or abandon your entire course. There are many websites that offer online courses without the accreditation of any educational authority or in the name of fake authorities. Such courses will not help you to get any job. So it is very important to choose an accredited online/distance program before you spend money on it. You cannot do an engineering course or any other course that requires labs or hands-on workshops online. Also in courses like MBA you miss the chances of professional networking, overseas experience etc. Which is considered an important part of the course.

With the lockdown situation as a result of COVID-19 academic activities of every educational institution come to a halt and the adverse effect of the same is widely visible among the learners. The online teaching in India has got a long history with broadcasting space provided by the All India Radio and the Doordarshan for telecasting recorded educational programmes for not only higher education but also for school-going children. Though many educational institutions including UGC, IGNOU and NCERT using the services provided by All India Radio and Doordarshan still there was a need for interaction from the learners to be fulfilled since all these broadcasting was in recorded form.

In 1994 there was a paradigm shift as the ISROU provided the teleconferencing facility at IGNOU headquarter in New Delhi for the first time. It was a one-way video and two-way audio communication through phone line providing scope of live interaction for the learners. The teleconferencing facility was a booster for a large number of online courses like management studies, computer science and especially for teachers training in India. For several years a large

number of educational institutions and various government and private organisations utilizing the service of teleconferencing provided by ISROU at IGNOU headquarter. In the year 2000, the teleconferencing got the recognition as an official education channel under the Gyandarshan platform. Along with other channels of Gyandarshan it was then made available in the DTH as GD-interactive channel.

Today in 2020 both the teachers and learners must be fortunate to have so many apps developed for two way communication even in mobile. Now the challenge is not with technology but with ideas that how to make the online teaching more useful. I have been associated with online teaching for more than 25 years as a service provider and during this period I have observed a few things which could help the online teaching more useful.

In the limited time frame of online teaching where a teacher has to address a large number of learners and it may not be possible to respond to the queries of all of them and many of the learners may not get the chance to ask their queries. Hence online teaching must supported with some other mode of communication such as Email, Wats App, etc. through which learners can send their queries prior and at the same time the teacher must be prepared to answer those before going to the online classroom. Many times the teacher may find similarities in the queries received from the learners and get an idea about the common difficulties of the learners. In such a situation separate session needs to be organized to address such issues.

Finally, it must be taken for granted that the future mode of teaching will further develop with more and more scope with online learning. But the most important thing we should keep in mind is that the usefulness of online teaching always depends on live interaction rather than silent participation.

Conclusion :

Every dark cloud has a silver lining. Online education used to be an outlier until the Covid-19 pandemic placed it at centre stage. With this, the countdown to the withering away of the traditional brick and mortar education system has begun. All now depends on how bold and imaginative the world can be and to what extent it is willing to take online learning forward.

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Analytical Study of Karnad's Boiled Beans on Toast in the Light of Maslow's Theory of Hierarchy of Needs

Dr. Amol Ukhardu Bavaskar

Assistant Professor,

Shankar Narayan College of Arts and Commerce, Bhayandar-East,

Dist – Thane, Maharashtra 401105.

Email id: amolbvskr@gmail.com

Abstract:

Girish Karnad explores modern Indian society in his famous play Boiled Beans on Toast. He presents the drastic transformations that are being witnessed in Indian society. These changes have affected the framework of our society in and out. Significant changes can be noticed in beliefs and moral values of mass basically after the introduction and implementation of Liberalisation, Privatisation and Globalisation on a mass level. These concepts have changed the life style and thinking process of the society at large. People have changed their priorities of needs either by themselves or they are forced to do so as they are helpless. Every human being tries to fulfil his needs as per the need and demand of the situation. Basic human behaviour gets motivated due to the emergence of these needs from time to time. A very renowned American Psychologist Abraham Maslow (1908-1970) has put up his theory of Hierarchy of Needs which defines human behaviour as per the rise of needs. The present paper tries to explore and study the behaviour of the characters in the play through Maslow's theory of Hierarchy of Needs.

Key Words: Boiled Beans on Toast, Abraham Maslow, Theory of Hierarchy of Needs, Human Behaviour, Motivation, Society, Human Relations

Girish Karnad's play Boiled Beans on Toast is different from his previous plays as Karnad has not taken refuge in his favourite technique of using myths, history or folklore as a crude material for the play. On the other hand, the concerned play depicts the picture of modern Indian society in the light of liberalisation, privatisation and globalisation. The play has a simple plot and at the same time it deals with complications in human relations which is one of the evils of modernisation. Every character in the play is very much special as they have their own individual identity and behaviour pattern. Famous psychologist Abraham Maslow has vividly illustrated the rapport between human needs and consequent behaviour. It is very much interesting and exciting as well to study the behaviour pattern of characters in the concerned play in the light of Maslow's theory of Hierarchy of Needs.

Human being is a social and intellectual animal with some needs to be fulfilled. These needs include physiological needs, safety and security needs, love and social belonging needs, esteem needs and self-actualisation needs. He strives to fulfil them as per the demand of situation and his capabilities. These needs act as the motivational factor in his life. His behaviour gets affected as per the intensity of the needs.

The play focuses and highlights the mingled lives of major characters who share a common place called city of Bangaluru. The city as a main protagonist witnesses the changing lives and life styles of the other characters in the play. The characters in the play are very much divergent in nature as they belong to different social as well as geographical locations. And still they are connected with one another by some mystical thread. Every character is haunted with

some or other need which accelerates his/her behaviour in a certain direction. The physiological needs are at the base of the pyramid of the hierarchy proposed by Maslow. They must be fulfilled first and then only a human being may think of other higher needs. These needs include basic needs of food, shelter and sensory satisfaction. The behaviour pattern of the characters like Muttu and her mother is motivated by these needs. They have left their village just to earn their livelihood. It is not their choice to leave the village, family and relatives behind and accept and adapt the urban hectic life style. They always try to cut their expenses in all possible ways. That's the reason that they decide to celebrate the ritual of coming-of-age of Muttu's daughter in the city avoiding the invitation and gathering of relatives in the village as it would cost unaffordable for them. Here managing the expenditure that is managing physiological need is more intense and urgent than the need of association with the society in the form of relatives in the village. Muttu expresses her concern to his brother Shankara as she says,
MUTTU: Husband said Karimangala would mean expense.

The remotest relatives'll turn up. In Bengaluru, we can have a smaller affair. More compact. (7) Muttu earns her livelihood by serving as Maid to Mrs. Anjana Padabidri. She doesn't have any type of security of future. She strives to earn bread and butter as she has the responsibility of her mother, husband and a daughter. Her brother Shankara insists her to celebrate the event at their own native by inviting the relatives. For her the relatives that would attend the ceremony would have become the matter of concern rather than that of celebration. Her decision is influenced by her physiological needs which are she is struggling for. She can't think at this level of getting associated with the society.

Muttu's mother suffered worse when she arrived in the city of Bengaluru after the death of her husband. She was not able to fulfil basic needs in the village. It forced her to move in the city with her daughter Muttu where she made her livelihood by a lot of hard work. She explains it as,

MOTHER: We lived like beggars, like roofless orphans, in that monster city. And when I found a job 'twas as a seamstress, chained to that sewing machine eight hours a day. Often even ten hours. What happiness did I ever see? It was all for you children –
Her words bring her struggle for physiological needs in focus.

Another character, Prabhakar is somehow on the next level of hierarchy. He is a well-educated youth and striving to get a better job in the city of Bengaluru. He represents rural youth who aspires to get better job opportunities in cities and leave their rural places. Prabhakar struggles for better life style of urban society. He visits Mr. Padabidri's residence to get some employment where he meets Dolly. He doesn't know Dolly at all. He has met her there very first time and still believes her words. He shows readiness to follow her instructions in all ways. His behaviour is influenced by the need of better employment which means better life style in the urban society. He fails to identify hypocritic nature of Dolly and finds himself in a huge problem afterwards.

Dolly is a sophisticated lady who is a wife of a Brigadier. She is well settled and hardly any struggle is there in her life. She enjoys her life in her own style and way. Her behaviour is influenced by higher level of needs as her physiological needs are very well fulfilled. She urges for respect from other and wishes to establish herself as someone special in the society. She boasts of her false social status. She boasts saying to Mr. Prabhakar as "Azim Premji is a close friend. I was in college with his wife Yasmeen. At Xavier's." (28). She convinces Mr. Prabhakar

that she has association with businessmen and she can provide him a job opportunity in Singapore. Her false behaviour is influenced by the need of social recognition. She goes on asserting as she says,

DOLLY: Let me explain. The other day my husband and I had dinner with Azim and Yasmeen. And he was saying they

were looking for a good regional manger for their Singapore office. But they want to fill it without any fanfare. They've their reasons for not advertising the post. (28)

Dolly's behaviour confirms that she strives for some social recognition. She tries to establish herself in the society as one of the influential personalities.

One more major character rather complicated one is Vimala. She is the cook and chief servant in Padabidri family. We find her involved in many mischievous matters. She strives to fulfil her needs at various levels at once unlike other characters in the play. On one hand, she is very poor that she doesn't have proper residence and on the other she behaves like an owner in Padabidri's house. Muttu defines her as "Vimala, the cook. She's been here for ever and she thinks she's the mistress of the house." (6). She tries to be the boss and dictates Muttu. She is also involved in trivial crimes to earn money. She does many jobs at the same time.

The character of Anjana Padabidri in the play strives to fulfil the affiliation needs. Every human being aspires to seek love and to be loved, accepted by others. He tries to mould his behaviour in such a way that he will be accepted by others. Love has a seminal place and significant role to play in our life. Life without love is unworthy to be lived. Anjana has married in a rich family. Her husband is a rich business and always on business tours. She doesn't have any material scarcity in her life. But a close observation of her character brings the fact into light that she desires for love in her life. She also like singing but her husband is almost absent in her life to appreciate her love and affection as a spouse and her singing as a true audience. She develops the feeling of negligence on the part her husband and starts singing loudly. It brings her close to a young Bengali neighbour who is also a singer. But very soon he quits her friendship saying, "I don't wish to be trapped into a relationship with a married woman." (78). Anjana is found broken in and out and tries to end her life. She loses her singing voice due to her attempt of suicide by consuming sleeping pills.

To conclude, the behaviour of every character in the play is influenced by one or other type of need as described by Maslow in his theory of Hierarchy of needs. The play ends on the positive note as Anajana gets her singing voice back and she sings for the patients in the hospice. It gives her happiness of social esteem and self-actualisation. Her son Kunaal also gets true love in his life. Dolly affirms that she would help other people indeed henceforth in her life. Like these characters, everyone should try to fulfil the needs from lower to higher level in a right and apt way.

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Research Output of ALIS, DESIDOC and IRJLIS (2014-2018) : A Comparative Bibliometric Study

Dr. Supriya A. Bejalwar

Librarian,

Prof Ram Meghe College of Engineering & Management,

Badnera-Amravati.

Abstract:

This article aims at quantitatively analyzing academic quality of three journals from Library and Information Science field. Efforts are made to compare yearwise distribution of research papers, authorship pattern, length of research papers and most prolific institution and country producing research papers published in Annals of library and information studies(ALIS), DESIDOC Journal of library and information technology(DJLIT) and International Research Journal of Library and Information Science (IRJLIS) published between 2014 and 2018. In this study total 689 research papers are analysed and compared. Highest contribution of research papers are found in DJLIT with 269 contributions. While during the period of study IRJLIS(35) has highest foreign authors as compared to DJLIT(23) & ALIS(16). Contribution of foreign authors is lowest in the journal DJLIT as compared to IRJLIS and ALIS.

Keywords: Bibliometric study, foreign contribution, Annals of library and information studies, DESIDOC journal of library and information technology and International research: journal library and information science.

Introduction:

In simple words Bibliometrics is a statistical analysis of books, articles, or other publications. According to OECD Glossary of Statistical Terms “Bibliometric analysis use data on numbers and authors of scientific publications and on articles and the citations therein (and in patents) to measure the “output” of individuals/research teams, institutions, and countries, to identify national and international networks, and to map the development of new (multi-disciplinary) fields of science and technology.” The term “bibliometrics” was first defined by Allan Prichard in 1969 that’ the application of mathematical and statistical methods of books and other media of communication, it is associated with different set of instructions to find out authors works, publications ratio, and so many one.

Bibliometric study can also be used in analyzing trends in research productivity, find new and emerging areas of research, identifying research collaborators and identifying suitable sources to publish the research content.

According to Kawatra (2000) the Bibliometric is a field based on analysis of books, and other materials on quantitative base no use in qualitative one.

Bibliometrics can be applied to any subject area and to most of the problems concerned with written communication. It helps to monitor growth of literature and patterns of research. This paper studies the bibliometric analysis of the literature published in the Journal of Documentation.

In this study efforts are taken to study and compare articles published in three Library & Information Science Journal namely Annals of Library & Information Studies(ALIS), DESIDOC

Journal of Library and Information Technology(DJLIT) and International Research Journal of Library and Information Science (IRJLIS) published between 2014 and 2018

Source Journal:

Annals of Library and Information Studies (ALIS):

Annals of Library and Information studies is a leading quarterly journal in Library and Information Studies publishing original papers, survey reports, reviews, short communications and letters pertaining to Library Science, Information Science and Computer Applications. The first volume of ALIS was started in 1954 by INSDOC New Delhi. It is a quarterly journal and regularly published till date. The journal's title was expanded to Annals of Library Science and Documentation in 1964 and again renamed in 2001 as Annals of Library and Information Studies. Annals of Library and Information Studies is the oldest LIS Indian journal.

DESIDOC Journal of Library and Information Technology(DJLIT):

DESIDOC Journal of Library & Information Technology (DJLIT), is a peer-reviewed, open access journal. It is a bimonthly journal that publishes original research and review papers related to IT applied to library activities, services, and products. It is meant for librarians, documentation and information professionals, research students and others interested in the field. It is published bimonthly. It was formerly known as 'DESIDOC Bulletin of Information Technology (DBIT)'. DESIDOC Journal of Library & Information Technology is a bi-monthly Journal. Issues are published in the month of January, March, May, July, September, and November.

International Research: Journal of Library and Information Science(IRJLIS)

International Research: Journal of Library and Information Science is a an international peer-reviewed online journal in the field of Library and Information Science publishing original research papers, survey reports, and reviews & opinions pertaining to the subject. It is a quarterly open access journal. The first volume of IJRLIS was published in 2011 and is now available online.

Objectives:

The study has been carried out with following objectives: Five year volume of ALIS, DESIDOC Journal of Library and Information Technology and IRJLIS International Research: journal of library and information science (2014-2018) comprising 689 issues have been studied to find out

1. To examine year-wise distribution of research articles.
2. To examine contribution of foreign authors
3. To examine the authorship pattern
4. To examine length of Papers
5. To compare geographical distributions of contributions in the journal
6. To identify the most prolific foreign institutions publishing

Methodology:

The data for the present study consists of contributions published in three Library Science Journals between 2014-2018. The data for the study was downloaded from the website of these journals i.e. ALIS, DESIDOC Journal of Library and Information Technology and IJRLIS International research journal. To facilitate analysis, data was standardized for different

institutions and journals as there was a wide variation in the names of institutions as well as journals. The data was subsequently analyzed to meet the objectives mentioned above.

Analysis Of Data:

Paper Published:

Total 689 research papers have been published during the span of five years (2014-2018). Table No. 1 shows that maximum No. of papers were published in 2014 and 2018 i.e. 145 and minimum 122 papers were published in the year 2018. DESIDOC publishes maximum no. of publications as compared to ALIS & IRJLIS. As DJLIT is published bi-monthly, maximum no. of research papers(269) is published in the journal followed by quarterly journal IRJLIS with 267 research papers.

Table No. 1: Total No. of Research Papers

Sr. No.	Year	Total no. of Research Papers			Total
		ALIS	DESIDOC	IRJLIS	
1	2014	32	54	59	145
2	2015	37	48	55	140
3	2016	31	49	57	137
4	2017	28	58	59	145
5	2018	25	60	37	122
Total		153	269	267	689

Foreign Contributions:

Table No. 2 shows that total 83 research papers have been contributed by the foreign authors. We can see that IRJLIS have more foreign contributions i.e. 5% of the publication followed by ALIS i.e. 4% and DESIDOC Journal of Library and Information Technology 3%.

Table No. 2: Total No. of Research papers with Foreign contributors

Sr. No.	Year	ALIS		DJLIT		IRJLIS		Total
		Indian Author	Foreign Author	Indian Author	Foreign Author	Indian Author	Foreign Author	
1	2014	26	6	49	5	40	19	145
2	2015	32	5	44	4	53	2	140
3	2016	26	5	45	4	56	1	137
4	2017	23	5	54	4	55	4	145
5	2018	21	4	54	6	28	9	122
Total		128(84%)	25(16%)	246(91%)	23(9%)	232(87%)	35(13%)	689

In all three journals we can observe that Indian authors have contributed more than foreign authors. Contribution of foreign author is lowest that is only 9% in DJLIT followed by 13% in IRJLIS and finally 16% in ALIS.

Authorship Pattern:

The study reveals that joint authorship is preferred way of communication in all three journals i.e. 78, 145 & 154 namely in ALIS, DJLIT & IRJLIS.

Table No. 3: Authorship Pattern

Year	Single Author			Joint Author			Three Author			Four Author			More than four Author		
	ALIS	DJLIT	IRJLIS	ALIS	DJLIT	IRJLIS	ALIS	DJLIT	IRJLIS	ALIS	DJLIT	IRJLIS	ALIS	DJLIT	IRJLIS
2014	11	13	24	15	31	26	4	7	7	2	3	2	0	0	0
2015	17	13	14	14	27	37	4	6	3	1	0	0	1	2	1
2016	7	17	14	20	23	39	2	6	3	2	2	1	0	1	0
2017	8	15	18	14	36	36	6	4	3	0	2	2	0	1	0
2018	6	14	21	15	28	16	1	14	0	3	2	0	0	2	0
Total	49	72	91	78	145	154	17	37	16	8	9	5	1	6	1

Length of Papers

Maximum papers of ALIS, DJLIT and IRJLIS have 6-10 pages (211, 92 and 85) in length followed by 1-5 pages (29, 43 and 9).

Table No. 4: Length of Papers

Year	1-5 pages			6-10 pages			11-15 pages			16-20 pages			More than 21 pages		
	ALIS	DJLIT	IRJLIS	ALIS	DJLIT	IRJLIS	ALIS	DJLIT	IRJLIS	ALIS	DJLIT	IRJLIS	ALIS	DJLIT	IRJLIS
2014	5	8	7	18	41	21	6	4	14	0	1	10	3	0	7
2015	12	6	0	20	37	13	5	5	27	0	0	13	0	0	2
2016	4	11	1	19	34	23	7	4	23	1	0	8	0	0	2
2017	3	9	0	20	49	16	4	0	31	1	0	10	0	0	2
2018	5	9	1	15	50	12	4	0	18	0	0	2	1	1	4
Total	29	43	9	92	211	85	26	13	113	2	1	43	4	1	17

Most Prolific Institution

As shown in Table No. 5 most prolific Institution in contributing in ALIS is CSIR-NISTADS, New Delhi with frequency of 12 publications within the period of study.

Table No. 5: Most prolific Institution-ALIS

Sr. No.	Institute	Country	Frequency
1	CSIR-NISTADS, New Delhi	India	12
2	PES University, Bangalore	India	8
3	University of Calcutta	India	9
4	Department of Science & Technology, Government of India	India	6

5	CSIR-Electronics Engineering Research Institute, Rajasthan	India	3
6	CSIR-National Physical Laboratory, New Delhi	India	3
7	Indira Gandhi Institute of Development Research, Mumbai	India	5
8	Jawaharlal Nehru University, New Delhi	India	3
9	University of Colombo, Sri Lanka	Sri Lanka	4
10	University of Delhi, Delhi	Indian	3

Table No. 6 shows that University Of Delhi is most prolific institution while contributing 16 times in the period of study in the Journal DJLIT.

Table No. 6: Most prolific Institution-DJLIT

Sr.No	Institute	Country	Frequency
1	University of Delhi	India	16
2	University of Calicut, Kerala	India	8
3	Banaras Hindu University, Varanasi	India	7
4	University of Kashmir	India	6
5	Jawaharlal Nehru University, Delhi	India	5
6	Babasaheb Bhimrao Ambedkar University, Lucknow	India	5
7	Covenant University, Nigeria	Nigeria	5
8	University of Mysore, Mysore	India	4
9	DRDO, Delhi	India	3
10	DRDO, New Delhi	India	3

Table No. 7 shows that AMU, Aligarh has contributed 11 times in the journal IRJLIS during the period of study followed by Federal University, Nigeria, and Bangalore University.

Table No. 7: Most Prolific Institution-IRJLIS

Sr.No.	Institute	Country	Frequency
1	AMU, Aligarh	India	11
2	Federal University, Nigeria	Nigeria	9
3	Bangalore University, Bangalore	India	7
4	Karnatak University, Dharwad, Karnataka	India	5
5	Delta State University, Abraka-Nigeria	Nigeria	5
6	Bharati Vidyapeeth Deemed University, Pune, India	India	5
7	Utkal University, Odisha	India	4
8	University of Kashmir	India	4
9	University Library Ekiti, Ado – Ekiti, Nigeria	Nigeria	4
10	The University of Burdwan, West Bengal	India	4

Most Prolific Country

As ALIS and DJLIT are Indian Journals it is obvious that India is most prolific country in publishing research papers. While IRJLIS is an quarterly open access journal with editors from USA, Saudi Arabia and India, most prolific country in publishing research papers in this journal is also India. While contribution of Nigeria in all three journals is worth appreciating with good no. of publications.

Table No. 8 Most Prolific Country

Sr. No.	ALIS		DJLIT		IRJLIS	
	Country	Freq.	Country	Freq.	Country	Freq.
1	India	127	India	247	India	218
2	Srilanka	11	Nigeria	9	Nigeria	32
3	Nigeria	4	Iran	3	Oman	4
4	South Africa	3	South Africa	2	Tanzania	3
5	Iran	3	Fiji	2	Libya	2
6	USA	2	Romnia	1	Ethopia	2
7	Kazakhstan	1	Indonesia	1	Zambia	1
8	Isiala Ngwa North	1	Bangladesh	1	UAE	1
9	Tanzania	1	Austin	1	Iran	1
10			Saudi Arbia	1	Bangladesh	1
11			Jordan	1	China	1
12					Indonesia	1
	Total	153	Total	269	Total	267

Findings & Conclusion:

Total 689 research papers are published in ALIS, DJLIT & IRJLIS during the period of study in span of 5 years (2014-2018). Out of these 689 research papers, 606 were contributed by Indian authors and the rest 83 had been contributed by foreign authors. Thus 83 research papers had been contributed by authors located in 441 institutions scattered over 32 countries. It can be seen that growth in research output is irregular in all the three journals.

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A Survey of Cyber Crime in India with Respect to the Banking Sector

Mrs Yogita A. Bhagwat

Research Scholar

Chhatrapati Shivaji Maharaj University,

Panvel, Navi Mumbai-410206

Dr. P. Dolly Diana

Professor & Dean Faculty of Commerce Management and Hospitality,

Chhatrapati Shivaji Maharaj University.

Panvel, Navi Mumbai-410206

Abstract:

Cybercrime is about the violations in which correspondence channel and specialized gadget has been utilized straightforwardly or by implication as a medium whether it is a Laptop, Work area, PDA, Mobile telephones, Watches, Vehicles. The report named "Worldwide Risks for 2012", predicts digital assaults as one of the best five dangers in the World for Government and business area. Digital wrongdoing is a wrongdoing which is more enthusiastically to distinguish and hardest to stop once happened causing a long-haul adverse consequence on casualties. With the rising prevalence of internet banking, web-based shopping which requires delicate individual and monetary information, it is a term that we hear in the news with some recurrence. Presently, to safeguard ourselves from this wrongdoing we really want to understand what it is and the way in which it does neutralizes us. This paper presents a concise outline of all about digital lawbreakers and wrongdoing with its advancement, types, contextual analysis, preventive majors and the office working to battle this wrongdoing.

Keywords: Cybercrime; Computer legal sciences; IT act 2000; digital regulation; salami assaults; email besieging; web-based betting; web mutilation; information diddling.

1.1 Introduction:

Cybercrime is a generally new worry for regulation requirement authorities. With the rising number of PC proprietors associated with web, the chance for cybercrime is expanding. To comprehend the improvement of cybercrime it is expected to study the language and culture of the web as well as the pathways that interface clients from around the world. The following is the graph of the most recent review by as accessible for year 2011 appearance web clients in world seeing which we may close Asia to accompany the greatest number of web clients and if we go through the contextual analysis of web fakes China is the most affected country in World impacted with this wrongdoing. One more outline included world web utilization furthermore, populace measurements can be inspected to check the expanding number of web clients all over the planet.

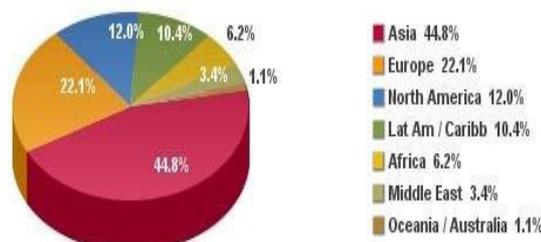


Figure 1: Internet users by World regions-2011.

WORLD INTERNET USAGE AND POPULATION STATISTICS						
December 31, 2011						
World Regions	Population (2011 Est.)	Internet Users Dec. 31, 2000	Internet Users Latest Data	Penetration (% Population)	Growth 2000-2011	Users % of Table
<u>Africa</u>	1,037,524,058	4,514,400	139,875,242	13.5 %	2,988.4 %	6.2 %
<u>Asia</u>	3,879,740,877	114,304,000	1,016,799,076	26.2 %	789.6 %	44.8 %
<u>Europe</u>	816,426,346	105,096,093	500,723,686	61.3 %	376.4 %	22.1 %
<u>Middle East</u>	216,258,843	3,284,800	77,020,995	35.6 %	2,244.8 %	3.4 %
<u>North America</u>	347,394,870	108,096,800	273,067,546	78.6 %	152.6 %	12.0 %
<u>Latin America / Carib.</u>	597,283,165	18,068,919	235,819,740	39.5 %	1,205.1 %	10.4 %
<u>Oceania / Australia</u>	35,426,995	7,620,480	23,927,457	67.5 %	214.0 %	1.1 %
WORLD TOTAL	6,930,055,154	360,985,492	2,267,233,742	32.7 %	528.1 %	100.0 %

Figure 2: World internet users and populations stats.

To understand cybercrime, we have examined the definitions being utilized in the realm of cybercrime

A. Internet

It is a worldwide organization interfacing a great many PCs Worldwide. It is utilized for email, getting to website page, visit, record move and so on.

B. Web Browser

An application for getting to data asset on World Wide Web server. A data asset like page, pictures is distinguished utilizing URL which is a location of the ideal web server.

C. ISP

ISP (Internet Service Provider) is a medium which permits the clients to get to web.

D. IP address

IP (Internet Protocol) is a mathematical name doled out to the gadgets taking part in a PC network which fills in as an identifier for the specific machine.

E. IP address spoofing

It is otherwise called IP address imitation where the IP address of a client is compromised utilizing which the interloper can play out his exercises. The genuine client is designated by the robber whose IP address is utilized to change the parcel headers so that the authentic has all the earmarks of being the first source.

F. Email spoofing

Hacking of email ID. At the point when an interloper involves the email id of a client for the wicked exercises, this is known as email caricaturing.

G. Computer virus

A PC program stacked in a client's PC and goes against his desire having the capacity to harm the documents and recreate.

H. Computer worm

These are the PC program which duplicates itself to spread to different PCs. By and large it involves network as a medium to spread itself because of safety weaknesses of target PC. It is not quite the same as an infection as it needn't bother with itself to be connected to a current program; furthermore, infections work on the objective PC as it were.

I. Phishing

It is an endeavour to take individual data. E.g., A client gets a mail expressing kindly offer your ledger number, PAN number and send amount of 5000INR to deal with the cases he has scored in UK sweepstakes.

J. Spyware

It is malevolent programming introduced on a client's PC without his insight to assemble the data's related with the client. e.g., Keyloggers2.

K. Computer worm

These are the PC program which reproduces itself to spread to different PCs.

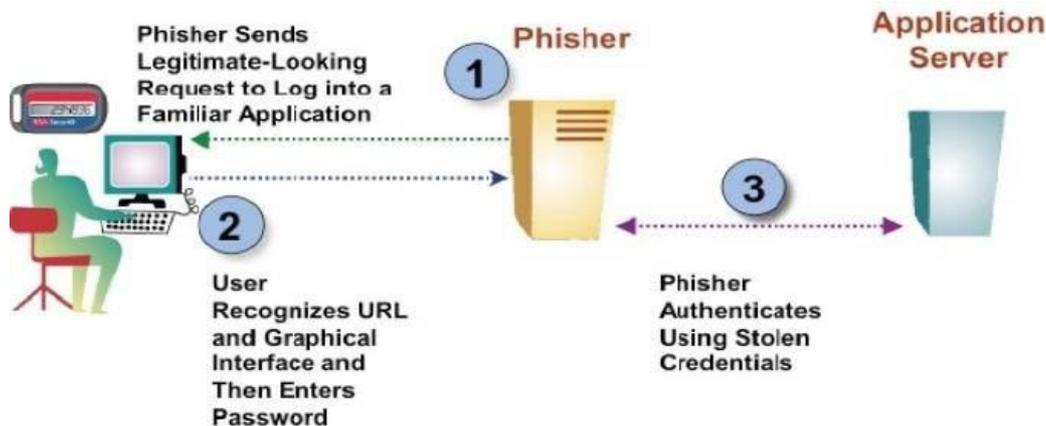


Figure 3: Phishing process block diagram

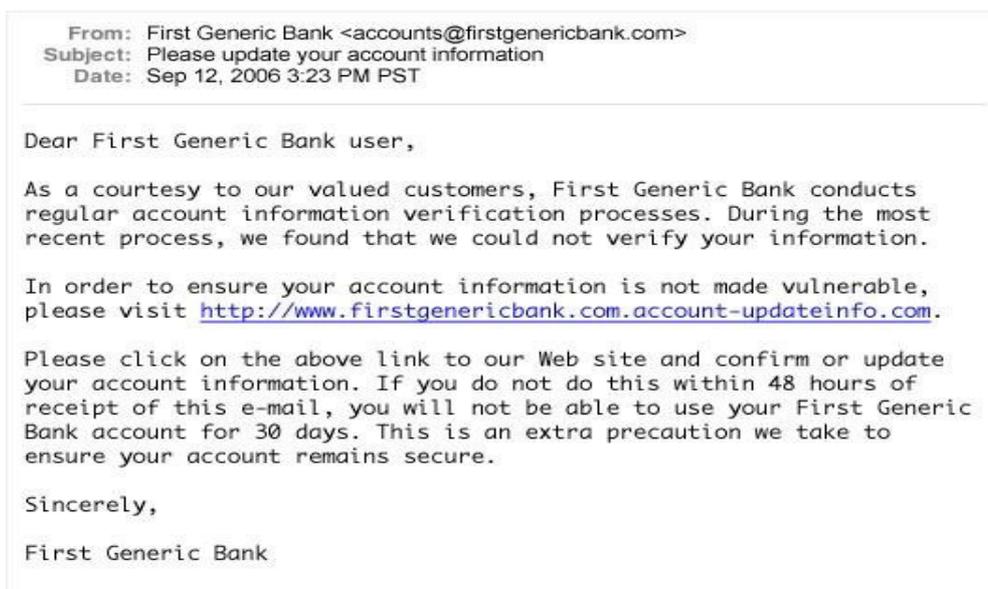


Figure 4: An example of Phishing

For the most part it involves network as a medium to spread itself because of safety deficiencies of target PC. It is not quite the same as an infection as it needn't bother with itself to be connected to a current program; furthermore, infections work on the objective PC as it were.

II. Evolution of Cyber Crime

The primary revealed cybercrime accompanied the execution of "Loom" a gadget delivered by a material maker "Joseph-Marie Jacquard" in 1820 which used to permit the reuse of steps for winding around textures coming about in compromise for the representatives on their customary business and vocation. Because of which they committed demonstration of counterattack to dampen to utilize the innovation moreover. Cybercrime includes conventional crimes like imitation, misrepresentation, burglary, wickedness and criticism as well as web destruction, hacking, web jacking and digital following which have developed in consequence of PC misuse. R Nagpal from Asian school of digital regulation characterizes cybercrime as "unlawful demonstrations wherein the PC is either an instrument or an objective or both" wherein utilized not exclusively is intended for work stations yet in addition incorporates Sophisticated watches, Mobile telephones, Personal Digital Assistants (PDA) and a large group of these contraptions. The vast majority of the cutting-edge wrongdoings whether it is widely popular assault on "World exchange community" in USA, Serial impacts, "The Taj" lodging in India, hacking of online interfaces were unrealistic without the assistance of PCs. Sadly, since the significant number of cybercrimes isn't accounted for so it is preposterous to expect to check with their careful effect on money and society. As digital assaults can bring about horrible outcomes upsetting the rail and aviation authority, securities exchanges, banking frameworks; Intelligence organizations are planning hard to check with these catastrophes.

III. Types of Cyber Crime

- A. Monetary Crimes
- B. Digital Pornography
- C. Offer of Illegal Articles
- D. Web based Gambling
- E. Protected innovation Crimes
- F. Email Spoofing
- G. Fraud
- H. Digital Defamation
- I. Digital Stalking
- J. Web Defacement
- K. Email Bombing
- L. Information Diddling
- M. Salami Attacks
- N. Refusal of Service Attacks
- O. Infection/Worm Attacks
- P. Trojans and Key lumberjacks
- Q. Web Time Theft
- R. Web Jacking
- S. Email Frauds
- T. Digital Terrorism
- U. Digital Warfare



V. Utilization of Encryption by Terrorists

IV. Cybercrime cases in India

As per an article by "Rosemary Clandos" detailing of occurrences is still low in US, For the initial three years (1995-1997) of overview done by CSI-FBI simply 17% respondents had answered to cybercrime however. In the new years the revealing has almost multiplied however has stayed at the 30% imprint. As of late according to the paper article of TOI by SS Gole, Pune

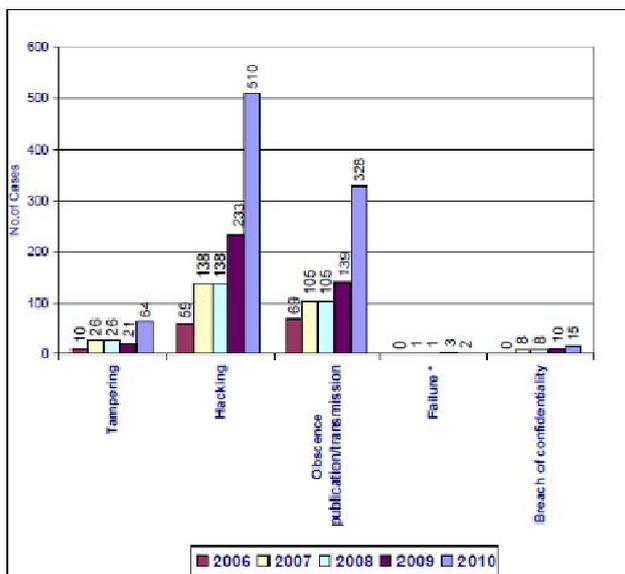
is on third situation among the urban areas impacted by cybercrimes according to the cases enlisted in 2011. Bangalore is the most noteworthy impacted city with 117 cases, trailed by Vishakhapatnam where 107 offenses were recorded as the reports of National Crime Records Bureau. In India, according to the law there are two regulations under which the wrongdoers can be reserved specifically Information Technology Act, 2000 and the Indian Penal Code (IPC). IPC comprises of customary violations, for example, wickedness, maligning, burglary, extortion, fabrication and so on and IT act 2000 comprises of records connected with hacking, unapproved access, copyright infringement and so on.

Figure 5: Cyber Crimes/Cases Registered and Persons Arrested under IT Act during 2007 - 2010

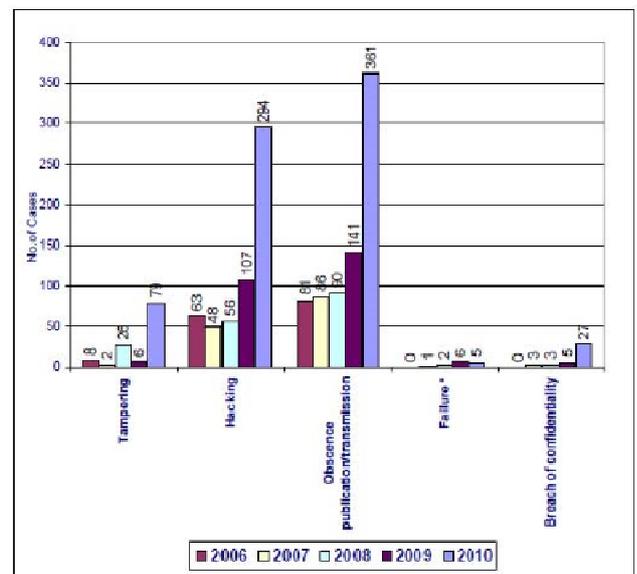
SL. NO.	Crime Heads	Cases Registered				% Variation in 2010 over 2009	Persons Arrested				% Variation in 2010 over 2009
		2007	2008	2009	2010		2007	2008	2009	2010	
1	Tampering computer source documents	11	26	21	64	204.7	2	26	6	79	1216.7
2	Hacking with Computer System										
	i) Loss/damage to computer resource/utility	30	56	115	346	200.8	25	41	63	233	269.8
	ii)Hacking	46	82	118	164	38.9	23	15	44	61	38.6
3	Obscene publication/transmission in electronic form	99	105	139	328	135.9	86	90	141	361	156.0
4	Failure										
	i) Of compliance/orders of Certifying Authority	2	1	3	2	-33.0	1	2	6	5	-16.6
	ii) To assist in decrypting the information intercepted by Govt. Agency	2	0	0	0	@	0	0	0	0	@
5	Un-authorized access/attempt to access to protected computer system	4	3	7	3	57.1	0	1	16	6	-62.5
6	Obtaining licence or Digital Signature Certificate by misrepresentation/suppression of fact	11	0	1	9	800.0	11	0	1	4	300
7	Publishing false Digital Signature Certificate	0	0	1	2	100.0	0	0	0	2	@
8	Fraud Digital Signature Certificate	3	3	4	3	-25	3	0	6	4	33.3
9	Breach of confidentiality/privacy	9	8	10	15	50.0	3	3	5	27	440.0
10	Other	0	4	1	30	2900	0	0	0	17	@
	Total	217	288	420	966	128.4	154	178	288	799	177.4

Note: @ denotes infinite percentage variation because of division by zero

Cases Registered



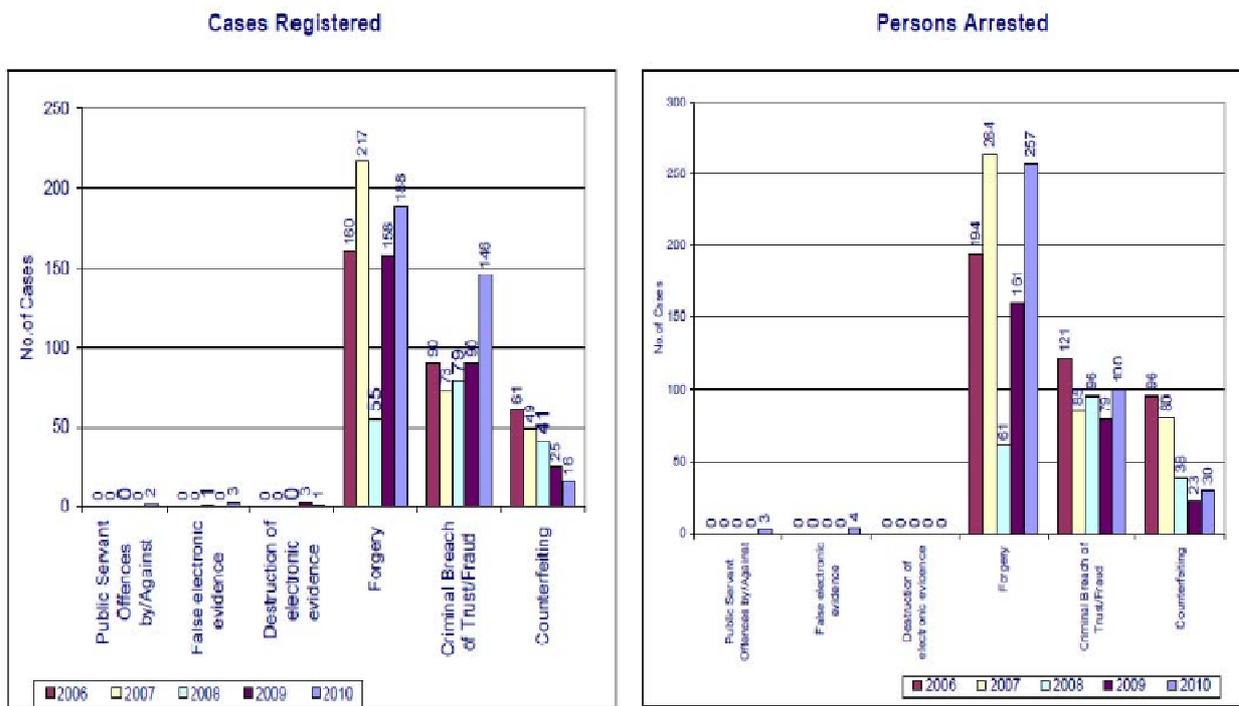
Persons Arrested



* Failure includes the cells (i) Of compliance/orders of certifying Authority (ii) To assist in decrypting the information by Govt. Agency

Figure 6: Cyber Crimes / Cases Registered and Persons Arrested under IT Act during 2006-2010

Figure 7: Cyber Crimes / Cases Registered and Persons Arrested under IPC during 2006 – 2010



While dissecting the reports of NCRB (National Crime Records Bureau) in 2010 digital wrongdoing isn't accounted for in that frame of mind of 35 uber urban communities. 347 cases have been accounted for in 26 super urban communities under IT Act and 150 cases were accounted for in 15 megacities under different segments of IPC. The cases found to have been expanded by 123.0% (from 178 cases in 2009 to 397 cases in 2010) in cases under IT Act when contrasted with past year (2009), and a lessening of 10.7% (from 168 cases in 2009 to 150 cases in 2010) of cases enrolled under different segments of IPC (Table 18.1) Hyderabad(51), Delhi(41), Bengaluru (40), Jamshedpur (27), Aasansol, Bhopal, Chennai, Madurai and Varanasi (10 each) have detailed high frequency of cases (209 out of 347 cases) enlisted under IT Act, representing the greater part of the cases (60.2%) revealed under the IT Act. Mumbai has revealed the most noteworthy frequency (41 out of 150 instances) of cases announced under IPC segments representing 27.3% followed by Pune (26 or 17.3%).Below are the three tables connected with NCRB showing the insights of wrongdoing.

V. Case Study:

We have involved two contextual analyses to execute and expound the most common way of phishing

A. Website Phishing analysis:

An accurate imitation of site of the HSBC bank was designed to comprehend phishing and rehearses. The vital point of the site was to ambush clients and persuade them to present their qualifications (User-name and Password) utilizing phishing mail. In the wake of acquiring the essential approvals from the administration the examples of the people working at HSBC bank were taken. The designated 120 representatives were educated with the beguiling phishing

email about the gamble related with their record with a phony connection presented in the email body which was related with their unique Cust. ID and Password which upheld to check with the record adjusts.

Answer to phishing mail	Exact target Number of employees
Positive interaction (Income Tax Department)	8
Positive interaction (Other Departments)	44
Negative interaction (With incorrect info)	28
Negative interaction (With no response)	40
Sub Total	120

Table1: Website phishing analysis

1.1 Deceiving Phishing Email

The digital wing of the bank has looked for any way to improve your records as of late and has signs of some outsider is attempting to get to the record. It is our essential worry to get our organization and. To keep up with the honesty, Services related with your record have been deactivated which were at risk for penetrating. We demand you to login with the last accessible qualifications to demonstrate the responsibility for account and get it reactivated. After the login a message on the screen will show up as hereunder:

"It is to illuminate you that the fundamental data's given by you have been effectively refreshed in the focal data set of the bank"

Cyber Wing HSBC India

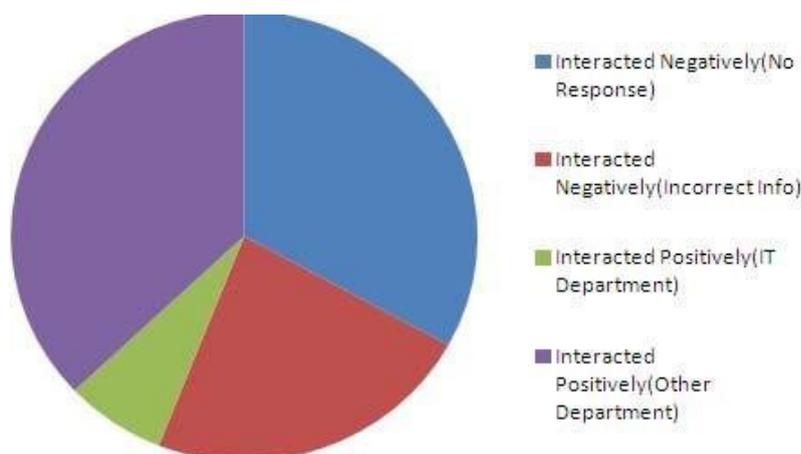


Figure 8: Deceiving Phishing Email

We were fruitful in drawing in 44% (52 out of 120) who answered in a positive way and signed in with their qualifications (client ID, Password). Incredibly the quantity of Income Tax division workers and Income Tax reviewers were 8 out of the 120 casualties addressing 7%, uncovering stunning outcomes, as we anticipated that they should be more refreshed with digital wrongdoing avoidance systems. While going through other division, we were effective in catching 37% who presented the certifications related with the record with no faltering. At last,

we separated 56% (68 out of 120) in which the outcomes were as per the following: 23% (28 worker) were viewed as prepared with the pinnacle level of safety majors as the data provided by them was viewed as mistaken; 33% (40 representatives) subsequent to getting didn't answer by any means. Presently there is an obvious sign as displayed in figure 2 that phishing factor is very perilous since close to half of the representatives who answered were exploited; especially, prepared workers like those of IT Department and IT Inspectors. Expanding the attention to all clients of e-banking in regards to this chance component is strongly suggested; this incorporates clients and representatives the same.

B. Phone Phishing analysis

A sum of target 50 representatives were captivated by female partners who intended to acquire client qualifications connected with their own financial records. The outcome was a lot of above to measure up to our assumptions; this stunt made fall a significant number of them. An ideal talk made them to stand up with their qualifications for counterfeit reasons which incorporate checking their honour and openness, account security and protection confirmation, respectability and network issues and so on. To cause our solicitation to appear as though a genuine call we connected for around three to four time lastly 32% (16 out of 50) workers were captured by sharing the certifications they were utilizing to get to their e-banking office. This high rate stunned us as the objective individuals were from a financial industry that was supposed to be significantly more lased with the dangers of e-banking administrations. 16% (8 workers) shared their client’s name and pardoned for passwords and staying 52% (26 representatives) decline to share the qualifications as they were outfitted with the preventive majors against digital wrongdoing.

Phone Phishing Experiment Response	Exact Number Of Employees
Sharing full credentials	16
Sharing only user name	8
Refused for any information	26
Sub Total	50

Table1: Phone phishing analysis

Subsequent to going through the outcomes with figure1 we can see the reasonable image of safety factor related with social designing which is involved with the immediate dangers for e-banking web administration as the record of an e-bank client is hacked straightforwardly.

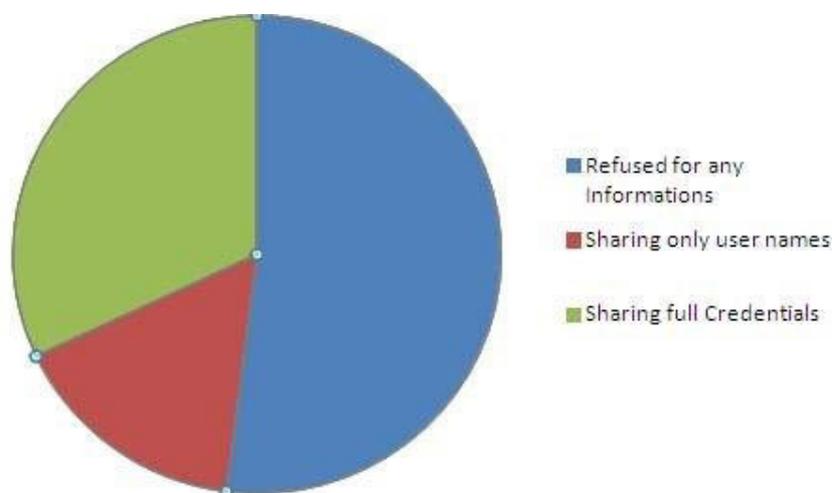


Figure 9: Phone Phishing Analysis

C. Reaction Analysis to the experiments:

We perceived that every one of the representatives who were caught by phishing practice, were with no reaction (they never acknowledged it as a phishing assault); the individuals who were not caught, either never saw the email (as these sends are spam with the majority of the email servers) so no reaction, or remembered it to be a phishing assault and not responded. While a few subjects saw the instructive worth of the experience, and valued the bits of knowledge they had acquired because of being essential for the review, there were more clients who felt that the review had no worth, and felt disregarded at not having been asked consent before the investigation was performed. Curiously, none of the workers conceded to having been tricked by the parodied email and phished banking site, however those who were furious were either irate "for" a fallen companion for it, or upset in rather broad terms. This proposes that there is a reasonable disgrace related with having been misled (regardless of whether any genuine harm was finished), which thusly advises us to be dubious of the outcomes given by overviews of phishing (Peter Finn and Markus Jakobsson, 2006). The investigation was called to be extortion, unlawful, unseemly and unscrupulous by a portion of the workers which show phishing to be related with huge expense with the brain research of the people in question. Indeed, even the information of an individual was not put away they were accusing that the phishers to fault the security infringement. Numerous workers said that they can never got in the snare of such goes after which shows that we are not prepared to acknowledge our own weakness. Subsequently the greater part of the outcomes is not detailed. A few representatives were persuaded that the experimenters had hacked into their email accounts. This response features two worries: initial, barely any individuals comprehend that it is so natural to parody messages; second, numerous clients misjudge the security and protection of email. These responses feature that a few clients don't see the value in the expected repercussions of the data that they readily unveil on the Web. It isn't obvious to them that anybody (without moral worries) can undoubtedly assemble their own data and that generally speaking there are no ramifications for the guilty party. We found as an end that Phishers know very well that greater part of clients even have close to zero insight into the security rehearses and, in this manner, expect that the destinations requesting work force data's are veritable. Presently, on the off chance that a client isn't known to the way that how much got he/she is and expect that they are gotten, it's an extreme errand for a client to separate between a certified and produced security major. A portion of the visual duplicity assaults are even equipped for making the most complex clients a moron, subsequently the outcomes epitomize the disappointment of viability in solid number of clients and recommends the execution of elective methodologies. Numerous members couldn't understand the dependability of the planned markers. To check with realness, some in lieu of going through every one of the parts of the program just utilized the site's items. According to a portion of the members in regards to lock, it will be more viable whenever showed inside the page when it is introduced by the program. Illustrations (energized), plan contacts (favicons URL bar symbols) and pictures convinced a portion of the clients in contrast with SSL markers. Phishers, whenever known with these realities can control a completely stacked and useful site with pictures showing security markers, logos, joins after which a significant piece of the mock site will seem to be a genuine one. In the comparative manner the genuine associations following security majors like permitting clients to login from just devoted SSL safeguarded pages get punished and decided to be at a degree of less reliability. There is an enormous need of mindfulness and instructive

missions about the different digital wrongdoing methods. Mindfulness is the main way which can diminish the weakness and abuse of individual data's.

VI. Conclusion:

In this paper we have depicted different parts of cybercrime with contextual analyses on the side of something very similar. It tends to be reasoned that cybercrime is considerably more shocking and lamentable in contrast with the traditional wrongdoings. In the ongoing situation of advancement which is completely subject to PCs, each country and the public should be outfitted with the information on cybercrime, criminal brain science and the guidelines related with it. "The most effective way to save you from a programmer is to hack yourself".

VII. Acknowledgement:

We might want to thank the digital legal counselors, digital Police, Bankers and researchers engaged with fighting dread, spreading cognizance on the subject of cybercrime and sharing significant data through different electronic and print media which helped a ton in doing all necessary investigation.

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Medicines : A Issues and Challenges in India

Ms. Bhoomi Gaurang Alka Upadhyay

Assistant Professor,

Vidya Vikas college of Arts, Science, Commerce, B.M.M., B.M.S, Chincholi Bunder Road,
Malad (West), Mumbai - 400064. Maharashtra.

Abstract:

There are serious maladies plaguing healthcare sector in a country like India, where corruption prevails. Patients are subjected to unnecessary tests by doctors who are lured by the commission offered by diagnostic centres and patients have no option but to pay the exorbitant fees which is exacerbating to their physical as well as mental agony. There are various such issues and challenges but abiding to the rules of paper, I will focus only on one area that is need to introduce system of generic drugs in a country like India where Health care and Medicines are still difficult for many to afford. Taking into consideration the hardship faced by the common middle-class men and poor people, government has taken various steps to provide better and cheaper health facilities for all. Coming to the term generic drugs, the meaning of the word generally can be stated as one not belonging to any specific class or thing but to general class. In medical and pharmaceutical terminology, it means a class of drugs which do not belong to any patented category.

Introduction:

We may state here that, in foreign countries a lot of research work is being done to dig out the usefulness of a drug proposed to be produced, especially that of Europe and America; pharmaceutical companies set aside a huge amount of money for research and development. However, so far as India is concerned the picture is very dismal, very negligible amount is being spent on research and development by Indian pharmaceuticals and medical companies. The health scenario in Indian society leaves much to be desired. On an average Indian common man is always found to be struggling to make both ends meet, in these circumstances he has hardly any scope for sparing more money for health and medicine; of course, the government is doing a lot of things to evacuate the suffering and to improve the situation, such as recently floated scheme popularly known as Modi care is a step in the right direction, but is not very sufficient to meet the situation. In fact, the idea about general drugs was mooted as early as in 2008, however it was given a concrete shape by Modi government on 1st July 2015 as Jan Aushadhi Yojana. Unfortunately, medical profession has also not made its mark in the matter, nexus between medical representatives and medical practitioners is well known. Doctors are lured by pharmaceutical companies to prescribe their extended drugs to their patient, in this situation there is an urgent need to come down heavily on prevailing corruption practice.

Research Methodology:

Both Primary and Secondary method of research are used in the paper. Questionnaire method was used to conduct

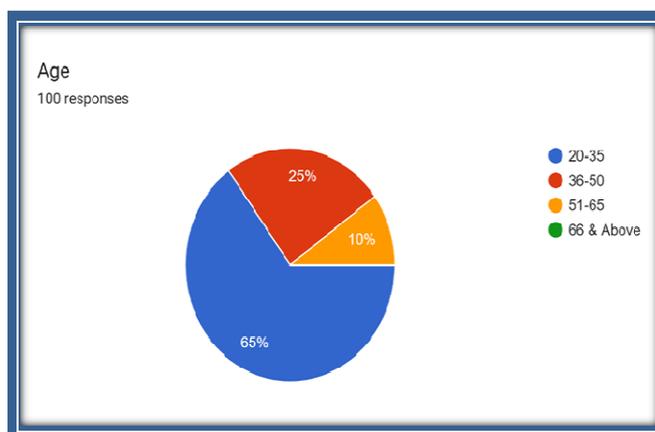


Figure 01.

research. The questionnaire was administered by hundred (100) respondents of different age groups. Secondary data from various websites, books, were used for the research.

In the **Figure 01.** we can see majority of the respondents that is, 65 respondents out of 100 respondents are of age group 20-35 years. 25 respondents out of 100 respondents are in the age of 36-50 years, 10 respondents out of 100 respondents are in the age group of 51-65 years. No respondents are 66 and above. Thus, we can see majority of the respondents are young and future medicine buyers or consumers.

Figure 02. shows that, when asked about the term generic medicines 69 respondents out of 100 respondents were aware about the term, 24 respondents out of 100 respondents were not sure so replied “Maybe” and 7 respondents out of 100 respondents were new to the terminology.

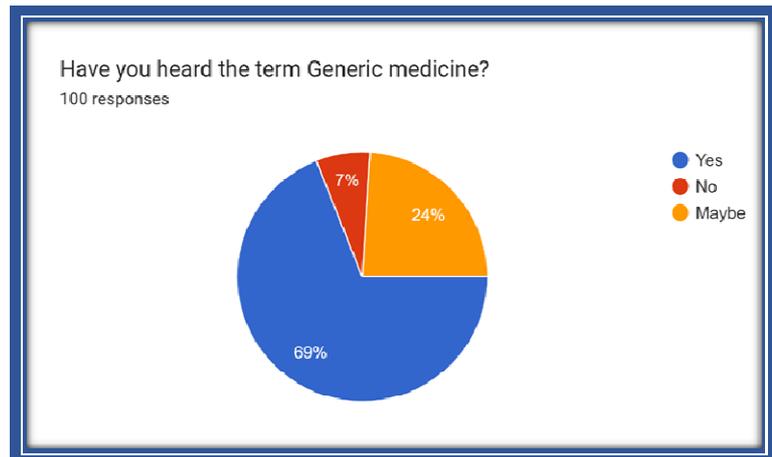


Figure 03. When asked to respondents, if they would prefer buying generic medicines, 43 respondents out of 100 respondents agreed, 48 respondents out of 100 respondents were not sure so responded maybe and 9 respondents out of 100 respondents denied buying generic medicines.

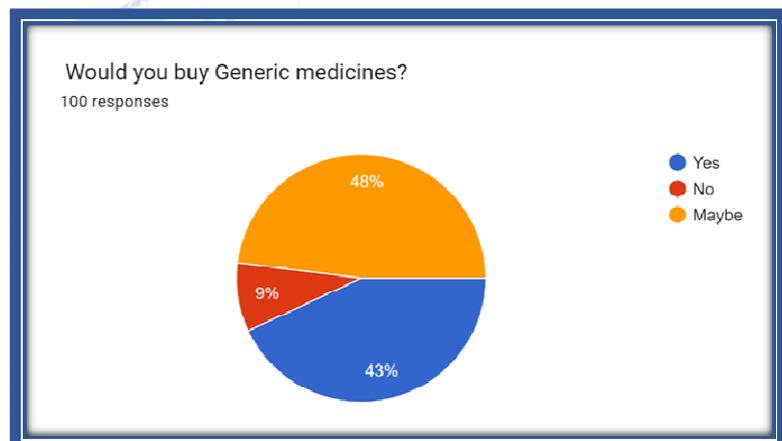
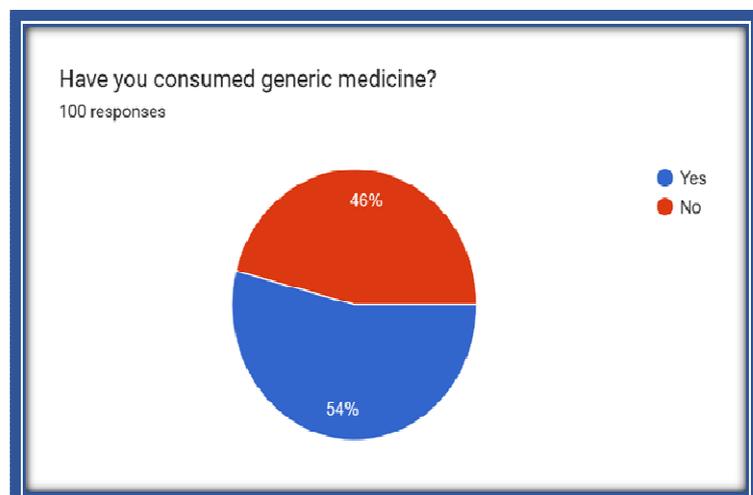


Figure 04. When asked whether they have ever consumed genetic medicine 46% that is 46 respondents out of 100 respondents declined consuming generic medicines where as 54 respondents out of 100 respondents had consumed generic medicines once in a lifetime.



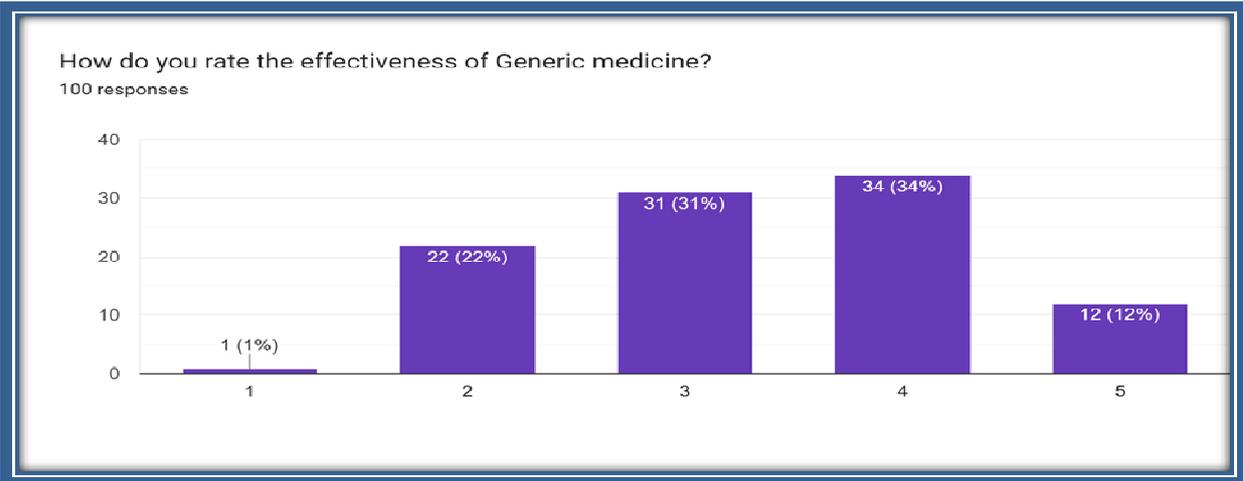


Figure 05.

While talking about the effectiveness of the genetic medicine 34 respondents out of 100 respondents rated it effective (rated 4/5), 12 respondents out of 100 respondents rated it very effective (rated 5/5). 31 respondents out of 100 respondents were neutral (rated 3/5) 22 respondents out of 100 respondents didn't find it effective (rated 2/5) and only one respondents out of 100 respondents declined its effectiveness (rated 1/5).

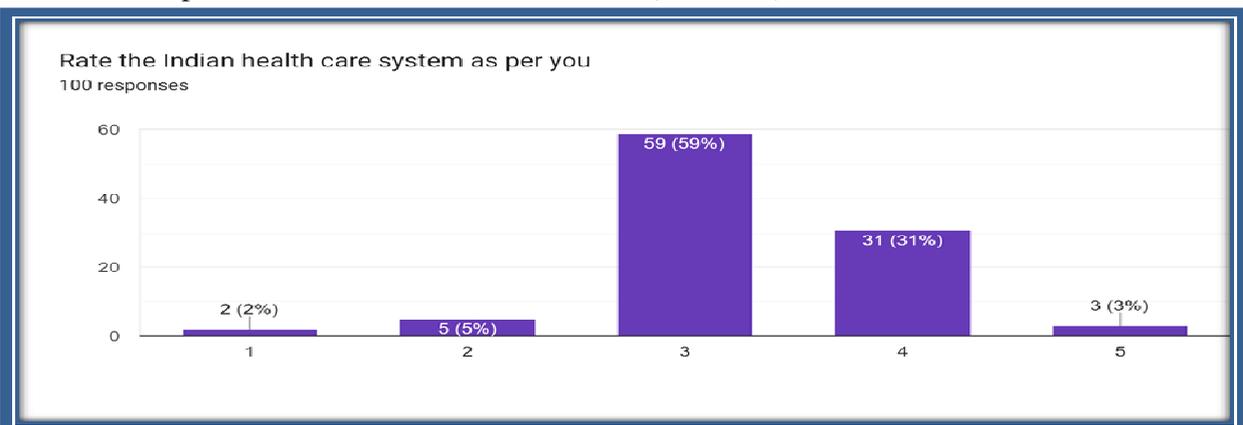


Figure 06.

When asked to rate Indian healthcare system 59 respondents out of 100 respondents rated it at an average rating of three out of five. 31 respondents out of 100 respondents were satisfied and rated it as four out of five. only 3 respondents out of 100 respondents rated it five out of five. where as 5 respondents out of 100 respondents rated it two out of five and 2 respondents out of 100 respondents rated it one out of five.

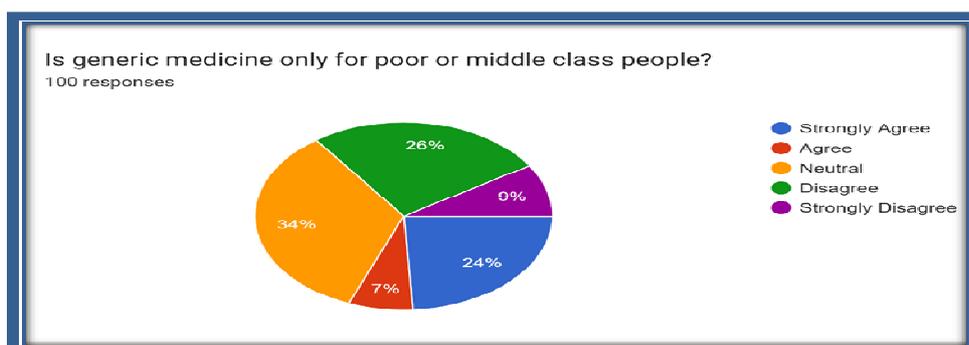


Figure 07.

When asked generic medicines are only for poor or middle-class people 9% that is, 9 respondents out of 100 respondents strongly disagreed, 26 respondents out of 100 respondents disagreed, 34 respondents out of 100 respondents were neutral, 7 respondents out of 100 respondents agreed and 24 respondents out of 100 respondents strongly agreed.

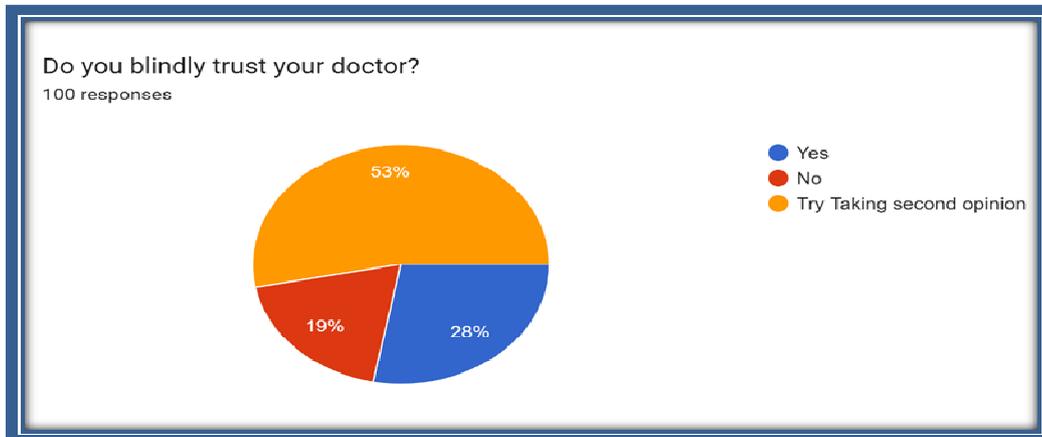


Figure 08.

When asked if they blindly trusted their doctor 53 respondents out of 100 respondents took second opinion, 19 respondents out of 100 respondents did not trust the doctor, where as 28 respondents out of 100 respondents blindly trusted their doctor.

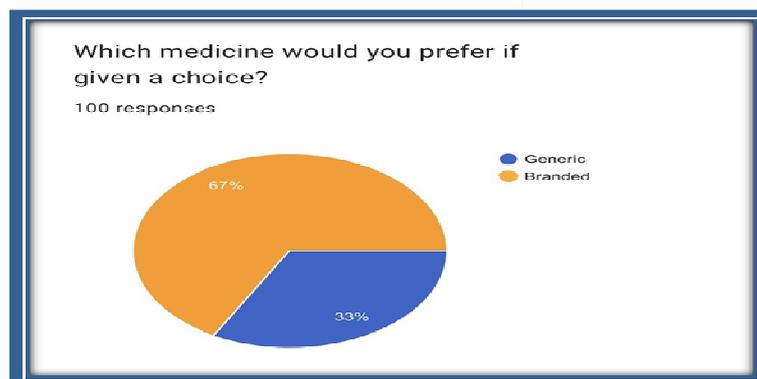


Figure 09.

When asked to respondents that which medicines would they prefer if given a choice, major chunk of 67 respondents out of 100 respondents preferred branded medicines over generic medicines. generic medicines were only preferred by 33 respondents out of 100 respondents.

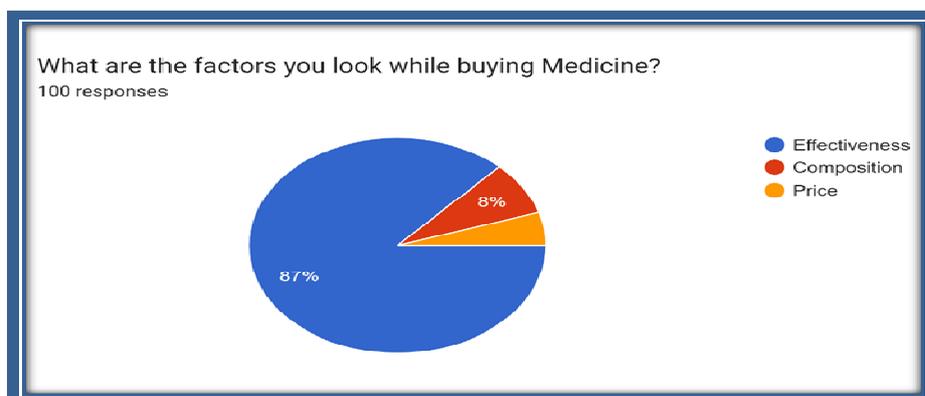


Figure 10.

While buying the medicines the factors considered by the respondents out of effectiveness, composition and price of the medicine. majority of respondents, that is 87 respondents out of 100 respondents, considered effectiveness as their prime factor, where as 9% that is out of 100 respondents, considered composition and 3% that is three respondents out of 100 respondents considered price as their factor while buying their medicine.

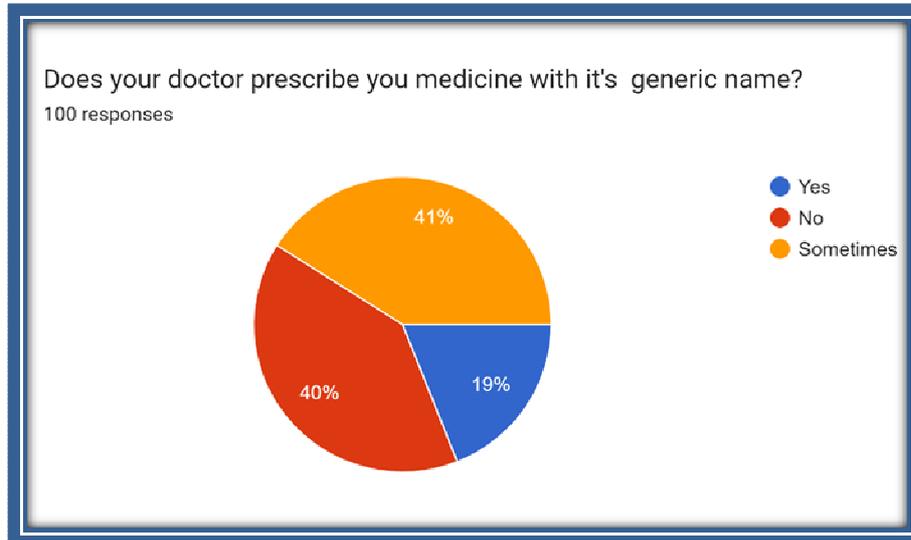


Figure 11.

When asked to the respondent that their doctor prescribed them medicines with its generic name then, 40% that is 40 respondents out of 100 respondents declined and responded “No”. 41% that is 41 respondents out of 100 respondents said “sometimes” and 19% respondents out of 100 respondents that is only 19 respondents agreed that their doctor prescribed them medicines with its generic name.

Results And Findings:

From the Survey we come to know that there is a still need for generic medicines to be promoted well. Doctors should not get into lucrative offers of medical or pharmaceutical companies and rather prescribe medicines with their generic name as well, so that there is a second option available for the patient to buy the medicine.

The myth about genetic medicine not being effective needs to be clarified and proper knowledge and its composition and effectiveness should be shown and demonstrated to the general public and patient; and thus opening a new opportunity for all the patients whether belonging from middle-class, poor or high class have an option of medicines that is effective and would cost less on their pockets.

The market capture of branded medicine is huge and if generic medicines are to be launched there is a proper need for it to be advertised and promoted well by government as well as the local family, as well as other doctor and medical practitioners.

The trust in doctors is reducing day by day because of new cases coming now a days of doctors being corrupt. Doctors take Hippocratic oath and thus abiding to proper conduct of medical practice, they need to respect that oath and be honest towards patients so that they can trust their doctors. The myth that generic medicines are only for poor and middle-class people needs to be eradicated by the general medical practitioners and doctors.

The Indian health care system has improved over a period of time, yet there is a need for it to be relevant and time bound, so Indian healthcare system needs to improve; this can be done only when a new option of generic medicine would be available for people in general public and

the prevailing corruption would reduce in the healthcare sector. Proper awareness and promotion of generic medicine should be done by the government and the doctors which would lead the common people and the patients to buy and consume generic medicines, looking at their composition and effectiveness, rather than just having a myth of it being inefficient or incompetent along with branded medicines.

Conclusion:

Prescribing genetic drugs will give a huge opportunity to a patient. He can make a choice of his own and prefer to purchase a drug which is cheap effective and meticulous. Under the medical council rules and directions, a physician is legally obliged to prescribe drugs by the generic names only however hardly do they follow and obey. As stated by me earlier there is a need to introduce the generic drug system because of poverty, over health ignorance and for the upliftment of downtrodden. All said and done let us hope that medical practitioners stick to their Hippocratic oath and serve the poor and society for which they joined the noble profession thank you.

Acknowledgement:

I would thank my sir Dr. Vivek Chaubey for his time and guidance. This research paper would not have been possible without blessings of my Grandfather Manubhai Upadhyay and constant support of my parents Gaurang and Alka Upadhyay, teachers, family and friends. Thank you to all the respondents for helping me in my Survey.

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Criminal Liability & Digital Rights in India

Asst. Prof. Sunil Harale

Swatantrya Senani Ramrao Awargaonkar Law College,
Beed, Maharashtra, India

(Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra)

Abstract:

Criminal, civil and administrative intellectual property (IP) are the three major categories of judicially adjudicated IP cases. However, as criminal cases impose the most severe form of punishment for IP infringement and can involve personal freedom, they are special. Although some courts have implemented the notion of bringing administrative, civil and criminal trials under a single auspice, in general, criminal IP cases arise based on cases opened and investigated by the public security authority or referral from administrative investigations. Even if leads are provided by a rights holder when initiating a case to the authorities, a rights holder has no right to withdraw once a case is opened. However, rights holders do not just passively await the outcome, as initiating a criminal case and the handling procedures demand their attention. Internet intermediaries, are responsible for facilitating transactions on the Internet between various Internet users. Since, these Internet intermediaries are the only physical signposts in the virtual world of cyberspace, they are saddled with many gatekeeping responsibilities by law. In India, Internet intermediaries are given statutory conditional immunity from vicarious criminal liability. However, if the statutory conditions are violated, the veil of protection is lifted and the Internet intermediary becomes liable along with the actual offender.

Key Words – Criminal, Liability, Digital Rights, ICT, IPR, IP, Cyber Crime etc.

Introduction:

Many IP infringement cases may satisfy the criteria for opening a criminal case but eventually may not be initiated. A rights holder may have obtained effective compensation and resolved the dispute through settlement or civil action; or, rarely, an infringer may ultimately obtain a licence from a rights holder. Particularly in trade secret infringement cases, unless a rights holder actively reports a case to the authorities and petitions for starting a criminal case, initiating a criminal case can be difficult. Although criminal cases provide the greatest deterrence and have a strong effect in combating and curbing potential infringement, other than when a public security authority institutes a criminal IP case in accordance with the law, it falls to rights holders to carefully consider whether to initiate a criminal case to pursue an infringer's liability.

In trade secret infringement cases, a rights holder, as the victim and motivated by a desire for their "pound of flesh", will often want to pursue the infringer for criminal liability. However, a rights holder will find it difficult to meet the evidence requirements for opening a criminal IP case. If efforts are concentrated on a criminal case, it is possible a rights holder's opportunity to obtain better compensation and commercial effect in subsequent negotiations or a civil case slips away. Ultimately, it is possible that a criminal case will fail to get off the ground and civil damages will also fail to achieve their intended effect because of animosity triggered by the attempt to initiate criminal proceedings. Where each party has a rights basis, an equivalent fierce reaction could arise, placing the rights holder in legal jeopardy.

The author argues that a criminal case is a double-edged sword for a rights holder. It has the strongest effect in punishing and deterring IP infringement, but can also lead to an irreconcilable conflict with, and fierce antagonism from, the other party due to an unsuccessful effort to institute a criminal action.

Before reporting a criminal case to the authorities, it is important not to act rashly, but to comprehensively analyse the circumstances, the nature of the infringement, the evidence, and its impact on subsequent business. If the conditions are fully satisfied and the circumstances thoroughly weighed, then a case can be decisively initiated. However, if the conditions are not fully satisfied or there is a more appropriate plan, a choice should be carefully made.

Participation After Initiation:

In a criminal IP case, evidence provided by a rights holder to the case handling authority is often crucial for a conviction. Where a rights holder reports a case directly to the public security authority, it will be required to co-operate with the authority in gathering and collation of leads and evidence. If the authority succeeds in taking the case, a rights holder will have the right to participate in the proceedings in person or by appointing an agent to do so during examination and action institution. After the case has been referred to the procuratorial authority, it can provide leads and evidence and express its opinion during the judicial appraisal, or when the case handling authority is considering the quantity, price and severity of the infringement. For damages, except for the occasional case in which the court is willing to accept a civil case instituted by a rights holder incidentally to a criminal case, the majority of courts only recognise the legal status of the rights holder while holding that the rights holder has not sustained a “material loss” and therefore they do not accept the civil procedure incidental to the criminal case.

That does not affect an effort by an infringer to voluntarily and actively compensate a rights holder during the criminal trial. An infringer may have its criminal punishment reduced and a rights holder may receive compensation more quickly and avoid the expenditure of time, energy and money required for a subsequent civil action.

After a trial ends, a rights holder may institute a separate civil action to address the same infringement and seek relief. The advantages are that the infringement was determined in the criminal trial and damages in a civil action are not limited only to direct losses. In practice, a claim for punitive damages is not affected by a preceding criminal case. However, having gone through a criminal case, an infringer’s confrontational mindset may be even more determined, making subsequent enforcement harder.

In summary, if an IP criminal case is reasonably instituted in the appropriate case setting, it will effectively combat infringement, and deter and curb potential infringement, presenting the possibility of receiving compensation quickly during a trial of the criminal case. However, if things do not go to plan, it is possible that instituting a criminal case will fail and other relief opportunities may be lost or, in the worst case, the other party may countersue. Although the advantages of pursuing liability via an IP criminal case are clear, great care must be taken in doing so.

Artificial intelligence (hereinafter – AI) becomes an integral part of almost all branches of science. The ability of AI to self-learning and self-development are properties that allow this new formation to compete with the human intelligence and perform actions that put it on a par with humans. In this regard, the author aims to determine whether it is possible to apply criminal

liability to AI, since the latter is likely to be recognized as a subject of legal relations in the future. Based on a number of examinations and practical examples, the author makes the following conclusion: AI is fundamentally capable of being criminally liable; in addition, it is capable of correcting its own behavior under the influence of coercive measures.

Rapidly developing public relations with the participation of artificial intelligence form significant criminological risks: information that is accessed in information and telecommunications networks due to its physical properties is exposed to the greatest threat of illegal influence coming from artificial intelligence, software and electronic information systems of critical information infrastructure objects currently do not have the means and methods of protection from attacks of such cybernetic entities, this significantly actualizes the development of science-based positions on the relative legal regulation of the position of artificial intelligence and the development of legal models of protection from attacks that can potentially come from it. In our research, we rely on the thematic base of national legislation (an example of this is the provisions of the acts of The government of the Russian Federation), scientific works of domestic and foreign experts published in different periods of time, combined research of artificial intelligence, General scientific works, as well as information distributed by the media.

It is now common knowledge that digital innovation can be used for both the public good and criminal purposes. And first of all, it concerns cybercrime, the level of aggression of which increases every year. It is for this reason why Europol and its partner organizations are fighting cybercriminals across the Board.

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Thalinomics

Arun Kumar

MBA 1A Student

St. Joseph's Degree & PG College

Dr. Gujarai Rani

Associate Professor

St. Joseph's Degree & PG College

Dr. Gopisetty Hemalatha

Abstract: Thalinomics is the word which most of us still are unaware of.

Purpose: The purpose of this paper is to bring into the light the topic of thalinomics and also to understand the factors that play the active role in calculating the thali prices across India.

Originality: The research has not been done before even after its repeated usage in the economic surveys and Indian budget.

Research Methodology: The research design employed for this paper is descriptive study. The data is mostly derived from the secondary sources such as Economic surveys, Indian budget, prominent newspapers.

Findings: The paper successfully explains the concept of thalinomics, explains the meaning of thali and what it contains. It has gone in depth in creating awareness on how the thali price is calculated across all states of India and also Union Territories

Keywords: Thali, Thalinomics, price determination, meal

Introduction:

What is Thali?

Thali represents complete meal which a common man needs for receiving complete nourishment. It includes the rice, cereal, pulses, vegetables



What is Thalinomics

- Thalinomics word is first coined by the Economic Survey of India in 2019-20.

Chief economic adviser Krishnamurthy Subramanian unveiled what he called "Thalinomics" in the Economic Survey for 2019-20 taking a cue from his predecessor and teacher Raghuram G. Rajan's "Dosanomics"

As food is basic necessity and with rapid rise in the prices of most basic food constituents have direct effect on common man.

Food and beverages constitute around 45.9% of consumer price index. So therefore this is the most effective way to know the inflation trends.

Thali means meal. Meal here comprises of rice, wheat flour, daal, vegetables, fruits, spices. Basically a complete healthy mix of diet for a common man.

Review of Literature:

- Thalonomics is the economics of a plate of food in India. The price of a meal, both vegetarian and non-vegetarian, is modelled for 25 States/UTs, taking into account the price of cereals, vegetables, pulses and the cost of fuel (The Hindu, 2020).
- Analysing this data, the survey found that since 2015-16, there was a change in the dynamics of 'thali' prices. It claims that the reforms undertaken a year ago to enhance agricultural productivity as well as efficiency and effectiveness of agricultural markets for better and more transparent price discovery led to the change in prices of thali (Times Now).
- Indian budget survey in their report of 2020-21 has concluded that the thali cost is increasing every year with the rising inflation. The Indian budget has determined the price of thali based on the annual earnings of the average individual.
- In June/December 2020, the most expensive place for a vegetarian thali in urban areas was Andaman and Nicobar islands. It offered a thali for Rs 40. On the other hand, Madhya Pradesh was the cheapest Rs 24. In terms of non-vegetarian thali, Mizoram was the most expensive Rs 52.4 while one could have it in Haryana for only Rs 28 (Times Now, 2020)

Research Methodology:

- This study is basically a descriptive study. Most of the data that has been derived is from secondary sources. Since the concept is very novel, research in this area is very limited. Hence the secondary sources are limited to Economic Survey Reports of India and Indian budget documents and newspaper sources

Objectives of the Paper:

1. To create awareness on the thalinomics concept adopted by the Economic survey of India.
2. To probe at a deeper level the detailed components involved in the Thali.
3. To understand the price determination of Thali in different states and UTs.

Discussion/Findings

- The first objective states to create awareness of Thalinomics

Thalinomics in simple words means economics related to one Indian meal- Thali.

The economics here means the cost component involved for a common man to eat one complete meal.

This Thali cost will differ from state to state because of the different market rates of different components of a thali like cereal, pulses, rice, vegetables, etc.

- The second objective is to probe at a deeper level the detailed components involved in the Thali.

The components involved in the Thali are as follows:

What's In A Thali?

Vegetarian Thali	Non-Vegetarian Thali
<p>CEREALS (300 grams): Rice and wheat</p> <p>VEGETABLES (150 grams): Potato, onion, tomato have been taken as the staple vegetables and brinjal, cabbage, cauliflower and lady's finger</p> <p>PULSES (60 grams): Arhar, gram dal, masur dal, moong dal and urad dal</p>	<p>CEREALS (300 grams): Rice and wheat</p> <p>VEGETABLES (150 grams): Potato, onion, tomato have been taken as the staple vegetables and brinjal, cabbage, cauliflower and lady's finger</p> <p>NON-VEG ITEM (60 grams): Eggs, fish (fresh) and goat meat</p>

Bloomberg | Quint

(Source: Bloomsberg)

As we can see from the above image, there is a distinction between vegetarian thali and non-vegetarian thali. Both have similar content like rice, wheat, vegetables like potato, tomato, onion. The basic distinction in vegetarian and nonvegetarian thali is in vegetarian thali, pulses are included. Whereas in nonvegetarian thali, eggs, fish and meat are included.

What Else Goes Into The Thali?

Components Of Thali	Other Ingredients
<p>Sabzi </p>	0.2 grams of turmeric, 0.5 grams of chillies-dry, 1 gram of salt, 0.5 grams of coriander, 10 grams of cooking oil
<p>Dal </p>	0.2 grams of turmeric, 0.2 gram of salt, 0.2 grams of chillies-dry, 1 gram of zeera/mustard seeds, 10 grams of oil
<p>Non-Vegetarian </p>	0.1 grams of turmeric, 0.2 grams of chillies-dry, 0.5 gram of salt, 0.2 grams of coriander, 0.1 gram of mixed spices, 0.5 gram ginger, 0.5 gram garlic, 15 grams of onion, 12 grams of tomato, 10 grams of cooking oil

Bloomberg | Quint

(Source: Bloomsberg)

Apart from the above mentioned items, turmeric, chiles, salt, mustard seeds, coriander and also oil is included in the thali.

- The third objective is to understand the price determination of Thali in different states and UTs.

The price of the thali is determined by calculating the monthly price data for which the Consumer Price Index is taken. In the survey, the government has examined the industrial's worker's ability to pay for two meals of five individuals.

Thali prices are constructed for 25 states/UTs taking into account the price for cereals, vegetables, pulses as well as the cost of fuel.

Right now Jharkhand has the cheapest veg thali. Tripura and Bihar have costliest veg thali.

Jharkhand and Chattisgarh have the cheapest non-veg thali.

Jammu and Kashmir and Telangana have the costliest non-veg thali

Conclusion:

- In a country like ours, where people remember the events with the satisfaction they derived from the food that was served in that particular function, thalinomics is really a great concept to be worked on.
- We measure our satisfaction of job/business with the food that we are able to keep on the table for our loved ones, so thalinomics-the concept where the cost of one meal for a common man is taken into account in determining the economics of the country is indeed a great concept. The price inflation and the market prices are duly accounted with respect to each state. It can be a good standard to measure each state's food affordability and availability.

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An Overview of Artificial Intelligence

Mrs. Priyanka Madhukar Jagtap

Dept. of Master of Computer Application

Assistant Professor

Dr. B.V.Hiray College of Management and Research Centre, Malegaon, Nashik.

Abstract:

Every Day to Day Life the Technology growing Faster. We have increased our Knowledge of the Various Types of Current Trends we have to learn the new Computer Field Technology. Main Goal of this paper is to know about the basic knowledge about the How the Interaction between the User and Computer actually it happens and basic concept related to the Artificial Intelligence. The Human Computer Interaction (HCI) and Artificial Intelligence is Collaborative (Multidisciplinary) Sector focus design Computer Technology. This Article Focuses on the User and the Computer System Interaction and Artificial Intelligence.

Keywords: Human Computer Interaction, Basic Concept of Artificial Intelligence, Opportunities and Challenges.

Introduction:

Human-Computer Interaction:

The Human Computer Interaction deals with the design and implementation of the software product it means user can access the system smoothly. From Desktop to Android mobiles, Tabs there are the various Devices is available and interaction is happened in between the computer and human. Human means it is end-User who has the knowledge about the Computer system. Computer It is a machine either we can say that Software and Hardware. Interaction it means Human and Computer Communicate with each other. It is also called as the Client server model. It means user can send the Request and Server (Computer System) fulfil that Users Request. Also User can enjoy the lots of time on the computer. Now a day's all the Business man, Professional Personals, Students these are the different Sector Users Uses the Android Devices by doing the Official Work, Entertainment Purpose, Educational Purpose etc. The main Focus of this Paper how the Human Computer Interaction happen and Artificial Intelligence concept. The Artificial Intelligence is one of the blooming Technologies in today's World.

Types of interfaces in Human-Computer Interaction.

- **Command Line Interface:** The Command Line Interfaces means user must give the proper instruction to the computer with the help of command Line than its gives the appropriate output to the user.
- **Menu Driven Interfaces:** The Menu Driven Interfaces provides a list of option we have to select one of these options in Menus.
- **Graphical User Interface:** It is Software Applications. Most of the People Familiar with the GUI and Users interact devices buy using mouse, icons etc.
- **Touch Screen Graphical User Interfaces:** Touch Screen Graphical Interfaces Requires users to touch the screen with the help of fingers. Sometimes it is easier than handling or clicking the mouse. We can also magnify the screen as per our Requirement.

- **Artificial Intelligence**

Artificial Intelligence is one of the most important Fields to change the world day by day. It is one of the Advance Technology all around us. AI is new innovative trend in big Enterprise Organization. The Artificial means the things which is made by Human/Persons and Intelligence Means the thinking Power. In General AI Means the Machines thinking Power is just like the Human thinking Power. By using the Artificial Intelligence We can solve the Real World Problems just like Robot, Playing Games etc. Artificial intelligence Work performance is more than Human Speed means analyzing the large Documents data is very easily captured Quickly find the errors with help of machines that means learning and Problem Solving technology it Reduces time and result oriented technology.

- **Types of Artificial Intelligence**

There are two types of Artificial Intelligence Type-I and Type-II

Type –I Contains 1) Weak AI 2) General AI 3) Strong AI

- 1) **Weak AI:** Weak AI is also called as Narrow AI which is performing only a dedicated or trained specific task hence it is called as Weak AI. Examples of weak AI are Games, text to Speech recognition.
- 2) **General AI:** General AI is a type of Intelligence of a system work just like a human efficiency means think like a human.
- 3) **Super AI:** Super AI is also called as a Strong AI can perform any task better than human.

Type –II Contains 1) Reactive Machines 2) Limited Memory 3) Theory of Mind

- 1) **Reactive Machines:** In Reactive Machines AI systems do not store memories for future references. These machines only focus on current situations and react on it as per possible best action.
- 2) **Limited Memory:** In Limited Memory machine can store the past data for short period of time.
- 3) **Theory of Mind:** Theory of Mind AI should understand the human emotions, people, beliefs, and be able to interact like humans.

- **Core Concept Related to Artificial Intelligence**

- 1) **Knowledge Representation:** As per the Knowledge the human Perform the Various Action in the real world. Represent the Information in the form of computer system .Knowledge Representation is a Part of AI.
- 2) **Machine Learning:** Machine Learning is a Part of Artificial Intelligence followed with the Development of algorithms. Machine Learning Can Be Classified into three Categories
 - Supervised Learning
 - Unsupervised Learning
 - Reinforcement Learning
- 3) **Deep Learning:** Deep Learning is a Statistical tool of Machine Learning.
- 4) **Natural Language Processing:** It is Branch of Artificial Intelligence and ability to understand the text to speech Recognition same way human being can.
- 5) **Intelligent Agent:** Agent can be grouped into different classes based on their Capabilities Simplex Reflex Agent, Model-Bases Reflex Agent, and Goal Based Agent etc.
- 6) **Robotics and AI:** Robotic is a Separate entity in AI that helps to create a Machine.

- **Applications of Artificial Intelligence**

1. Games- Playing the Chess Game
2. Health Care- Understanding the Living things and reading
3. Mathematics-Solving the Hypothesis related Concept
4. Online Shopping
5. Travelling
6. Industries

- **Advantages of Artificial Intelligence**

1. **Reduces Quick Errors**

A Computer Machines Can't Make a mistake if the all the algorithm of a Particular Program is Correct while Human make a Mistake.

2. **Reduces the Risk**

Some of the situation happens that human can't give the risk means human cannot work on that for example defusing bomb but machines do that particular work.

3. **All time Available**

A normal Person work maximum twelve Hours at certain stage human very tiered but a computer Machine Work full day machines need not take a rest.

4. **Quick Decision**

While Executing an Algorithm or take decision on a certain problem that time quick response is from Machines.

- **Disadvantages of Artificial Intelligence**

1. **High Cost**

As the Technology is very inventive so the Resources required for particular Application Development Cost is more means we cannot predict the amount.

2. **Don't Have Emotions**

As we are very known about that Machines not have Emotions. They don't Share their thought with others. A machine only works on human give the instructions and performs that particular task.

3. **Decreases Human Skill**

Humans are completely dependent on Machine or Robots if this scenario happens the next generation so the next generation people completely dependent on machine. Human does not uses their own skill.

- **Challenges of Artificial Intelligence:**

1. **Techniques of AI is more Complex**

Machine Learning (ML) and Deep Learning (DL) is a part of Artificial Intelligence techniques that most beneficial require a series of calculations to made very Easy and Fast. It clearly Shows that these AI techniques Saves a lot of processing power.

2. **Small Number of people Collaboration**

By using the Techniques and algorithms of AI are very difficult to implement. For AI based Project so invest the money for Particular AI Project Means it is clear that there are very few peoples or employees who have work on AI techniques.

3. Stakeholders Communications is more effectively

For Doing a Project for AI employees don't feel comfortable when they don't understand how the decision takes place. Hence, AI has not been able to create trust among employees. Team can work together and decide how the best solution we find.

4. Focused on Task

Fully concentration of a Particular task is more important. If we are not work properly at that time our Decision is wrongly taken and Our Product not gives the 100% Quality.

5. Data security

Most of the AI Software is based on large volumes of data to learn and make intelligent decisions. The Artificial Intelligent Technology is new and advance working on a Particular Algorithm is more Difficult that means to handle such type of data or Algorithms is more complex. Data Security is maintained is more difficult task in AI Applications.

• Opportunities of Artificial Intelligence:

Artificial Intelligence has various Opportunities in Enterprise organisation. Many of the Developers has there won Artificial Intelligence Application.

1. Artificial Intelligence in Business:

Many of the Small and Big Industry uses Advance Technology like Artificial Intelligence for their better Quality of Product. Authorised Person things about the Particular technology and gives the better decision of his business.

2. Artificial Intelligence in Health care:

For Diagnosis a Particular Diseases Accurately Artificial Intelligence is play very vital Role. E.g. Appointment, Bill Payment is very easy etc.

3. Artificial Intelligence in Transport:

Artificial Intelligence is a very Systematic Transport to optimize the Navigation Maps and Road. AI Gives the quick Result.

• Conclusion:

Machines and Human Interaction is more increases For Better Prepare for future. Artificial Intelligence more impacted in our Human lives. Almost most of the things are happen with the help of machines. In Future Human Energy is consumed with the help of AI technology. In this paper I discusses basic concept related to Artificial Intelligence those who referred this articles they know the basic idea of AI. In Future the Artificial Intelligence technology is more and more Grows up there are some advantages and disadvantages is also there.

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Knowledge, Attitude, and Practices on the Use of Bleaching Agents Among Students in the University, Al Dakhliya Governorate, Sultanate of Oman.

Ms. Amina Salim Ahmed Al Kathiri

Staff Nurse, Salalah Al Jadidah Health Center, Sultanate of Oman

Ms. Jiji joseph

Instructor in Nursing, School of Nursing, College of Pharmacy and Nursing, University of Nizwa, Sultanate of Oman

Abstract:

Introduction:

The use of skin lightening compounds for a cosmetic purpose, usually limited to medical use, has become a worldwide practice (Mahe A. 2016). Skin bleach or skin lightening is a treatment for removing dark spots by using chemicals which reduces melanin in the skin. This has become a usual practice among women because of the perception that skin fairness indicates beauty or high social class (Al Ghamdi, 2010). This study examined the knowledge, attitude, and practices on use of topical bleaching agents among female students in the University. Methods: A descriptive survey design was used to inspect the use of skin lightening agents among 100 female students. Ethical approval was obtained prior to the implementation of the study. Data collection was done using a self-administered questionnaire and SPSS V. 19 was used to analyze the data. Results: The findings of the study revealed the use of topical bleaching agent was very common among female students of the University. The age group between 20 and 25 were the most respondents who practiced skin lightening. The overall knowledge about the use of skin bleaching and its serious side effects was fairly weak. (68%) were unaware that corticosteroids in bleaching agent can cause diseases like diabetes, hypertension and obesity. (40%) of the respondents believed that use of bleaching agents can make them beautiful, fair and more radiant. The frequency of use was quite high where, (63%) used skin bleaching products daily. Conclusion: The study findings showed that the respondents were unaware of the ill effects of bleaching agents. Hence, the necessity to educate young females about the adverse effects of bleaching agents is highly significant.

Key Words: Topical bleaching agents, Knowledge, Attitude, Practices

1. Introduction:

Skin lightening using topical beaching agents has a become a practice among females for decades. It is common among both dark and pale-skinned women around the world because of the perception of having fair skin means beauty and high social class (Al Ghamdi, 2010). A study was conducted to examine the purpose of regular skin bleaching exercises for adults in Africa. The findings revealed that respondents regularly practiced skin bleaching because they want to be attractive enough to capture people's attention, as they have a lighter complexion and are considered a fashion for skin bleaching (Cruz and Mullet (2014). Bleaching creams mainly contains mercury, corticosteroids and hydroquinone (Al Ghamdi, 2010). Numerous studies on the effect of compounds used in lightning creams comprising high levels of mercury can damage the nervous system. Some side effects can be as permanent as stretch marks (Louis, 2010). Skin whitening cream containing topical steroids as a bleaching agent has number of risks associated

with premature ageing of the skin, an increase in skin cancers, high blood pressure, diabetes, and an increase in depression and identity disorders (Cruz and Mullet 2014).

2. Significance and Rationale for the Study

There are few studies that examined the knowledge, attitude, and practice on use of fairness creams which are used locally among females in Oman. It is not only important to identify the actual practice and knowledge of topical bleaching agents among females, but also to make sure they are aware of the adverse health effects of these chemical compounds. Findings of this study can be used as evidence to make university students aware of the dangers of bleaching agents. It enables nurses and student nurses to provide appropriate health education to other females in hospitals and schools. This will increase the awareness of the society about the harmful effects of bleaching agents. The findings of the study can be used to compile information on similar issues and serve as a reference source for future studies. This can also enrich the existing database in use.

3. Methods and Materials:

3.1 Design:

A quantitative descriptive survey design was used to determine the knowledge, attitude and practices regarding the use of chemical products among female students in the University.

3.2 Sample and setting

This study involved 100 female students who were studying in four different colleges in the University. They were the target population of the study as they were more concerned on their beauty and fairness of skin and tend to use a lot of topical creams. A simple random sampling technique was used based on the inclusion and exclusion criteria to select the samples.

3.3 Ethical approval

The ethical approval to conduct the study was obtained from the Dean, College of Pharmacy and Nursing. Permission letter to conduct the study was send personally to the Deans of respective colleges in the University. Apart from this, the participants were given an information sheet in English to read and those who agreed were asked to sign informed consent prior to the conduct of the study. The participants had the freedom to join and withdraw from the study at any time. They were also informed that their data is kept confidential and no personal data will be reported or presented in the future for any other use.

3.4 Data collection

The information regarding the participants were obtained through a survey using quantitative approach. The participant's demographic data was collected in the first section by keeping their anonymity. Followed by knowledge on bleaching agents were assessed by using "true or false" items in which those who scored more than 75% were considered as having good knowledge. Attitude on the use of skin lightening creams was calculated by a 5 point Likert scale with (strongly agree/ agree/ neutral/ disagree/ strongly disagree) and those who scored higher grades were considered as having good attitude toward the use of bleaching agents and the practices were assessed using descriptive type of questions and scoring was done based on the response given by the respondents.

3.5 Data analysis

The collected data was calculated using frequency and percentage of responses on each item of the questionnaire.

4. Results:

The participants in the study were (100%) females in which, majority (40%) were in the age group of 23-25 years, whereas (39%) in the age group of 20 -22 years, (18%) below the age 20 years and very few (3%) more than 25 years of age. Most participants (72%) were Bachelors degree, while (28%) were Diploma students. Majority of them (29%) were in 5th year, (25%) of them were in 4th year, (16%) were in 3rd year, (17%) were in year 2 and (13%) were in first year. Regarding the sources of information, most of them received information from friends and family (37%) and (38%) respectively. (14%) were from internet and very few (3% and 4%) from healthcare professionals and television.

4.1. Demographic Data of the Respondents

Table 4.1.1 Distribution of respondents according to descriptive and professional characteristics.

N=100

Characteristics	n	%
Age in years		
<20	18	18
20-22	39	39
23-25	40	40
>25	3	3
Educational status		
Bachelor degree	72	72
Diploma	28	28
Year of study		
Year 1	13	13
Year 2	17	17
Year 3	16	16
Year 4	25	25
Year 5	29	29
Sources of knowledge		
Healthcare professional	3	3
Friends	37	37
Family	38	38
Television	4	4
Internet	14	14

4.2 Knowledge on the Use of Bleaching Agents

Figure 4.2.1: Distribution of respondents according to their knowledge on the use of bleaching agents

N=100

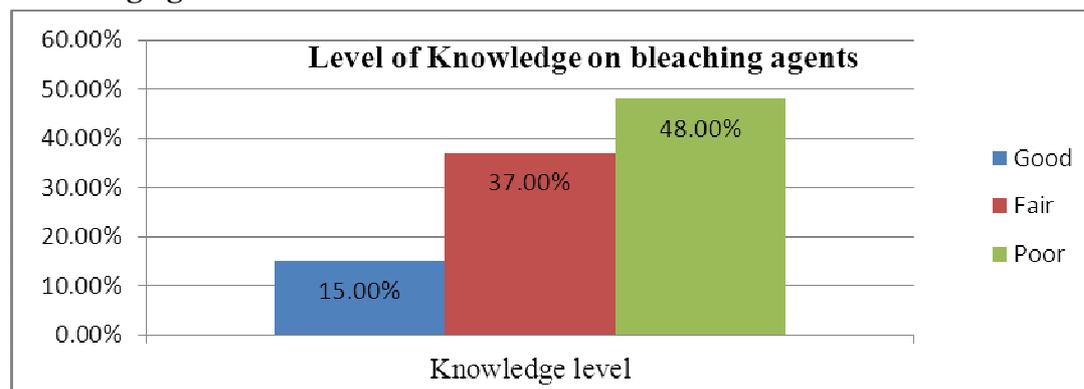


Figure 4.2.1 shows the criteria set by the researcher, good level of knowledge was portrayed by only 15%, fair knowledge by 37%, whereas the majority, 48% had poor knowledge on the use of bleaching agents.

4.3 Attitude on the Use of Bleaching Agents

Figure 4.3.1: Distribution of respondents according to their Attitude on the use of bleaching agents. N=100

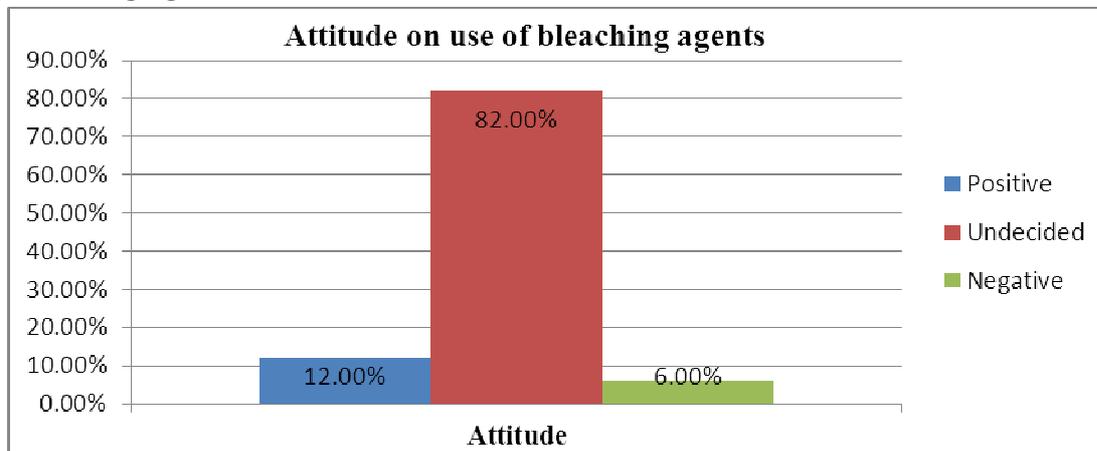


Figure 4.3.1 shows out of 100 respondents, only 12% had positive attitude towards the use of bleaching agents, most of them 82% had neutral attitude, and very few 6% had negative attitude towards the use of bleaching agents.

4.4 Practices on the use of Topical Bleaching Agents

4.4.1 Distribution of respondents according to the type of bleaching agents used

The respondents used different types of bleaching agents such as (27%) Faiza beauty cream, (13%) Tibet Fairness, (7%) YC 001 Whitening cream, (6%) Fair and lovely, and Mixed of Whitening creams. Very few (1%) of respondents used YC fade out cream. On the other hand, majority of the respondents 40% used other types of beaching agent such as forever whitening cream, Voox DD cream, Lora, Beesline skin whitening, and Olay whitening cream.

4.4.2 Distribution of respondents according to the frequency of bleaching agent used

More than half of the respondents (63%) applied bleaching agents once a day. Around 30% of respondents applied twice a day. Very few (7%) of them applied bleaching agent once in a week.

4.4.3 Distribution of respondents according to the duration of bleaching agent used

More than half of the respondents (74%) used agents < 1 year while, 21% used bleaching agent between 1 and 2 years, very few 5% of them used bleaching agent between 3 and 4 years, whereas none of the respondents used bleaching agents >5years.

4.4.4 Distribution of respondents according to the mixing of different types of bleaching agents

Very few number of the respondents (18%) mixed different types of bleaching agents, for example, they mixed Movit cream with Faiza beauty cream, fair and lovely with Garnier whitening cream, and mix of whitening creams from pharmacy while, most of them 82% did not mix any bleaching agents.

4.4.5 Distribution of Respondents according to the part of the body they applied the bleaching agent

Out of 100 respondents, majority (72%) of the respondents applied the bleaching agent on their face only, (13%) of the respondents applied on the face and neck, (12%) applied on the face,

neck, and hands, whereas 5% applied all over the body. Very few 1% of respondents applied bleaching agent on the other body parts like feet, knees, thighs and lower back.

5. Discussion

The overall knowledge level of the respondents in the university was poor as it was observed from the study findings. Only (15%) of them had good knowledge about the application of skin fairness agents. Regarding the attitude level, majority (82%) were having neutral attitude and the use of skin lightening creams were a common practice among the students.

6. Research Conclusions and Recommendations

It is unfortunate that many people are unaware of the side effects of bleaching agents and the use of such products increases. In order to reduce the practice on harmful use of skin fairness creams, strict control measures have to be taken on a multidimensional front. Awareness programs on the side effects of fairness products can be disseminated through health programs, and lectures among the female students in the University. More educational programs could be intended for the general public through mass media. Government can control the access of bleaching products to the country by putting strict regulations.

7. Research Implications

The excessive use of bleaching agents can cause variety diseases like skin cancers, high blood pressure, diabetes, and an increase in depression and identity disorders. This alarm the importance of educating the women about the safer use of these agents.

8. Limitations of the Study

Sample size of the study was limited to only one University. Hence, the study results could not be generalized to a larger population in Oman. There was no similar study conducted in Oman about the use of bleaching agents to compare the present study findings. During the data collection period, some of the respondents were not able to remember the name and contents of the creams which may alter the study findings also.

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Role of Power and Fate in Vijay Tendulkar's *Ghashiram Kotwal*

Dr. Santosh S Chouthaiwale

Associate Professor
Department of English
Indraraj College, Sillod, Aurangabad.

Ketaki Milind Chaudhari

Research Scholar
Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

Abstract:

The present study aims to focus on social issues like power politics and women's issues. In the past times, human beings struggle to become superior to others. The ruling party or society has the power to rule on others. In a social hierarchy, they urge to achieve more successful positions than others. In social pyramid hinders the integrity of society. In drama, Ghashiram Kotwal's character is an over-ambitious man. For power and position, he is ready to risk anything in his life. He makes his own daughter a ladder to get power and position. In the power game between Nana and Ghashriam, it is Gauri, a woman, who has to suffer. Tendulkar in his play is perhaps trying to highlight the fact that in Indian society it is generally a woman who is oppressed and marginalised.

Key Words: Marginalisation, Game of power, Hierarchy, Human relationship, Polotics.

Introduction:

Vijay Dhondopant Tendulkar was born in a Brahmin family in Kolhapur. He wrote his first story when he was only six years old. His father ran a small publishing house along with his job. Vijay Tendulkar got a supportive atmosphere of reading and writing at home. He was fond of watching plays. He wrote, directed and acted in his first play at the age of eleven. In the early days of his writing, he worked in Newspaper. Vijay Tendulkar is a playwright, short story writer, novelist, essay writer, editor, translator and columnist. He had a versatile personality. In the world of literature, he is having a special place as a dramatist. Vijay Tendulkar's writing silences the vices in society. He composed great works which became immortal forever. Vijay Tendulkar wrote 27 plays and 25 one-act -plays in his lifetime. Many of these have the status of classics today. Apart from this, his literary legacy is 2 novels, 5 short story collections, 16 children's plays, 5 literary essays and an autobiography.

Ghashiram Kotwal:

Ghashiram Kotwal is a play written by Vijay Tendulkar in which he handled various social issues. His play Ghashiram Kotwal has been performed more than six thousand times. No other Indian drama has been watched so many times as this drama. His other plays are also very famous and translated into other languages. His works always sought respect from viewers and readers and critics. His plays like 'Ardha Satya', 'Nishant' and 'Akrosh' are adopted as Hindi films. He wrote on issues like corruption, poverty, and women's problems. Sometimes it happens that literature written in olden times lacks references to the changing times. But his all plays are relevant even today. This fact is enough to prove that Vijay Tendulkar was an amazing penman whose pen was free from the constraints of time.

Vijay Tendulkar throws light on various social issues in his all works of literature. He fearlessly wrote about all evils in society. When his play Sakharam Binder was presented on stage, there was a big controversy. People of the contemporary period were not ready to accept the theme of the play. Many people criticized this play by saying that this play is obscene and it can harm Indian marriage institutions and Indian cultural heritage. Despite these allegations, there was a group of people who supports the theme and concept of the play.

Tendulkar's Ghashiram Kotwal play also caught controversy among Brahmins. Ghashiram Kotwal is a play based on the character Ghashiram Kotwal, who was the Kotwal of the Pune region during the time of Peshwa. Brahmins of that time raised their voices against this play as Nana Phadnavis's character has been smeared in this play.

The aim of the paper is to examine the character of Ghashiram, Tendulkar's protagonist Ghashiram is a tragic figure because he falls prey to his strong willpower to become Kotwal. this play has been written against the backdrop of history. It is a satire on the tendency of people how they lose real happiness in their life for power and position. It is a fake ideology to fulfil desires which later prove as useless.

Ghashiram Savaldas is a poor Brahmin. He is from Kanauj but he came to Pune to earn a livelihood with his wife and daughter. He first accepts a job as a servant in Courtesan Gulabi's residence. He always thought to himself that the job he is working with does not suit his capabilities and caste. Nana Phadnavis a politician used to visit Gulabi's house. Once Ghashiram Succeeded to catch the attention of Nana Phadnavis. Ghashiram is overwhelmed with joy and boons a dream of being Kotwal. He plans to please Nana Phadnavis at any cost.

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Ghashiram went to attend a feast arranged by Peshwa in honour of Brahmins. But soldiers put him in jail by charging theft of money. Ghashiram becomes furious at this treatment. He wants to take revenge on these soldiers and Gulabi by securing strong positions. He fiercely says

" I'll come back, I'll come to Poona. I'll show my strength. It will cost you! Your good days are gone!... I'll come back with boar and I'll stay as a devil. I'll make pigs all of you. I'll make this Poona a kingdom of pigs. Then I'll be Ghashiram again, the son of Savaldas once more..."

Ghashiram tried every possible way to enter Poona. He disguises himself as a servant and came there with his daughter Gauri. He sends his own daughter to Nana Phadnavis to quench lust. Nana becomes very happy to see a young and beautiful girl like Gauri. Nana Phadnavis becomes mad after seeing Gauri and makes advances toward her. Ghashiram's plan was successful to deceive Nana. He dreamt about power and position but his own daughter becomes a victim of this power game. Nana enjoys erotic pleasure given by young Gauri whereas he issues the order to make Ghashiram a new Kotwal of the Poona region. Ghashiram says,

" Now he's in my hands... I've given my beloved daughter in the jaws of the wolf"

Ghashiram becomes Kotwal of Poona and starts his work. He starts victimizing people who have insulted and humiliated him. He imprisoned so many people calling them pigs. Inhumanly he tortured people, he harasses and punishes people just on mere suspension. In his era revenues have increased and crimes have decreased. Ghashiram starts to enact laws in Poona. He makes rounds in Poona after 11.00 o'clock. He wants the situation of Poona under his control. He said to himself that his all wishes have been fulfilled now he should think about the marriage of his beloved daughter Gauri.

Nana Phadnavis who was having an illicit relationship with Gauri enjoyed her physical beauty. But when Nana comes to know about her pregnancy, he murdered Gauri. Gauri was just a toy for Nana Phadnavis, who plays with her until she satisfies his carnal desires. Soon Nana found a new girl who pleases him by giving him sexual favours. Ghashiram becomes furious when he comes to know about the murder of his beloved daughter. He approached Nana and asks him reasons why he murders his daughter. Nana calms down Ghashiram by praising his work as Kotwal. Ghashiram becomes very selfish and blind. He sold his daughter to Nana just to gain the power and the position of Kotwal. He easily forgets about the murder of his beloved daughter just for the sake of Kotwal's position. He decides to forget the past and concentrate on his duty. Inwardly Ghashiram is disturbed because of the murder of Gauri. He starts taking revenge on people. He brutally killed people for small mistakes. Many have died of suffocation because they are detained in overcrowded prisons. Brahmin community in contemporary Poona was fed up with the treatment given by Ghashiram Kotwal to people. There were several complaints about Ghashiram Kotwal to Nana Phadnavis and they all demands to behead Ghashiram Kotwal. They want Nana Phadnavis to issue an order to behead Ghashiram. Nana Phadnavis is a very careless man and ruler he gives orders to kill Nana. He says, "Use a thorn to take out a thorn". The Brahmin mob becomes furious and they beat and shave his head. They tie him to the leg of an elephant and pelts stones at him. This violent attack reminds Ghashiram of all the sufferings of his little daughter. He further says to himself that he should be punished because he ruined his beloved daughter's life just for power and position. The play ends with Nana's epilogue that "a threat to the great city of Poona has ended today with the death of Ghashiram who plagued all the people".

Conclusion:

Thus we can say that Ghashiram Kotwal is an antihero. The play is a fine example that how people become inhuman for power and lust. Nana Phadnavis is lustful and destroys the lives of many young girls and Ghashiram is overambitious. He is hungry for money and power. Ghashiram is shown as a beast who destroys the life of his own daughter by selling her to people like Nana Phadnavis.

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Information Need of the Rural Farmers A Study from Nevasa, Ahmednagar (MS): A Survey

Mr. Namdeo Rakhmaji Kharjule
Librarian

Abasaheb Kakade Arts, College Bodhegaon. Tal-Nevasa Dist. A'Nagar

Abstract:

Though many programmes are arranged in agriculture extension, most of farmers not get relevant information for agriculture activities. The present paper attempts to find out the information need of the persons engaged in activities particularly farmer's community in the rural areas of Nevasa tehsil. The study is conducted through survey method. Semi structured questionnaire is used for collecting data. Access to reliable timely and relevant information can help significantly and many ways to reduce uncertainty to reduce farmers risk and uncertainty, empowering them to make good decisions. Study reveals that 57 percent farmers required daily information for various agriculture activities.

Key word: - Information, Information need, rural farmers

Introduction:

Most of population of India engaged in agriculture sector. Roughly 80% of population live in rural areas and depends on agriculture for their livelihood. Since the green revolution in the 1970's and 1980's agricultural extension focus of agricultural production. Several challenges confront Indian farmers. These include limited land and water availability, which is further exacerbated by degradation of natural resources, climate changes. However to realize the benefit of higher prices, knowing new variety of crops, information about new cultivation techniques fertilizers and pesticides farmers need wider range of information

Information reduces uncertainty. It is that which assist in decision making. "Information is a symbol or a set of symbol which has the potential for meaning". Information need includes information demands (or requirements) and information wants (or desires). There are individuals who can articulate demands and there are those who have a desire for information.

Maharashtra:

Maharashtra is one of the most industrialized state of India, it occupies in western and central part of country and extends over the sahyadri mountains a vast stretch of 720 kilometres of the Arabian sea coast providing it a beautiful backdrop. The state extends between the latitudes 15.6° N and 22.1° N and longitudes 72.6° E and 80.9° E. The unique feature of this region are a series of crowning plateau. Lying between the Arabian Sea, and the sahyadri village, kokan is narrow coastal lowland just 50 km wide and within an elevation below 200mtrs. The third important region is the satpura hills along the northern border and the Bhamragad-Chiroli-Gaikhuri on the eastern border from physical barrier preventing easy movement. Maharashtra state is made up of 35 districts which are grouped in to six divisions i.e. Amravati, Aurangabad, Konkan, Nashik, Nagpur and Pune division.

Maharashtra is a industrial powerhouse of India. The state is major producer of oil seeds, groundnuts, sunflower, soybean etc. The state also produces cash crops like cotton, sugarcane, turmeric and vegetables. The state also has a vast area under horticulture.

Ahmednagar:

Ahmednagar district recognized by the name of Malik Ahmed chief founder of Nizamshah. Ahmednagar is the largest district of Maharashtra state with geographical area of 17418 km. which is 5.66 % of area of Maharashtra state, out of total area 391.559 km. urban area and remaining 16,656.5 sq.km. is rural area. Ahmednagar is centrally located in western Maharashtra. In Ahmednagar district there were 13 talukas and 1581 villages. Farming is main activity of the people in Ahmednagar district. Out of total workers 75.42 % people working in farming as farmers agriculture labour, animal husbandry and allied agriculture activities. Agriculture in the district mainly depends upon rains, wells and dams but the rainfall is district in inconsistent and irregular. Main crops of Ahmednagar districts are cereals, pulses, sugarcane, cotton and groundnut and in some percent fruits and vegetables also.

Nevasa Tehsil:

Nevasa tehsil is a taluka in Ahmednagar district. Total area of Nevasa tehsil is 1343.43 sq.km. Out of which 1223.91 sq.km. i.e. 91.1 % under agriculture, 1.1 % under forest and other area is 7.8 %.

There are around 120 villages in Nevasa taluka. Population of Nevasa in 2020 is 429395 Literate people are 243,397 out of 137,681 are male and 105,716 are female

Objective of Study:

1. To find the information need of the rural farmers.
2. To find the nature and type of information required by farmers.
3. To find the source of information used by the farmers.
4. To examine the channels of information communication and sources of information Dependence used by the farmers.

Review of related literature:

Information need is also vary from village to village, as per development of rural area the need of information is also changes.

Byamugisha et al. (2009) conducted study on information seeking and use of urban farmers in Uganda found that the information needs of the urban farmers in study area seemed to be as varied as the farming activities and also appeared to vary from one urban farmer to another. Meitei & Devi (2009) conducted study on Farmers information needs in rural Manipur: an assessment found that ICT based agriculture information support system is very much important for the disseminations of agriculture information and technological knowhow by rural farming community. Babu, Glendenning & others (2011) study Farmers information needs and search behavior: Case study in Tamil Nadu, India reveals that The value of information has increased considerably as the agricultural system in developing countries become knowledge intensive. Access and use of current information is critical for not only financial success of farmers but to support sustainable agricultural system. Bacchav (2012) conclude his study Information Needs of the Rural Farmers : A Study from Maharashtra, India: A Survey that Potential of information in affecting the agriculture sector as a whole. The study has reported there is growing awareness importance of information and its use among the farming community. Farmers must be able to get information delivered to them at a time and place of their choosing and it will be beneficial to farmers to realize productivity gains from the adoption of new farming practices and actions to mitigate losses.

Bernard, Dulle (2014) study Assessment of information needs of rice farmers in Tanzania: A case study of Kilombero district, Morogoro states that the rice farmers in kilombero district needs various types of information for rice farming, and they use a number of information sources for access to their required information. Although they get assistance from, fellow farmers, parents, extension officers, and personal experience, their level in using modern technologies in accessing agricultural information are not at a satisfactory level.

Methodology:

This study was conducted during January 2021 in Villages of Nevasa tehsil with self-financial support. The study surveyed 100 farmers in the selected villages of Nevasa tehsil. It assessed farmers information need and collect information of sources they uses to access information. Questionnaire was used as a data collection tool, for the fulfilling the objectives of the study. Both closed and open ended questions were included in the questionnaire. The questionnaire was prepared in Marathi language for respondents could easily understands items mentioned in the questionnaire. Convince sampling method is use to select villages of Nevasa tehsil. Total 110 questionnaires randomly distributed to farmers. The investigator collected 100 questionnaires from respondents.

Data Analysis :

Table No. 1

Sr.No.	Item	Response	Percentage
01	Age in Years		
	18-28	15	15%
	29-39	21	21%
	40-50	38	38%
	50-above	26	26%
02	Education Status		
	Illiterate	27	27%
	Primary	29	29%
	Secondary/Higher Secondary	33	33%
	Graduate & P.G.	11	11%
03	Periodicity of Farming		
	00-05	24	24%
	06-10	21	21%
	11-15	36	36%
	16-20	19	19%

Table No.1 shows that most percentage of farmers (38%) are in age groups 40-50 ,the age group 50 – above ,29-39 below that lowest percentage(15%) of farmers age group is 18-28. Education status of farmers shows that most percentage of farmers (33%) complete their secondary or higher secondary education while primary education completed by 29%, and 27% farmers are illiterate. Only 11% farmers completed their graduation and post-graduation. Periodicity of farming shows that most percentage (36%) of farmers doing their farming from 11-15 years while lowest percentage (19%) of farmers from year 16-20 years.

Interest in Farming

Table No.2

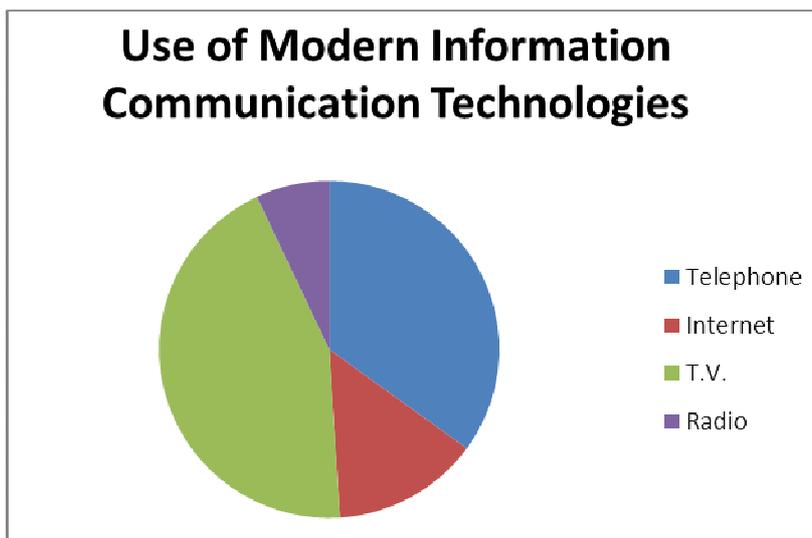
Sr.No.	Response Type	Response	Percentage
01	Yes	68	68%
02	No	23	23%
03	Neutral	09	09%

Table 2 shows that 68% farmers do farming with their own interest while 23% farmers are not interested in farming, they only engage because not available any other way of income.

Use of Modern Information Communication Technologies

Table No.3

Sr.No.	Item	Response	Percentage
01	Telephone	35	35%
02	Internet	14	14%
03	T.V.	44	44%
04	Radio	07	07%



Result shows that majority of farmers (44%) use T.V. as source and medium for communication of information .While 35% farmers uses telephone for communication of information.

Availability of Library in own Village

Table No.4

Sr.No.	Item	Frequency	Percentage
01	Yes	50	50%
02	No	50	50%

Table shows that 50% villages having their own libraries while 50% villages are not having that facility.

Use of Library by Farmers on regular basis

Table No.5

Sr.No.	Item	Frequency	Percentage
01	Yes	30	30%
02	No	70	70%

Table shows that only 30% farmers uses library on regular basis to search information regarding farming.

Sources of information used by Farmers

Table No.06

Sr.No.	Item	Frequency	Percentage
01	Newspaper	37	37%
02	Govt.Offices	16	16%
03	Radio	01	01%
04	Library	08	08%
05	Agri-Exhibition	08	08%
06	Help-Line	03	03%
07	Internet	02	02%
08	Agriculture Expert	12	12%
09	T.V.	12	12%

Percentage more than 100 because multiple choice questions.

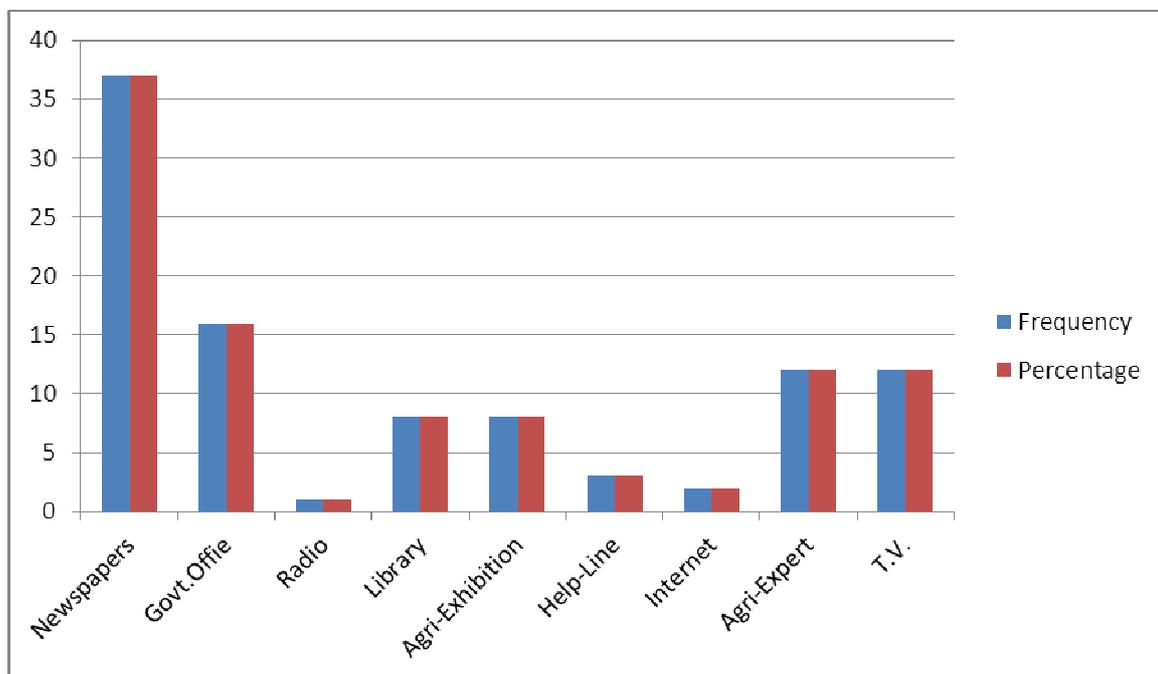


Table shows that majority of farmers acquired information through newspapers (37%), which is followed by govt.office of agriculture (16%), use of internet by farmers is very much low (2%)

Need for using of Information

Table No.7

Sr.No.	Item	Frequency	Percentage
01	Seed	35	35
02	Pesticides	32	32
03	New Farming Method	19	19
4	Weedicides	14	14

Percentage more than 100 because multiple choice questions.

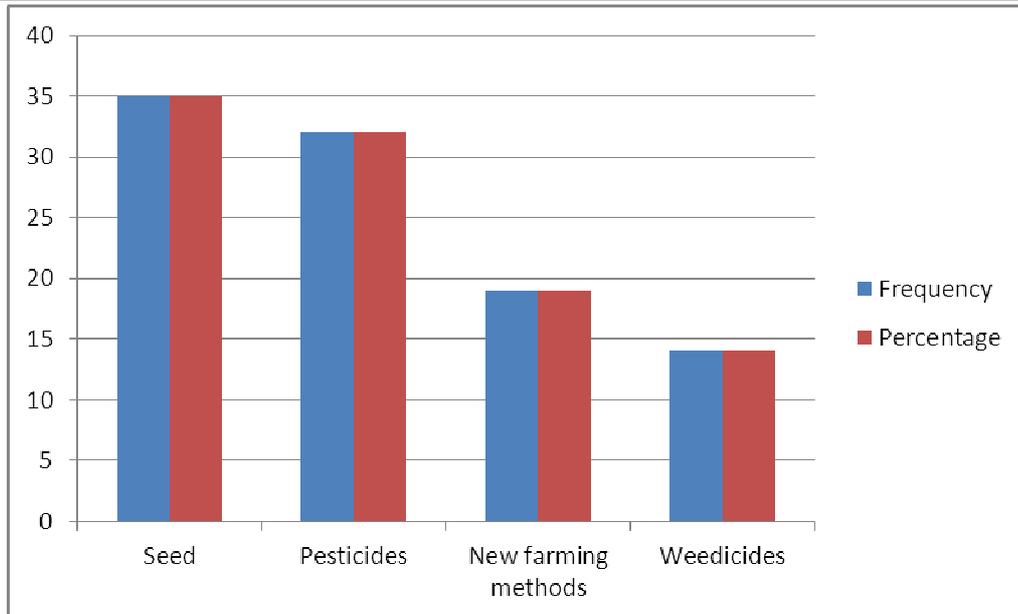


Table shows that majority of farmers need information for seed which produce more crops 35% followed by information regarding pesticides 32%.

Use of Information for more production

Sr.No.	Response Type	Responses	Percentage
01	Yes	57	57%
02	No	43	43%

57% farmers fill that information is useful for more production while 43% farmers does not fill importance of information for production of more crops.

Conclusion:

Information is vital source in agricultural production. The researcher found that farmers use T.V. (44%) for getting advanced knowledge about various agriculture activities. As T.V.is audio-visual medium it's having more impact than other media, which is followed by telephone (35%), as various agencies started SMS facility and toll free number facility for solving queries of farmers. Research shows that about 68% farmers doing farming with their own interest, means if Government or NGO create infrastructure of information facility so that the farmers will adopt the facility. Research shows that only 50% villages having their own libraries and 30% farmers use library facility on regular basis. It is need of today provide 100% library facility for each and every village and promote the farmers for using more library facility. Newspaper is the most important communication channel (37%) in village because it's cheapest and easy available and its local language. Govt. officers of Agriculture Department play an important role ,as 16% people say that they using them as a source of information, but it is essential to government officers must play prominent role to provide useful information to farmers. Only 2% people uses internet facilities, as villages do not have ICT infrastructure as well compare to cities. Research shows that farmers need information regarding seed and pesticides (35% and 32% respectively) whereas 19% of farmers wants to adopt new farming techniques .Farmers must be informed aggressively about new farming method for increasing the crop yield.

From the present investigation it is found that only 57% farmers' use information for increasing production of different crops and 43% farmers are not aware about how to access the

information or they not access information. Only 50% villages are having library facilities and 30% farmers are using this facility. The Books related to agriculture are not sufficient in library. Only 2% of farmers can access an internet facility which is not adequate.

Recommendations:

1. Farmers are suggested to use information resources in order to increase the production and yield of crops with this they are exposed to new advance technology of farming and they are less depends on traditional farming.
2. Govt.officers, Librarians should arrange information literacy programme for farmers.
3. Public media should create awareness among farmers for using information resources.
4. Most farmers are illiterate, adult education could be organized.
5. ICT infrastructure should be developed in villages.
6. Public library facility with adequate resources should be strengthening in villages.

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Chutney : A Chilling Tale of Subversion

Dr. Sunita Kulkarni

Associate Professor, Dept of English,
L.J.N.J. Mahila Mahavidyalaya VileParle, Mumbai.

Abstract:

The digital revolution has resulted in various mediums and forms of entertainment one could not have imagined some years before. Several streaming channels and Over the Top platforms have made it possible to bring entertainment to our homes that is financially viable and does not require any technical set up apart from a smartphone and a phone application. Due to the easy availability of internet service, connectivity and entertainment have both evolved significantly. While some OTT platforms and mobile phone applications need paid subscription, some others are free. One popular application is YouTube and contains videos on every subject imaginable such as study topics, cooking, travel and entertainment. It enables individuals to create their own content, showcase it as well as earn revenue from it.

In recent times, the most popular form of entertainment on YouTube has been the Short Film. Several film companies, famous actors and directors have ventured into making short films. Short films are short, have a compact plot and deal with subject matter pertaining to day issues relatable to common man. The present paper wishes to explore the short film Chutney directed by Jyoti Kapur Das, co-written, produced and acted in by Tisca Chopra that depicts how appearances can be deceptive and what strategies are used by a homemaker to save her marriage in a patriarchal set up.

Key Words: Entertainment, Digital Revolution, YouTube, Short Films, strategies, Patriarchy.

The digital revolution and ease of accessibility of internet service has brought in many novel means of entertainment. Movie applications available on smartphones, phone applications, OTT platforms and YouTube provide entertainment throughout the day. One popular type of entertainment on YouTube is the Short Film. Many renowned actors, directors and theatre personalities have now ventured into the acting and making of short films. This paper intends to explore the Short Film Chutney directed by Jyoti Kapur Das, co-written and produced by Tisca Chopra with Chopra, Adil Hussain and Rasika Duggal playing the major characters. The paper will briefly discuss the status of entertainment in the digital space, YouTube as a provider of information and entertainment and the rise and spread of short films before venturing into the analysis of Chutney. The paper wishes to explore the short film through a thematic and socio-cultural perspective and analyze the characters, their inter-relationships, the crisis and how the situation is handled by the female protagonist.

Short Films are short. Period. Just as the long-winded novels of yesteryear gave way to compact and terse short stories, long films being a luxury for the busy populace today, have made way for short films, which are more welcome due to time constraints in the modern age and their convenient brevity. As YouTube is available on multiple mobile devices, one can watch short films anywhere in a single sitting. The very fact that they are brief, compels the films to make their impact felt in the limited time and many have an element of surprise at the end. Short films are approximately of 12 to 25 minutes duration. Many famous short stories have been successfully transformed into short films. Short films encompass all genres such as romance,

mystery, horror, humour, human interest and their subject matter contains themes of marriage, extramarital affairs, interpersonal relationships, as well as all the mundane and strange events people encounter in their lives.

There are several elements in favour of short films as opposed to regular feature films showcased in theatres. Firstly, one does not need to go to a theatre, buy an expensive ticket and a more expensive snack, in order to watch stars present the same old formula stories with unbelievable plots and larger than life characters that one finds difficult to identify with. In contrast, short films are available on mobile devices, do not take much time and deal with relatable situations and characters. Short films have a large fan following, a large viewership and most film festivals now have a category especially dedicated to short films.

There is a larger number of women producing or directing short films than regular full length films. The motion picture industry, be it Bollywood or regional, is largely patriarchal and feudal in nature, with nepotism thrown in in large measure. This makes it almost impossible for an outsider, particularly a woman, to produce or direct a full-length film. This is obvious from the gender disparity of male and female producers and directors in the industry. However, Indie productions and short films give women the opportunity to try their hand at writing and directing a film as well as explore subject matter of their choice.

Chutney is a short film 16 odd minutes long that was released by LargeShortFilms, and presents creative storytelling as a subversive device used by a homemaker to counter her husband's infidelity. As Jyoti Kapur Das mentions, the film was inspired by Tisca Chopra's performance of a monologue from a Bhishm Sahnii story. The film has crossed 120 million views and has received a Filmfare award in Comedy in 2017.

Vanita, played by Tisca Chopra, is a homemaker, originally from Ghaziabad, now living in Model Town in Delhi. Her countrified manner, her plain looks, dull clothes, and lack of glamour make her the butt of ridicule in the colony. Caught in an unsavory situation where she has to entertain the young and pretty love interest of her flirtatious husband, she needs to use some strategy which would enable her to drive the rival away. Serving her guest some pakoras with a tasty spicy green chutney, she weaves a shocking story around the chutney she has made using homegrown ingredients. She narrates a story that has unexpected twists and revelations with a calm demeanor that hides its sinister underbelly. It is a seemingly innocuous narrative of extramarital affair, betrayal, murder, and the subsequent disposal of the body.

The story is mainly unravelled during a conversation between the two main female characters, one a seemingly simple, shy and buck-toothed housewife Vanita (Tisca Chopra), and the other the unnamed Rasika Duggal who is involved in an affair with Vanita's husband Viriji (Adil Hussain). The erring pair underestimate Vanita's vigilance but she is very quick on the uptake, possessive and territorial about her husband and in a very subtle manner, but with unmistakable warning, is successful in putting the young woman firmly in place. Vanita's storytelling is a study in understatement, where without any outward show of hostility, jealousy or anger at the young woman, a potentially dangerous situation is managed subtly and the crisis in her marriage averted.

The film opens to a social gathering in Model Town in or on the outskirts of Delhi with men socializing over food and drink and women gossiping and backbiting. The affair between Viriji and Rasika is discussed avidly by men with the man feeling proud at the conquest of a pretty, young woman. Similarly, women including Rasika gossip about Vanita and her dealings

at the Ladies' Association. Finding her husband and Rasika flirting at the bar, Vanita decides to take matters in her own hands and understands the purpose behind Rasika's gushing friendliness to her. One gets the feeling that she is not as negligible or naive as others think her to be. She invites the younger woman home as she has praised her cooking and wanted to learn some recipes from her. The younger woman's not so subtle innuendoes about her being a great cook, but not much else and her false compliments are not lost on Vanita who has her plans ready. Rasika, complacent due to her youth, beauty, and her affair with Vanita's husband, makes snide remarks about the older woman's age and her homely face and figure.

The two women are a complete contrast to each other. Vanita, past her prime in age, neither good-looking nor vivacious, is dressed in dowdy dull-coloured clothes, and sits on a charpai on the terrace, surrounded by red chilies kept to dry and is busy with the mundane task of mending clothes, while Rasika, young, bubbly, beautiful and coquettish, is well dressed and made up. All the circumstances seem to be in the younger woman's favour, with Vanita seeming the poor unattractive middle aged longsuffering wife from rural Ghaziabad who has yet to acquire the polish of Delhi. Serving the younger woman pakoras with homemade green chutney, Vanita starts speaking about her being from Ghaziabad where nothing is ever wasted. Ghaziabad has an unsavoury reputation where crime is concerned. The narrative then takes a bizarre turn and touches upon a tale of unrequited longings, promiscuity, murder, burying a body and planting a kitchen garden on the burial site. Vanita's kitchen garden supplies her with the best homegrown ingredients for her green chutney as she claims that dead buried bodies have added nutrition to the soil and taste to the ingredients. The unassuming, drab homemaker calmly describing a murder and burial as a matter of course, as if it is a mundane, commonplace occurrence gives Rasika and the audience a decidedly creepy feeling. By the time the horrible tale is over, the previously triumphant and cocksure Rasika is shaken and uneasy, while the rude servant Munna, who is listening to the tale is disturbed as well.

The film though short, has perfected its characterization, ambience, language, and dialect as well as the clothing in terms of the characters, their social status, and their socio-cultural background. Thus, we have in Model Town, a typical North Indian patriarchal community, where an affair with a pretty woman raises a man's status and inflates his ego, where promiscuity is a norm rather than an aberration, where devotion and love are punished with death and where homely women have to practice subterfuge in order to hold their fragile marriage together. It is a community where men drink, rule their households and have multiple sex partners and a society where a woman's social worth is based on her beauty, glamour and availability. There is no place in such a society for women who are plain and dowdy, even though they are intelligent and shrewd. This society only recognizes and approves men's desires, not women's desires. Vanita is shown to be attracted to her younger brother in law Vicky, but he ignores her completely and has an affair with the househelp Bhola's beautiful young wife who is described as गोरी चिट्ठी मलाई जैसी. In such a society governed by patriarchal norms and parameters of feminine beauty and desirability, women like Vanita would necessarily have to evolve a set of strategies to destroy the competition and to save their marriage. Vanita is not young, beautiful, nor does she seem to be educated and financially independent. As her marital status is her only sphere of power, influence, and identity, it is certain that she will try her utmost to retain her position. Ironically, Vanita's power comes from patriarchy, from being a great cook and homemaker, from her being a meek and tolerant wife, always supporting and assisting her

husband, be it inviting guests home to dinner, or inviting his love interest for tea or burying a body. One is awed at the way she exacts her revenge on Vicky for ignoring her, by cleverly contriving a situation where Bhola comes home earlier than usual and finds his wife and Vicky in compromising circumstances. Bhola looks like a stricken dog, feeling betrayed but unable to do anything about it as he is completely under Viriji's control. At night, there is an altercation between Vicky and Bhola, where Bhola is killed by Vicky. It is Vanita, cool and collected who assumes leadership, burns Bhola's clothes and has his body buried deep underground. She then plants her kitchen garden over the burial site to cover it up.

There is a definite thread of promiscuity and longing running through the narrative as well as a macabre connection between food and murder. Vanita calmly and casually tells Rasika that in Ghaziabad, where she hails from, nothing is ever wasted, whether it is dead bodies, animal or human, or any other trash (बेकार िीज) implying Rasika's possible fate if she continues her involvement with Viriji. The implied warning or threat and the person delivering it is such a contrast, it is eerie. Vanita, eminently hospitable, friendly, serving her guest pakoras, chutney, cold drink as well as a threat is more effective than any gangster toting a gun.

Love is considered a bad thing according to Vanita who finds instances of lust and infidelity easier to accept. As she tells Rasika, she knows her husband is attractive and attracts devotion in animals and people alike. However, those devoted to him or loved by him have a tendency to die an untimely and violent death. Examples are Jackie a dog they had, who, excited to see Viriji home went out to greet him and was crushed to death by his car. Bhola, their earlier househelp was equally devoted to Viriji and was killed by Vicky, Viriji's brother. Viriji, used to love and devotion from others, does not seem to feel much, as he has already forgotten Jackie and has helped bury Bhola on his wife's instructions.

Storytelling is used in the film by Vanita as a subversive device to save her marriage. Subversion is defined as, 'intending to overthrow, destroy or undermine an established or existing system or a set of beliefs' and subvert is defined as, 'to pervert or corrupt by an undermining of morals, allegiance or faith's by Merriam-Webster. Subversion has been used as a device of protest by women through their writing and narratives to counter and challenge patriarchy and hegemony.

Indian society is largely patriarchal, with most financial resources and decision-making in men's control, leaving women at their mercy. The dominant and powerful group controls all societal institutions and history as well as gender dynamics. This inequality suppresses women's voice, experiences as well as their narratives and they need to evolve novel ways of expression and assertion. Herstory is a means that enables women to present any event or experience from a feminist perspective empowering women. In the context of the film under consideration in the present paper, the protagonist Vanita uses her imagination, creativity, and storytelling in a masterly manner by taking power in her own hands and saving her marriage.

To sum up, there are moments when one is convinced that the chilling story about Bhola's murder and his body supplying nutrition to Vanita's kitchen garden is true and that the unassuming, serene lady is capable of a great presence of mind, giving clear instructions to her husband about the disposal of the body and one is shocked and horrified. But when one thinks about Vanita's married life to such a husband and the stratagems she may have had to practice to keep her marriage intact, one can understand her cleverness and desperation at getting rid of the competition without any confrontation or without once raising her voice. The message clearly

goes through that she will not be belittled, insulted and taken for a fool by Rasika anymore as she has implicitly been warned that anyone who loves Vanita's husband or is loved by him, has a way of being killed. The narrative also delivers a warning to young upstart beauties not to mess with married men whose wives may not be much to look at but could be as sharp and hot as chillies. Vanita's storytelling tactic is tragic and horrible at the same time, tragic because she needs to practice such strategies to hold on to her marriage with a faithless patriarch and horrible as it so convincing, it might very well be true. When confronted with unscrupulous men and opportunistic young women, a wife needs to protect her territory and interests any way she can. The title of the film is important in several ways, the most obvious being its spiciness, bite, and its omnipresence in Indian cuisine. The title's special significance, however, is that in spite of chutney being a necessary accompaniment, it is never the main or special dish at any meal, never the center of attention. The film's eponymous protagonist Vanita is exactly like that: never the center of attraction, never the centerpiece, always the omnipresent observer and provider of comfort to others, yet, when necessary, she can and will turn the heat on and make her presence felt.

Tisca Chopra, who has co-written and produced the film is a versatile, talented, and beautiful woman. However, she did not hesitate to using prosthetics, dentures and make up that made her look buck-toothed and her complexion sallow as she immerses herself into her role as a middle-aged, plain homemaker, whose husband chases other women. Her dull clothes, unkempt hair and preoccupation with domestic chores helps build her image further. However, it is her dialect, pronunciation and usage that makes her character come across as more genuine. She practices an economy of expression, both in terms of words and facial expressions that makes its impact more genuine and forceful. The other major and minor characters, though making their presence felt and doing complete justice to their roles, are single dimensional with no character arc to speak of and it is Chopra as the pivotal protagonist who holds the plot together and who portrays a multifaceted character.

Adil Hussain plays the role of a typical patriarchal North Indian man of means who rules his household and has a riving eye. He expects his wife to take care of his household and to run it smoothly with help from the servants. Though he has affairs, one believes that he respects his wife's practicality and common sense as she is the guiding spirit behind the disposal of Bhola's body. Upon her instructions, the brothers dig a hole in the courtyard, dig deeper to prevent the smell, and immediately a kitchen garden is planted there to cover the digging.

Rasika Duggal plays the younger love interest of Vanita's husband, a coquette who politely but unmistakably insults Vanita repeatedly by indirectly calling her a fat married aunty, a woman only good enough as a cook and homemaker, focusing only on her outward appearance and underestimating her native Ghaziabad cunning. By the end of Vanita's story, however, the power dynamics have reversed and Rasika is the one who feels threatened as she has been delivered a clear threat.

All the three major characters are versatile, experienced actors who do not require a full-length movie and long dialogues to establish their characters and as the plot is compact and content driven, the film progress smoothly to its momentous conclusion, leaving the audience as bewildered as Rasika does.

The new household help, played by Sumit Gulati beautifully, presents a surly and rude young man, a marked contrast to his predecessor Bhola, spits in the cold drink he is serving and

stares lewdly at Rasika. He loiters around the women till signalled to go and is avidly listening to Vanita's story about Bhola. As the story comes to its gory end and he understands that the family has had no scruples or remorse at the death of a devoted hard-working servant, he too realizes the underlying message and threat intended at Rasika what they do with trash (बेकार िीज). Thus, Vanita solves two problems with one narrative.

The film showcases the concerns, preoccupations, anxieties, and aspirations of ordinary middle-class people caught in the struggle for living, love as well as acceptance and admiration of peers. The film presents a cross-section of Delhi society and analyses them critically: their obsession with maintaining social status, the love affairs, the amounts donated to charities and the new health-conscious generation fond of organic food. It also presents the Delhi people's bias, jibes and looking down upon People from Ghaziabad whom they consider outsiders. The film satirizes upper class society, their supposedly ordinary and moral behaviour and also shows the other side that is so frightening and dark, but of which we see only glimpses at times. But below the veneer of civilization and culture, are the primitive instincts of self-preservation, territorial and possessive nature, and a sheer disregard for others' feelings. Kudos to the creators and actors for producing such a masterpiece in understatement.

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Utilization of Social Media Applications by Librarians for Library Services with Special Reference to Telegram App

Mr. Kishor Manikrao Waghmare

Librarian

Anandibai Raorane Arts, Commerce and Science College,
Tal. Vaibhavwadi, Dist. Sindhudurg, Maharashtra, India.

Abstract:

This paper mainly focused on the latest development in the area of library science where the need of different instant messaging apps is playing a vital role in dissemination of information to the user. Present day everyone is connected with each other by means of various instant messaging app like messenger, WhatsApp, Twitter etc. Telegram app is the new technology offering academic libraries the opportunity to reach out to the user of the library.

Introduction:

Firstly we have to use SMS and MMS to message people. But nowadays different instant messaging applications like Whatapps, Line, Hike, Snapchat, Telegram etc. are there. Instant messaging apps are playing an important role in disseminating information in seconds. Librarians should know how to provide better services to its users using these apps. To disseminate information in electronic format, the librarian has to see that library users have enough storage in his/her mobile. But it does not mean that a librarian cannot satisfy the information needs of the user. Answer to the problem is the Telegram app.

Some instant messaging app platforms in India:

Telegram:

Telegram is a post-Snowden mobile messaging app for security-conscious users. Telegram emphasizes fast encrypted chat messaging using client-server encryption for regular chat. Stable chat mode provides end-to-end encryption and makes it easier for you and your intended recipients to read. You can also set the message to self-destruct. With Telegram, you can share videos and reports, and join group chats with up to 200 users.

WhatsApp:

All of us know WhatsApp. After all, it's the most famous messenger app in the world. It's packed with features, updated regularly, and basically works well with all other chat apps. It integrates with voice and video chat, text messaging, and group chat to support multimedia features such as GIF and video. Reliable, friendly and successful. This is the moral triumvirate of the chat app. Best of all, it's free without in-app purchases.

Snapchat:

Snapchat is a messenger app. It provides interesting features such as voice calling, video messaging, photo messaging and text messaging. Delete the information immediately after browsing. That is, there is no talk outside the strip counter. There's also a Snapchat story where users can send general status updates for all fans to see. It will expire after 24 hours. Some of the features of the app are imitated by other apps (mainly Instagram). This app is very popular among young people.

Hike:

Hike is an instant messaging application created and developed in India. The company caters to young people and offers a rich library of constantly updated stickers. In addition to stickers, the app also provides features such as hiding chat options, importance, and hiking news. Hiking is available on both the Google Play Store and the Apple App Store.

Line:

Line is a messaging app developed after the 2011 tsunami in Japan. As a result of the disaster, many regular communication channels have collapsed, and Internet company Neighbors has developed the Line app for employees as an internet-based communication tool.

A brief history of Telegram:

Telegram was launched in 2013 by the brothers Nikolai and Pavel Durov. Nikolai is responsible for his unique encryption scheme, the MT Proto protocol. This is essentially the "secret element" behind Telegram's privacy-centric approach. In addition, the company does not disclose where the office is located to avoid government data demands. In 2014, Telegram had already reached 35 million month-to-month customers and 15 million every day customers. By the end of the year, that number had reached up to 50 million active users. The app already displayed 1 billion messages a day and added 1 million users a week. Telegram's abnormal growth continued. At the beginning of 2016, there were up to 100 million monthly users. That number has doubled by the beginning of 2018. At the end of 2021, Telegram gained over 70 million users with the outage of Facebook, including WhatsApp. As of March 2022, Telegram has 500 million monthly active users.

Working of telegram:

Telegram works on the principle of cloud storage. Cloud storage is dynamic which means that once your data is saved, it could exist by you from any number of devices at any point in time, without the need to backup.

Features of Telegram:

1. **Larger groups:** A Telegram can create groups of up to **200,000** people.
2. **Secret conversations:** Secret chat is for those who want more secrets than the average guy. All secret chat messages use end-to-end encryption. This means that only you and the recipient can read these messages-no one else can decrypt them.
3. **Available on several platforms:** Telegram application is available on multiple platforms Android, iOS, Windows, Mac, Linux and also on web browsers.
4. **Free:** Telegram is forever free and has no ads or subscription fees. No matter how many messages you send or receive in a day or what you want to use this messenger for (business, personal), it's completely free and unlimited.
5. **Faster:** Telegram is the fastest messaging app on the market, connecting people through its own distributed network of data centers around the world.
6. **Larger file sizes:** Previously, Telegram allowed users to send files up to 1.5GB on the platform. With the latest update, the limit has been raised to 2GB.

7. **Cloud storage:** Telegram allows you to store an unlimited amount of data on your server, including various types of files such as audio files, video files, documents, messages, contacts, locations, and more. It's all free.
8. **Constant updates:** Telegram is one of the best messaging apps which constantly adds new features and options.
9. **Quality compromise:** Telegram allows users to send data in uncompressed format. Images that are often compressed by other messaging apps lose detail when compressed, but this feature of Telegram allows you to transfer data without loss.
10. **Bots:** Bots are simply Telegram accounts that are operated by software rather than actual people and these bots generally have AI features that can be used to teach, play, search, broadcast, conduct polls, reminders, etc.
11. **Channels:** Channels are essentially groups where only the admin can post. These channels can be used for broadcasting videos, images, and texts and can have any number of followers.
12. **Privacy :** The location of servers of Telegram is super secret and the founder of Telegram has devised a custom data protocol which secures the data of the users.
13. **Web Access:** Telegram stores chats and files on a remote server rather than on your device, so you can access everything (except secret chats) over the Internet. Access from the web portal or one of several Chrome extensions.

Purpose of using telegram:

1. **Giving Reminder:** Telegram is used as a messenger for giving reminders to the user about returning of books..
2. **Library Orientation:** Telegram can be used for giving introduction to the library's resources and services.
3. **Taking Quiz/Poll:** Telegram can be used for taking quizzes/polls on different subjects.
4. **Taking Feedback:** Telegram can be used to take feedback about any program arranged by libraries and also about services given by libraries for further improvement.
5. **Images:** Telegram can be used for sending images.
6. **Videos:** Telegram can be used for sending videos.
7. **Files:** Telegram can be used for sending Question papers, Syllabus, etc.... files of any kind.
8. **Storage:** Telegram server has unlimited storage space which is the need of today.
9. **Voice Calls & Video Calls:** Telegram can be used for calling both voice calls as well as video calls.
10. **Display:** Telegram can be used for displaying various notices, activities, services, new arrivals etc...
11. **Institutional Repositories:** Telegram can be used as Institutional repositories. In this you can keep college magazines, faculty research papers, video lectures, student research etc...

12. **E-Books Lending Service:** Telegram can be used for giving access to purchased downloaded ebooks, open access books etc....
13. **Conference, Seminar , workshop:** Telegram can be used for taking online Conferences, Seminars, Workshops.
14. **Current Awareness Service:** Telegram can be used for giving current awareness service to the user. By which library users can be aware of new research and development in their area of interest.
15. **News paper clipping service:** Telegram can be used for giving news paper clipping service. Here librarians can keep clippings of general knowledge, employment news, college news etc.....

Advantages of telegram Application:

1. **Multiple Accesses:** Using telegram, the same resources can be used by many users at same time.
2. **No physical boundary:** Users can use the resources at home no need to come to the library physically.
3. **Search facility:** Telegram has a search facility by which users can search any information which is already there.
4. **Virtual Book exhibition:** With telegram one can have a virtual book exhibition.
5. **No initial cost:** Telegram application can be downloaded free of cost.
6. **Time saving:** Using a telegram application once data or information stored need not have to give time any more.
7. **24/7 access:** Once stored information can be used remotely at any time of the day.
8. **Cloud storage:** Telegram works on the principle of cloud storage. So, no need to take backups.
9. **Works on number of devices:** Telegram application works on number of devices. So no need for Attention.
10. **Number of views:** Telegram shows the number of views, which is necessary for the library to show the number of access.

Conclusion:

Sure, there's no shortage of messaging apps to choose from, but telegram is one of the best options, especially when privacy is important. Telegram does many of the things you'd expect from an instant messaging app, including text messaging, group chat, voice and video calls, stickers, and file sharing. Telegram application can be used by librarians for delivering various services of the library. It has many benefits and advantages like no storage space required, 24/7 access, works on any devices, free of cost, can send large files, deliver data without loss and many more as explained above. Above all, anyone can handle this application easily. So librarians should use this application for their library.

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Philosophy of Lord Buddha and Dr. B. R. Ambedkar

Dr. Sunanda M. Madar
Assistant Professor
GFGC Gokak.

The basic doctrines of early Buddhism which remain common to all Buddhism, include the four noble truth:

Existence is suffering.

Suffering has a cause namely craving and attachment.

Buddhism is one of the World's largest religions and originated 2500years ago in India.

- Meditation
- Spiritual
- Physical Labour
- Global Behaviour

These are the ways to achieve enlightenment or Nirvana.

Main beliefs of Buddhism

- ✓ Refrain from taking life not Killing any living being
- ✓ Refrain from taking what is not given.
- ✓ Refrain from the misuse of the senses.
- ✓ Refrain from wrong speech
- ✓ Refrain from intoxicants that could the mind.

Followers of Buddhism don't acknowledge a supreme god. The religion's founder, Buddha, is considered an extraordinary being but not a god.

The three Universal Truth's

- 1) Everything is impermanent and changing.
- 2) Impermanence leads to suffering making life imperfect.
- 3) The self is not personal and unchanging.

The goal of Buddhism is to become enlightened and reach nirvana.

Basic Philosophy of Buddha



Any specific system of belief and worship often involving a code of ethics and a philosophy. For this definition.

Buddhism would be a philosophy . It is because it is non-theistic and does not generally involve worship of spiritual entity.

Buddhism is still considered to be a religion by the majority of the public, so clearly there have to be reasons for this also.

Three main beliefs of Buddhism

Buddhists believe that the human life is one suffering and that meditation , spiritual and physical labour and good behaviour are the ways to achieve enlightenment or nirvana.

Buddhism has been a controversial religion. The Head of the Tibetan School of Buddhism and traditional leader of Tibet, the Dalai Lama fled from China Controlled Tibet in 1959 to India in fear of his life. Many Tibetan Buddhists actively resist Chinese control of the region.

Observations And Suggestions:

- Dr B .R. Ambedkar is a father of social justice.
- He is a modern human rights thinker and practitioner.
- He is a role model to all in terms of pains and pleasure.
- He is a realistic thinker and led life with practical.
- He is a man of courage and devotion.
- He is a lover of nature and human rights.
- He is a lighting lamp of the society.
- He was born for knowledge only.
- His views will be continued and permanent forever.

Dr. B.R. Ambedkar ideology i.e equality and equity should provide all people without any discrimination.

All new babies should born, live and survive in Indian society without any fear and discrimination . Dr. B.R Ambedkar philosophy should imbibe in all personalities , particularly in students.

Buddha is also known as Gotama Buddha ,Siddhartha Gautama and Buddha Sakyamuni, was born in Lumbini in the Nepalese region of Terai , near the Indian border.

He is one of the most important Asian thinkers and spiritual masters of all time and he contributed to many areas of philosophy, including epistemology , metaphysics and ethics.

The Buddha's teaching formed the foundation for Buddhists philosophy, initially developed in South Asia , then later in the rest of Asia Buddhism and Buddhist philosophy now have a global following.

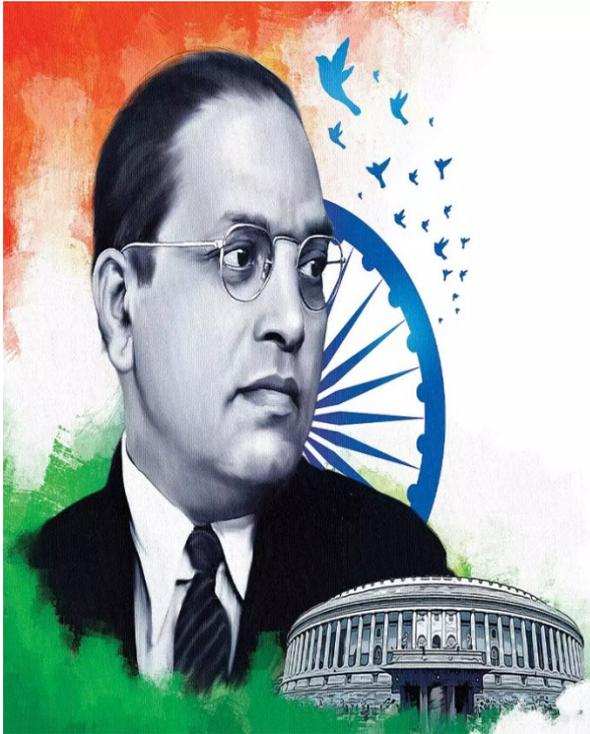
Four Noble Truth:

- **Dukka** – Life is unsatisfactory, disjoint, suffering.
- **Samudaya** – There is a cause of suffering which is attachment or desire (tanha).
- **Nirodha** – There is a cessation of suffering which is to eliminate attachment and desire.
- **Marga** – The path leads out of suffering is called the noble eightfold path.

The Buddha taught that in order to realize enlightenment man must free himself from his ego, and give up all desire. He taught that by having so many desires (such as wanting pleasure, wealth, happiness, security, long life, etc) man subjects himself to suffering and will never escape the cycle of rebirths.

Therefore Buddhism believes that suffering is self – created.

Dr .B.R. Ambedkar life



Dr B.R. Ambedkar life was a crusade for social, economic and political justice of the downtrodden. His life was a great saga of suffering, sacrifice and struggle. as a student as a lecturer as a social thinker and as a political leader, he faced heavy odds, onslaughts and humiliations. From childhood onwards he had tasted of caste tyranny, obscurantism, oppression and unbearable agony. In every stage Ambedkar rebelled and fought against these pernicious and inhuman facets of Hindu society. Ambedkar had some unique qualities like courage, conviction, discipline, hardwork, deep study, scholarship, single -minded devotion, dedication, sacrifice and selfless service that helped him to carry the message of a Messiah to the downtrodden and the suppressed mankind in the country" After 2500 years his voice only awakened the sleeping millions of people in

Indian continent. His path gave the clarion call to the innocent masses to shake off the shackles and break the barriers.

Dr .B.R. Ambedkar led satyagrahas to assert human rights. He advocated three traits : educate , organize and agitate . Indeed the first principle will provide rational thought, the second principle will give mental / physical strength and third principle will lead to fight for human rights, be it man or woman. In Indian continent after “Buddha” he was only scholar who had raised the questions against the traditional and conservatism, like “Socrates”.

Dr. B.R. Ambedkar’s Philosophy:

Dr. Ambedkar was a true socialist . In his book state and minorities he wrote industries ,which are basic and key industries , shall be owned and run by the state , insurance shall be the monopoly of the state , agriculture shall be the state industry. He advocated the land shall be let out to villagers without distinction of caste or creed and in such manner that there will be no land lord , no tenant and no landless labourers .DR. B.R. Ambedkar’s opinion on labour that labour must have both equality as well as liberty and a constitution which balances both can be the only ideal constitution from the point of labour. In other words “the economic structure of the society which would serve the interest of labour communism : through his speeches and writings, he pleaded for the establishment of ‘state socialism ‘ through parliamentary democracy. Dr . B. R . Ambedkar was a lover of democracy and a true democrat. He believed that the true democracy will be available only through political democracy. Throughout his life he fought relentlessly to establish a society in India based on the democratic on democratic ideals of liberty, equality and fraternity. Dr. B.R. Ambedkar’s emphasis on secularism as the only way to solve the minority problems on a more rational basis as a part in democracy. He had all along pleaded for democratic planning as the means to achieve the social equality . According to Dr. Ambedkar freedom of country does not mean freedom of geographical unit. The social and economical

uplift of the depressed classes was consistent with his claim for the independence of the country. Dr Ambedkar believed that, "without social conscience "democracy loses its soul and there cannot be any social conscience, unless there is social democracy.

His conception of community is very novel. He does not confirm to either Hindu ideal community or Marxist conception of community based on participation in production process. His conception of community is moral and ethical. It is not automatically available for participation in common affairs. His idea of community has to be created through hard and torturous process of moral transformation. He is of the opinion that whatever theories and principles the philosophy propounds must return to society as an instrument of religion for constructing the society. He has not attained his philosophy by meditating and contemplating in some solitary place. But it is borne out of his relentless struggle for human rights of the oppressed. He is a great humanist.

Conclusion:

The prabuddha India will be India with the inquiry, rational and scientific attitude and scientific spirit. In his book 'Buddha and his Dhamma', he envisioned a new world and a new world order; which is based on morality.

New India that is Prabuddha India, will be modern India which is free of caste, feudalism and patriarchy and exploitation and superstition and dogma. Prabuddha India which will cherish the values like Equality-Liberty-Fraternity and Justice.

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Study of Resource Sharing and Networking in the Libraries of National Power Training Institute

Suvarna Inamdar

Librarian,

Kamla Nehru Mahavidyalaya, Sakkardara, Nagpur

Srinamdar.librarian@kamlanehrucollege.ac.in

Mobile no : 9096557881

Abstract:

Resource sharing becomes more prime and unavoidable for India because the libraries are deprived of funds and resources. Today, no single library can fulfil its reader's requirements on its own collection. It has, dependence on resources external to its collections: The reason for this dependency is the rising cost of journals, the growing pressures on library space and the cost of processing and maintaining large collections. In essence, these factors are for effective cooperation among different libraries. Library cooperation in resource sharing has become essential because of a shift on the part of the libraries from permanent acquisition to temporary ownership.

Keywords: Institute, Departmental Libraries Status, Services, Budget, Information Technologies

Introduction of National Power Training Institute:

Central Water and Power Commission (Power Wing) established Thermal Power Station Personnel Training Institutes in 1965–1975 at Neyveli (1965), Durgapur (1968), Badarpur, Delhi (1974) and Nagpur (1975) for training the engineers of thermal power stations which were being established in the country during that time. It also established the Power Systems Training Institute (PSTI) in 1972 and Hot Line Training Centre (HLTC) in 1974 in Bangalore. With the bifurcation of the Central Water and Power Commission into the Central Electricity Authority (CEA) and Central Water Commission (CWC) in the 1970s, the Institute came under the Central Electricity Authority (CEA). In the late 1970s, the Raj Dekshya Committee set up by the Government of India to improve the power sector of the country recommended among many things formal training for the personnel employed in the power industry. Accordingly, the Indian Electricity Rule was amended to make training mandatory for the personnel employed in the generating stations and associated substations. With this, the Thermal Power Station Personnel Training Institutes under the Central Electricity Authority were carved out and formed into a separate autonomous body under the Ministry of Power as the Power Engineers Training Society (PETS) in 1980 to give more importance to Power Training and to have accelerated growth of the Institutes. Later, in 1993 Power Engineers Training Society (PETS) was renamed as National Power Training Institute (NPTI). Power Systems Training Institute (PSTI) and Hot Line Training Centre (HLTC) were merged with NPTI in 2002.

The National Power Training Institute (NPTI) grew continuously through the tenure of the Indian government. The Institute, which previously conducted training only in thermal power generation has now equipped itself to conduct training in all segments of the power sector i.e. generation, transmission and distribution. In the last four decades of its existence, NPTI has trained thousands of engineers, supervisors and technicians from most of the Electricity Boards, public and private sector utilities and personnel from developing nations

Libraries of National Power Training Institute:

Libraries of National Power Training Institute Corporate Centre and other institutes have a large collection of books and video packages on Modern Power Station Technology, various branches of Engineering, Computer Sciences, Industrial Relations, Management, Power Reforms, Regulatory issues, Attitudinal Reorientation etc. It also subscribes to several Indian and foreign technical journals and periodicals. As many as ---75 Technical Manuals/Books have been published by NPTI with lucid presentations to enhance the conceptual understanding of various sub-systems. These are available at nominal prices for procurement by Power Utilities and industries.

Library Collection: All the institutes of NPTI Library, have more than 10000 textbooks, reference books & other own printed materials, project reports and Audio-Visual materials such as CDs/DVDs, e-books, technical journals, periodicals and many other types of electronic resources subscribed through the consortium.

Library Services and Facilities: Following facilities and services are provided by the libraries of the National Power Training Institute

- Document Borrowing Facility.
- Textbook Service.
- Reference, Referral and Information Service, and E-referencing.
- Reservation of books.
- Facility to browse reading materials in open access environment.
- Use of special collections
- Assistance in the use of Electronic Resources.
- Book bank facility for B.E. students
- J-Gate consortium for e-books and e-journals.
- Library Membership Facility



Library Collection

Books: At present, the total collection of the library is 50,000 documents including books, monographs, workshop papers, proceedings of conferences, and statistical serials. An equal number of Micro Documents comprising Institutional Research Reports, discussions, and Occasional and Working Papers are also available. The library also has a wide collection of Annual Reports of Companies, Dept. of Central & State Government and other corporate bodies. The library holds a depository status for receiving publications of the World Bank, United Nations and allied agencies and other international organisations.

Journals: In addition to the 5,000 back volumes of journals, the library subscribes to 126 current journals, and receives 52 journals in exchange and 126 current journals as gratis. The library exchanges the Institute's research output and publications (including its journal, (Contributions to Indian Sociology) with similar institutions in India and abroad. In total, the library receives 304 journals.

Subject Coverage: libraries of the National Power Training Institute have documents and journals in the field of Electrical engineering, Mechanical engineering, Energy audits, environment, finance, econometrics, mathematics, transmission and distribution of power, conventional and non-conventional sources of energy, management etc.

Library Automation:

Software

Library automation has started in 2001. Now libraries of the National Power Training Institute are fully computerized and use Lib-Man library software for recording the incoming documents and retrieving the bibliographical information from the same database.

Hardware

At present, libraries have more than forty Computer Nodes including four nodes with Internet connectivity and CD-ROM Drive and ten printers. All nine nodes are connected with LAN. Faculty and researchers can access library databases from any nodes at their desks connected to a network. It has got a photocopier also which is used to reproduce the documents on request.

Types of Information Resources that are Stock by Special Libraries: A Multimedia

Computer Based Training (CBT) Center has been established at NPTI's Corporate Office and its Regional Institutes for developing Multimedia CBTs in various Technical areas concerning Power Generation like Thermal, CCGT/Gas, Thermal, Hydro, Renewable Transmission & Distribution and Management Areas.

Publications: 99 Training manuals are published and available for the trainees.

Reports: 73 numbers of Reports downloadable from various governments agencies are available

Policies: 21 numbers of Government Policies in the power sector are available on the website.

Presentations: 227 presentations of the latest trends in the power sector are provided as open source resources.

Download: Under this head 54 pdf files are available in downloadable form.

Reference and Information Services:

The library has a well-organised reference section, which is equipped with the latest reference books to provide ready reference and long-range references to its users.

Generally, reference queries are received through personal contact, telephonically and E-mail. The library has E-mailing facility and provides various reference and documentation services more quickly to its readers through E-mail.

1. To receive reference queries either from faculty or from the outside. (India & abroad).
2. To provide reference & documentation services more easily (e.g. providing Information through E-mail regarding Arrival This Week).
3. To facilitate Inter Library Loan conveniently.
4. To mail reminders for overdue books.

Library also provides the following services through Internet and CD-ROM

1. Contents of journals available on different sites.40
2. Latest Publications available on the Internet.
3. Journal abstracts and articles.
4. Full-text service
5. Bibliographic service
6. Working papers available on the Internet.

Selective Dissemination of Information

The library provides SDI services to its users which include:

1. Finding out the subject interest or information needs of the users and subject contents of the incoming documents.
2. Connecting the right user with the right document through matching and notification.
3. Keeping the interested file of the users up-to-date and responsive to their needs based on the feedback.

Current Awareness Service (Arrivals this week)

Library also provides CAS to keep seekers of information abreast with the latest developments in their responsive field. CAS includes the 'Arrivals This Week' a document which is E-mailed to all the Faculty members, scholars and researchers every Friday. It includes all the incoming documents such as books, journals, annual reports, micro- documents, Working Papers and serials etc. The information available in various Newspapers is also disseminated regularly. New books, periodicals, micro-documents etc. are displayed regularly in the library.

Bibliographic Service

Bibliographic services provided by libraries of the National Power Training Institute have played an important role in helping the research scholars to complete the research work in time. It also provides short bibliographies on request to research scholars.

Networking/Inter Library Loan Service

Today no library is self-sufficient to fulfill its user's information needs, therefore the arrangement is made to help the readers in getting the desired books and journals which are not available in the libraries of the National Power Training Institute on an inter-library-loan basis

Conclusion and Recommendations:

Based on web site of the National Power Training Institute it is observed that training institute's libraries, especially in developing countries should continue subscribing to information resources through the Consortium Building (CB) and their usage by addressing needs. Also, the government should set aside an appropriate fund for the purchase of information technologies and facilities required for libraries of a training institute for resource sharing. It is recommended that the old documents and reports of different power stations of local level can be shared in digital should be given more priority, especially for rare information resources that have high demand but their supply is low and exists in print format to start with. Effective policies should formulate for training institutes Libraries

Reference: (i) <https://archive.ifla.org>

(ii) <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article>

Quality of Service Based on Dynamic Web Service Composition

S. Manikandan

Assistant Professor, Department of Computer Science,
Government First Grade College, KR Puram, Bengaluru-560036.

Abstract:

In the world whatever, whichever, whenever we see are in the form of data. Data can be transferred from one place to another is possible by the way of Dynamic Web Service Technology. Dynamic Web Services Technology is nowadays does the Quality of Services. Dynamic Web Service Technology is growing at rapidly for the need of creating more multifaceted trade services are becoming very essential for the modern world. Dynamic Web Service Composition research is more valuable for the possibility of automatic integration and collaboration. BPEL (Business Process Execution Language) is one of the most famous Dynamics Web Services Composition notations. BPEL facilitates are the creation and execution of business processes based on Web Services. This thesis extends the BPEL approach by enabling clients to define their required Quality of Service (QoS), bind select Dynamic Web Services at run time and creates BPEL documents dynamically. This thesis introduces a new framework in which Dynamic Web Service providers can announce the QoS and clients can search and find their requirement of QoS. The framework uses a Peer-to-Peer (P2P) environment; P2P implementations create an overlay network that provides enhanced safety. Another advantage is that P2P puts similar services into closed communications so that the search and discovery of services is accelerated.

1. Introduction:

Dynamic Web Services Technology allows interoperability between applications and provides flexibility to integrate businesses. In order to support Business-to-Business or enterprise application integration, Dynamic Web Services are required to collaborate. Dynamic Web Service Composition focuses on business process creation based an arrangement and choreography (the practice of designing such sequences) of Dynamic Web Services. The manual composition of Web Service is time consuming and requires a significant amount of detailed coding and dealing with heterogeneous (different type) services. As the number of services increase in a composite service the arrangements among the services becomes more problematic. The necessity and complexity of the task of service composition has resulted a number of companies and standardization bodies working towards a common language for defining automation of BPE (Business Process Executions).

Some have taken the semantic Web approaches such as DAML-S and some have taken the syntactic approach such as BPML, XLANG, WSFL and BPEL. Dynamic Web Service Composition and these languages. However most of Dynamic Web Service Composition definition languages are heavily based on Web Service definitions. That is provided in Web Service Definition Language (WSDL) descriptions.

2 . Review of Literature:

Many of the researchers have addressed this problem in literature in different context. The literature related work is given below.

2.1 Background of study

This provides a review of the technologies used in this Thesis and includes descriptions of distributed computing, P2P and JXTA technologies. An overview of Dynamic Web Services and Dynamic Web Service Composition definitions are also provided

2.2 Distributed Computing Systems

A distributed computing system is a collection of computing nodes that can have different types of hardware architectures and are interconnected by a communication network. There are various approaches to distribute the computing systems, two of the most noteworthy are:

- Client/Server Architecture
- Peer to Peer Architecture

2.3 Client/Server Architecture

In a network where a group of nodes is communicating with each other, a more powerful node is assigned as the server and provides services and information to the other nodes considered as clients. Clients send requests to the server and receive results. Figure 1 illustrates a Client/Server architecture view.

This architecture has evolved from a 2-tiered architecture to a 3-tier and multi-tier client/servers architecture, where the software is modularized into two or more pieces and usually each module reside on separate hardware. Client/Server architecture provides more scalability and flexibility in software systems.

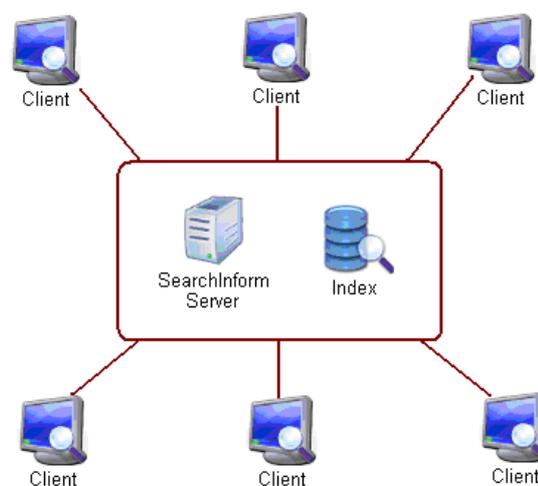


Figure 1: Client/Server Architecture

2.5 QoS in Dynamic Web Service Composition

Clients of Dynamic Web Service Compositions are bound to use the static Dynamic Web Services that are defined at the time of design in a chosen Dynamic Web Service Composition Language. They cannot select a specific Web Service dynamically at run time based on their requirement specifications.

2.6 Dynamic Web Service Composition Security

Dynamic Web Service Composition enables businesses to interact and interoperate. Any transaction or message exchanged between businesses could potentially contain confidential information. Service providers are required to take the privacy and integrity of messages seriously.

2.7 Quality of Service Search and Discovery

UDDI is used as a standard technology for dynamic search and discovery of Dynamic Web Services. However, UDDI uses a central system and is not aware whether a registered Web Service is available at the time of client search.

2.8 P2P Architecture

Network architecture may be called a Peer-to-Peer (P-to-P or P2P) network, if the participants share a part of their own hardware resources e.g. processing power, storage capacity, network link capacity and printer. These shared resources are necessary to provide the service and content offered by the network (e.g. file sharing or shared workspaces for collaboration). The participants of such a network are thus resource providers (Service and content) as well as resource requestors.

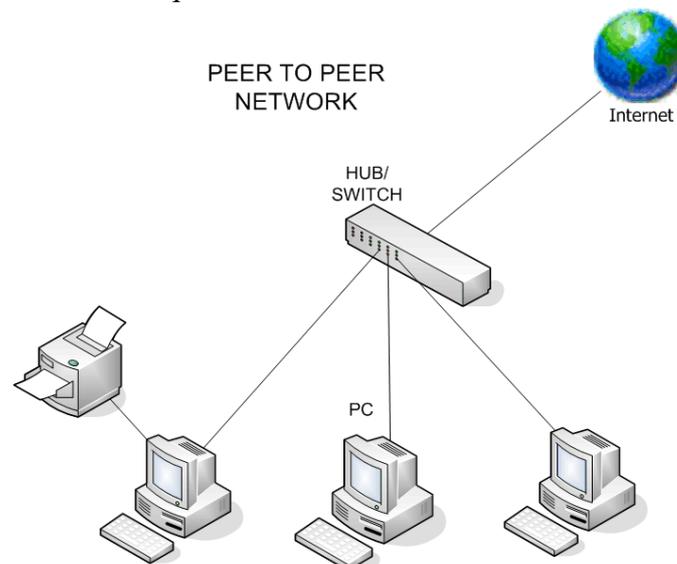


Figure 2: P2P Architecture

3. Methodology:

From the above literature survey it is revealed that not more work has been done for the provides a review and analysis of the Methodology in Dynamic Web Service composition based on QoS. An overview and analysis of QoS based Dynamic Web Service composition is presented. It provides an analysis of several approaches towards solving this issue. This chapter then specifically selects 3 related works that aligns more with the goals of this thesis, and provides a detailed overview of them. A conclusion is drawn at the end that leads the thesis to the chosen architecture that is provided in the next chapter.

3.1 QoS based Dynamic Web Service Composition

Dynamic Web Service Composition is the Technology that enables businesses to provide business logic by integrating various Dynamic Web Services within their organization or by collaborating with other organizations. Travel planning is an example of a Dynamic Web Service Composition. Clients send requests to the server and receive results. Figure 1 illustrates a Client/Server architecture view. The participants of such a network are thus resource providers (Service and content) as well as resource requestors. the Napster architecture An overview.Gnutella architecture, The peers and resources are behind firewalls or are on different network transports. A peer group view of a JXTA network .An example of a JXTA ID is:

urn:jxta:uuid-

59616261616162614A78746150326033F3BC76FF13C2413CBC0AB663676DA53902

The format of a JXTA ID is URN (Unified Resource Names). A brief description of the six JXTA protocols, for detailed specification of JXTA protocols refer to

A Peer ID and a password protect each peer from intruders. Definition of WSDL XML schema. For full details of the SOAP definition. The business process of purchasing a commodity from a vendor: Overviews of comparison between these methods. XLANG is another XML based meta-language for defining business processes Web Services Flow Language (WSFL) Description of BPEL. Overview of main BPEL definition QoS based on Web Service Offerings Language (WSOL) is one of such languages. WSOL enables formal specification of classes of service in a Web Service. Classes of service are referred to as service offerings of a Web Service. WSOL is a thorough and strongly typed language definition that allows specification of functional and QoS constraints and access rights and is useful in management of Dynamic Web Services. Web Service Level Agreement language (WSLA), is another such language. These languages provide a static approach to service definition of a Web Service. Service providers are strictly dependant on the definitions of the chosen language and less flexibility is provided. Several research projects have resulted in more dynamic approach to this issue and that is the goal of this thesis as well.

4. Result And Discussion

This chapter presents an experiment of the concepts and designs that were described in previous sections. It is a prototype implementation of the WSQEF framework. JAVA, XML and JXTA and BPEL technologies are used throughout the implementation. In this section we walk through an example of a Web Service search composition in JXTA in WSQEF framework. The chapter describes an example scenario Provides the necessary steps that take place for the scenario to execute a Dynamic Web Service Composition based on WSQEF architecture.

4.1 Example Scenario

In this example, the process of a loan request is implemented. The process begins with a customer requesting for a loan. The business process then sends the request to a financial institution and receives the result. Then it will send the request to an assessment company and asks for the risk associated with the loan. If we were going to implement this business process without using WSQEF framework, we would have to choose a fixed financial institution and a fixed assessment company in the business process that define a Dynamic Web Service Composition scenario.

4.2 Raw BPEL Documents

A set of WSDL documents and one BPEL document are required to be written for this business process. At design time we assume that the WSDL documents of the financial institutions that provide loan services through a Web Service are available and they all support the same operations and messages for the WSDL document of this Web Service example.

4.3 WSQS XML

The WSQS document contains the functional and QoS information of the particular web service that the provider intends to advertise. This document conforms to the schema that was proposed as part of WSQEF and described. Each provider determines the values of functional and QoS information it will advertise. Table 1 presents an example of the QoS criteria for a loan service. Table 1 XML document is an example of

a WSQS for a loan service.

Service name: loan service	
Name	Value
delivery	http
ServiceCharge	4
portType	apns:loanApprovalPT

Table 1 Service name: loan service

Table 1 presents an example of the QoS criteria for a loan assessment service.

4.4 Web Service Advertisers

Web Service advertisers are peers that host Dynamic Web Services in JXTA network. They will join the same peer group and are part of a closed community within the P2P environment. Peer services that are not part of the same peer group can also be discovered through a gateway peer.

To be able to advertise the information read from the WSQS, the Pipe Module Class and Model Spec advertisements have been used. Module Spec advertisement has a “*parm*” element that can be extended and can hold an XML document structure. The QoS information will be assigned as name/value pairs in this element. This will provide a generic and flexible way to define any QoS name.

4.5 Enhanced Search Service

This component is another peer service that provides composite search services. Upon start up, it joins the peer group and listens for composite search requests by creating a JXTA pipe server facility.

5. Conclusions And Future Scope:

5.1 Conclusions:

In this research work we addressed the problem of “QUALITY OF SERVICE BASED ON DYNAMIC WEB SERVICE COMPOSITION”. The focus of this thesis is to address a set of problems describe in section 1.2. In this section we review the problems and outline the approaches taken to address them.

The main problem stated in section 1.2.1 is the need to enable QoS based on dynamic Web Service composition. This thesis proposes a framework to solve this issue. The framework is the integration of existing technologies and newly designed components that can interoperate. The WSQEF framework architecture is explained in detail .

Another problem stated in the issue of security that arises when businesses need to communicate with each other through the Internet. A P2P environment has been selected in this framework for the security benefits it provides. The entities in this framework are part of an overlay network where secure communication can be enforced. XTA provides some security mechanisms described and also provides a base for additional security features to provide privacy, integrity and authentication.

Using the JXTA platform brings the benefit of search and discovery of services in a decentralized environment addressing the problem stated. JXTA also provides advertisement documents (described in 2.5.3.5) that enable all service entities to publish their information.

Extensibility of advertisements is used in the proposal to enable service providers publish their functional and QoS information.

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7.Keywords

BPEL	Business Process Execution Language
BPML	Business Process Modeling Language QoS Quality of Service
NAT	Network Address Translation
PC	Personal Computer
PDA	Personal Digital Assistant
SOAP	Simple Object Access Protocol
UML	Unified Modeling Language
UDDI	Universal Description, Discovery and Integration.
WSDL	Web Service Definition Language
WSFL	Web Services Flow Language
XML	eXtensible Mark-up Language

Innovative Services and Applications of Wireless Sensor Networks

Mrs. C. Nithya Praba

Research Scholar (FT)

Department of Computer Science

Dr.SNS Rajalakshmi College of Arts and Science, Coimbatore-49.

Dr. D. Kalaivani

Associate Professor & Head

Department of Computer Technology

Dr. SNS Rajalakshmi College of Arts & Science, Coimbatore - 49.

Abstract:

Securing data transferred over a WSN is required to protect data from being compromised by attackers. Sensors in the WSN must share keys that are utilized to protect data transmitted between sensor nodes. There are several approaches introduced in the literature for key establishment in WSNs. Designing a key distribution/establishment scheme in WSNs is a challenging task due to the limited resources of sensor nodes. Polynomial-based key distribution schemes have been proposed in WSNs to provide a lightweight solution for resource-constraint devices. More importantly, polynomial-based schemes guarantee that a pairwise key exists between two sensors in the WSNs. However, one problem associated with all polynomial-based approaches in WSNs is that they are vulnerable to sensor capture attacks. Specifically, the attacker can compromise the security of the entire network by capturing a fixed number of sensors. In this paper, we propose a novel polynomial-based scheme with a probabilistic security feature that effectively reduces the security risk of sensor-captured attacks and requires minimal memory and computation overhead. Furthermore, our design can be extended to provide hierarchical key management to support data aggregation in WSNs.

Key words: data aggregation, polynomial , lightweight, sensor nodes.

1.Introduction:

Due to recent advances in electronic industry, wireless sensors can be used in various ubiquitous and pervasive applications such as military, security, health-care[1, 2], industry automation, environmental and habitat monitoring [3, 4]. Wireless sensor networks (WSNs) consist of large number of low power nodes, with limited processing, communication, and storage resources [5]. Due to limited resources of WSNs, it is challenging to incorporate basic security functions, such as authentication, access control, data integrity, privacy, and key distribution. For instance, asymmetric cryptography such as RSA or Elliptic Curve cryptography (ECC) is unsuitable for most sensor architectures 2 Firdous Kausar, Ashraf Masood, and Sajid Hussain due to high energy consumption and increased code storage requirements. To avoid the use of asymmetric cryptography, several alternative approaches have been developed to perform key management on resource-constrained sensor networks, such as random key pre-distribution schemes, plain text key exchange schemes, and transitory master key schemes. In WSNs, hierarchical clustering provides scalability, self-organization, and energy efficient data dissemination [6]. A number of cluster formation protocols have been proposed but most existing protocols assume benign environments, and are vulnerable to attacks from malicious nodes. In this chapter, we use an existing ring structure energy efficient clustering architecture (RECA) [7]

to divide nodes into clusters. However, we modify its initial cluster formation algorithm by providing an authentication mechanism, so that no malicious node can take part into cluster formation process. The proposed authenticated key management (AKM) scheme enables only legitimate nodes to join the network. The rest of the chapter is organized as follows: Section 2 discusses key distribution schemes, which are relevant to the proposed scheme. In Section 3, the AKM scheme is described in detail, such as nodes authentication prior to join a network, secure cluster-formation along with details about shared key discovery, and new node addition. Section 4 focuses on the performance and security analysis of the AKM scheme. Section 5 summarizes the major contributions of this work

Wireless sensor technology is playing a vital role in many of the commercialized industrial automation processes and various other real life applications [1–4]. It is particularly suitable for harsh environment applications where deploying of other network infrastructure is difficult and/or almost impossible such as in battlefield, in hazardous chemical plant, and in high thermal environment. It is not uncommon to see that most of the crucial surveillance and security applications also rely on sensor based applications. Sensors which are tiny in size and cheap in cost have the capabilities to be deployed in a range of applications as explained in [5–9]. Essentially all sensor networks comprise some forms of sensing mechanism to collect data from an intended physical environment either by a time driven approach or by event triggering approach. By these approaches a sensor will convey the sensed data to a destination or sink (multiple destinations/sinks are also possible) via some kinds of routing algorithm such as Minimum Cost Forwarding Algorithm (MCFA), Directed Diffusion Routing Protocol (DDRP), or one of the cluster-based routing protocols. Being very small in size, sensor nodes are built with limited computational capacity, small storage memory, and finite battery power capacity [10].

The structure of a typical WSN node [11] consists of four main components: a sensing element, normally used for sensing a physically measureable parameter; an Analog-to-Digital Converter (ADC), used for converting analog signals to some digital formats; a processing unit, providing simple/basic data processing and computation capabilities; and a power unit, responsible for sensor node's operation life span. It is a known fact that WSN is a resource constrained network in which energy efficiency is always the main issue since the operation of WSN depends heavily on the life span of the sensor node battery [12]. The most energy consuming operation in WSN is the data packet routing activity. The characteristics of the WSN are different from the conventional networks [13, 14]. These unique characteristics are often taken into account for addressing the issues and challenges related to network coverage, runtime topologies management, node distribution, node administration, node mobility energy efficiency/consumption, network deployment, application areas/environment, and so forth [15–17].

Nodes in a WSN are generally energy, computation, and memory constrained. Consequently, there is a need for research and development into low-computation resource-aware algorithms for WSNs, targeting at small, highly resource constrained embedded sensor nodes. Energy consumption is of prime importance in WSNs and thus some algorithms [18–24] and hardware were designed with energy efficiency or energy awareness as a central focal point of interest. Enhancing energy efficiency of WSN with respect to the communication routing protocol is the primary concern of this research. We propose a new routing protocol entitled

“Position Responsive Routing Protocol (PRRP)” and compare its performance with the well-known LEACH and CELRP protocols. The simulation results show a significant improvement over the aforementioned protocols in terms of energy efficiency and the overall performance of the WSN.

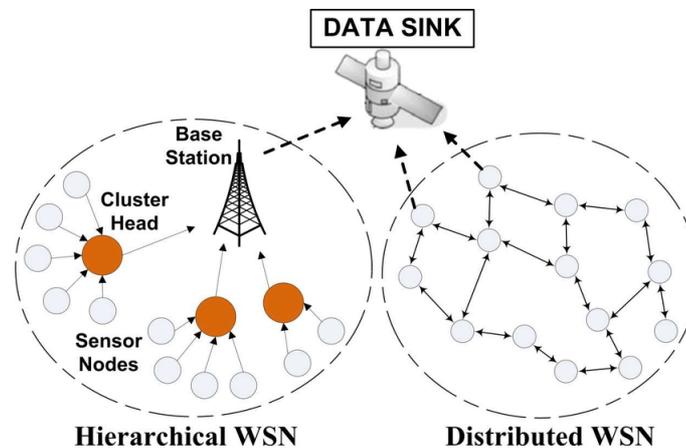


Fig 1: Key management in WSN

II.Related Works:

There are many key management protocols which are proposed for WSN. Eschenauer and Gligor [8] propose a probabilistic key pre-distribution technique to bootstrap the initial trust between sensor nodes. The main idea is to have each sensor randomly pick a set of keys from a key pool before deployment. Then, in order to establish a pairwise key, two sensor nodes only need to identify the common keys that they share. Chan et al. further extended this idea and propose the q-composite key pre-distribution [9]. This approach allows two sensors to setup a pairwise key only when they share at least q common keys. Chan et al. also developed a random pairwise keys scheme to defeat node capture attacks. Carman et al. [5] study the performance of a number of key management approaches in sensor network on different hardware platform. Perrig et al. [10] develop a security architecture for sensor networks (SPINS), where each sensor node shares a secret key with the base station. As two sensor nodes cannot directly establish a secret key, they can use base station as a trusted third party to setup the secret key. In [11], Basagni et al. present a key management scheme to secure the communication by periodically updating the symmetric keys shared by all sensor nodes. However, this scheme assumes a tamper-resistant device to protect the key, which is not always available in sensor networks. Blundo et al.[12] proposed several schemes which allow any group of t parties to compute a common key, while being secure against collusion between some of them. These schemes focus on saving communication costs while memory constraints are not placed on group members. When $t = 2$, one of these schemes is actually a special case of Blom's scheme [13]. Availability of some information on the sensor distribution in the field helps to improve the security of the key pre-distribution schemes. Some location-aware schemes are proposed in [14] and [15]. These techniques divide the target field into non-overlapping square areas and randomly deploy the sensors in every area. The exact location of a sensor in any area is unknown, but there is knowledge about the identity of sensors in every area. This information helps to eliminate the dependency of keys between nonadjacent cells.

3 The AKM Scheme

We propose authentication and key management scheme for hierarchical clusters in wireless sensor networks. 3.1 Terms and Assumptions Some of the terms and assumptions that are needed for the proposed scheme are as follows: 4 Firdous Kausar, Ashraf Masood, and Sajid Hussain Network Model The WSN consists of a 3-tier architecture consisting of a base station, cluster heads, and cluster members. Base station is a secure and not prone to failure node. It has virtually unlimited computational, communication, and memory resources. Further, it is assumed that base station can transmit directly to every sensor node. Sensor nodes, however, are battery-constrained and inexpensive nodes. They have limited communication, processing and memory storage resources. Each sensor node can act as a cluster head (CH) or a cluster member. The CH is chosen based on a RECA algorithm given below. A cluster member communicates directly with its cluster head (CH); there is no communication between sensors. In other words, there is 1-hop communication between a cluster member and the CH. Further, cluster heads can communicate with each other directly and to the base station. Figure 1 shows a WSN with three clusters. The cluster heads transmit directly to the base station and cluster members communicate with their cluster heads only. Further, there are a few isolated sensors that do not belong to any cluster and they communicate directly with the base station

Types	Cost	Deployment	Challenges
Terrestrial WSN	inexpensive	structured, unstructured	energy
Underground WSN	expensive	structured structured	energy, signal loss, attenuation
Underwater WSN	expensive	structured, unstructured	energy, bandwidth signal fading
Multimedia WSN	inexpensive	structured, unstructured	energy, high data rate, high bandwidth
Mobile WSN	expensive	initial spreading	Energy, localization, deployment

- minimizes communication overhead
- enhances resource use. For example, non-neighbor clusters can use the same communication frequency.
- scalability; nodes can join or leave the group without affecting the entire network.

TABLE: key challenges in wsn

Identify the Multiple Sink Nodes

Take the optimal value of sink nodes into cluster category and go for hierarchical clustering. Since the hierarchical clustering is the cluster method based on distance, the process of it can be divided into the following steps.

At first, find the similarity among objects and define the distance that can represent the differentiation of them. In this paper, the Euclidean distance that is calculated above is selected to realize the dissimilarity of them. When the objects and have a close relation, the value of is rather small, even close to 0.

Next, produce the hierarchical cluster tree with the linkage function. In accordance with the hierarchical clustering analysis for nodes topology, the distribution for sink nodes can be marked out; this process is shown in

cluster nodes according to the matrix and sink nodes number which acts as cluster category;

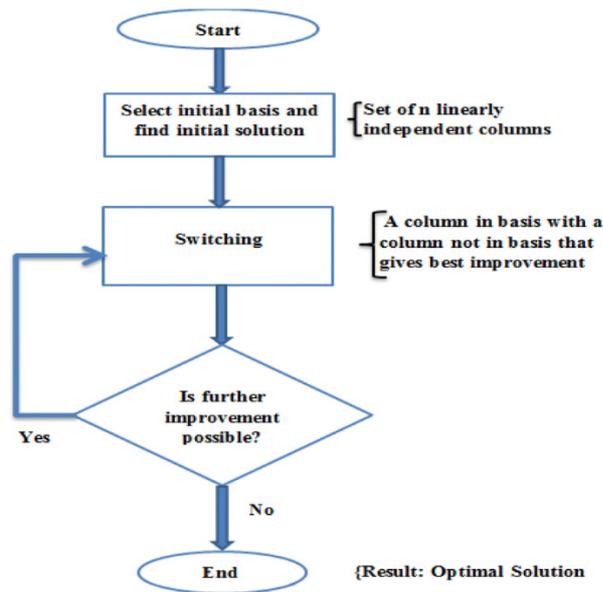
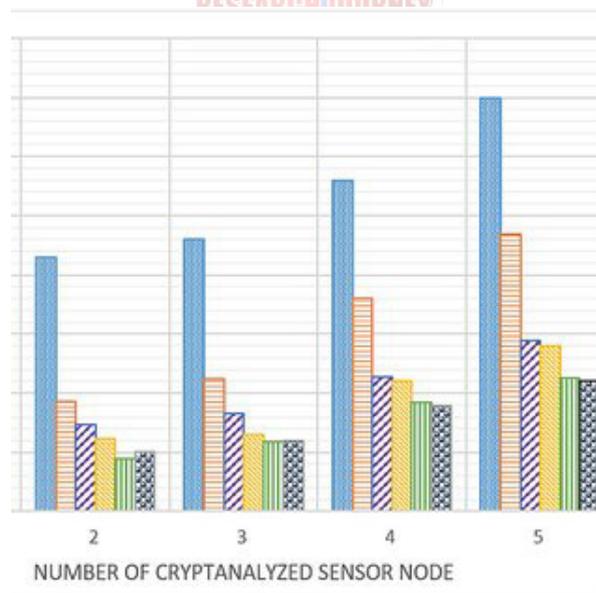


Figure 2

Flow chart for key management

A flag that represents working state will be set up with the help of rand function. If the flag was set to be 0 which means this sink node was dead, the function up_struct_property(data) as shown in Algorithm 3 would help to replace the dead sink node with a new one. Then the new sink node was picked up according to the node link distance. If the flag was set to be 1 which means the sink node worked as usual, nothing would be updated for this sink node, and it would continue the node communication.



2.5. Energy Efficiency Measurement

The calculation for the energy consumption in the network is processed during the nodes communication. So firstly, the communication source and destination should be identified which concerns the judgment process of the state of sink nodes. Then, work out the calculation method for the energy consumption which is based on the formula for path loss while nodes are communicating. Within the path loss formula, the communication distance is required. And this

will be achieved by the weighed shortest routing. Path loss is considered to measure the transmission loss in the topology as the energy consumption per sink node communication. Moreover, with the comparison between the initial energy of the network and total energy consumption, efficiency for the network is sure to be found out and go for optimizing. All the mentioned variables are summarized as follows.

Variables Definition PI: path loss for one time of communication among the sink nodes; : minimum transmission distance between nodes; : initial energy for the whole network; : energy efficiency of the network.

The energy efficiency of the network is measured by the PI between communication nodes pair, so the energy efficiency can be worked out as

3. Simulation Results

Analysis This section analyzes the proposed scheme and compares it with the other related approaches. Given a WSN, the amount of storage allocated for keys in each node is likely to be a preset constraint, which makes the size of the key ring m a fixed parameter. Once m is set, the choice of S will impact the security level and probability of key sharing among nodes in the network. Given a (S,m) -network, where each node is assigned m keys from a key pool of size S , the security level sl can be defined as follows: $sl = 1 - \frac{m}{S}$ (1) which gives the probability that a randomly chosen link is not compromised, when a node that is not either end of the link is compromised. For a fixed m , sl is proportional to S .

In key distribution schemes, resiliency against node capture measures how much of the network (its communication links) is compromised when a node is compromised. It is a critical performance measure that gauges the robustness of a solution. Our scheme as compared to other random key pre-distribution schemes is more resilient against node capture provided that compromised node re-enter into the network after the epoch in which network key has been refreshed. If a node gets compromised, it is possible for the adversary to know all the keys stored at that node. If we expect that the attacker requires a fixed amount of time to compromise the node, the network key would have changed to new one before the attacker could use the compromise keys.

Conclusions:

Key establishment, a fundamental building block in cryptography, is defined to be any process whereby a shared secret key becomes available to two or more parties, for subsequent cryptographic use. This paper proposes a variant of random key pre-distribution scheme for bootstrapping the clustered WSNs. Clustering approaches have been found useful in providing scalable data aggregation, security and coding for large scale WSNs. In our proposed scheme, we show that it is more resilient to node capture as compared to other random key distribution schemes provided that compromised node rejoin the network after the epoch in which network key has been refreshed. It also provides global and continuous authentication of nodes in the network by periodically refreshing the network key. Finally, it provides multiple level of encryption by using more than one encryption key and also secure cluster formation algorithm.

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Fluorescence Quenching Studies of Nitroaromatics, Using Sulphonic Acid Doped Polyaniline

Dr. Parvathi Patil

Department of Chemistry,
VG Women's College, Kalaburagi-585106, India.
Email – phbandoji10@gmail.com

Abstract:

Polyaniline (PANI) was synthesized by chemical oxidation method in the presence of ammonium persulfate as oxidant and para toluene sulfonic acid as dopant. In this study, fluorescence characteristics of polyaniline doped with acids in N,N Dimethyl Sulphoxide (DMSO) solvent is undertaken. The successful demonstration through fluorescence quenching of sulphonic acid PANI with NACs is envisaged with N,N Dimethyl Sulphoxide (DMSO) as solvent.

Quenching efficiency has been estimated by Stern–Volmer equation. The detection of quencher nitroaromatics is studied through the observed intense quenching of fluorescence signals in the emission spectra of the PTSA-PANI solution.

Keywords: polyaniline; Fluorescence quenching, sulfonic acids , Nitro aromatics

Introduction:

Conducting polymers play an important role in optoelectronics because of the delocalized electrons possessed by them provide a variety of useful properties including durable optical absorption and emission of electromagnetic radiation, photovoltaic response, reversible electrochemical switching and as efficient charge and exciton transporters.

Polyaniline is one of the most promising conjugated conducting polymers which have attracted more consideration because of its low cost, superior electrochemical performance, mechanical flexibility and relative ease of processing. Hence Polyaniline and its analogues find use in the field of device and actuators, super capacitors, electromagnetic shielding, corrosion protection, as well as electronic, electroluminescence and electrochromic devices². Because of this stretched conjugation intermolecular hydrogen bonds are formed between the amine and imine group of the neighbouring chain and π assembling occurs. The polymer chain becomes rigid which induces insolubility in most dynamic solvents. The processability of PANi can be improved by using functionalized dopants like Paratoluene sulfonic acid (PTSA) or Dodecyl Benzene Sulphonic Acid (DBSA) etc. The bulky dopants will reduce the mutual accumulation by increasing the solubility of PANi salt in non polar and weakly polar solvents³. P.K. Kahol et al. have shown that the dopants have no much effect on the electron localization length.

Polyaniline shows fluorescence characteristics due to the extended π conjugation and were used as selective fluorescent sensors for the detection of electron deficient nitroaromatics⁵ (NACs). Nitroaromatics are the prominent high energy materials which are being used as explosives and detonators etc. Yolanda et al. have reported an innovative sensing mechanism of nitroaromatic explosives using silica gated mesoporous hybrid materials¹⁰. The authors¹⁰ opined the basic principle of their work is electron rich Tetrathiafulvalenes (TTF) rupture caused due to an interaction with the electron deficient nitroaromatics (explosives) releases the entrapped dye thereby detecting through chromo fluorescence sensing. Due to extended π conjugation polymer backbone acts as a molecular wire and enables the rapid long range exciton migration

along the polymer backbone contributing to the increased sensitivity and amplified stimulating which aids in improving the detection limit as well as the response time^{6,7,8}. The π - π stacking in polymers which is responsible for sensitive fluorescence quenching is clearly explained by Gokcen Birlic Demirel et al.¹¹. The authors have sensed the NACs using polymer films. The concept of amplifying signal in conjugated polymers was first described by Swager and co-workers in 1995. Several sophisticated techniques using metal detector, ion mobility spectrometry (IMS) and X-ray diffraction are being currently used for NACs detection. Very recently fluorescence quenching based detection has attracted much attention due to their high sensitivity and selectivity. Detection limit in parts per billion and parts per trillion are achieved through photo induced electron transfer mechanism. The π - π stacking in polymers which is responsible for sensitive fluorescence quenching is clearly explained by Gokcen Birlic Demirel et al.¹¹. The authors have sensed the NACs using polymer films.

In this paper, we have reported the study on the effect of concentration of quencher on the fluorescence intensity of PTSA-PANi employing DMSO as solvent, and the study was carried out at room temperature. The fluorescence of PTSA-PANi has been quenched and quenching is in accordance with S-V relation. The S-V constant ($52.21 \times 10^3 \text{ M}^{-1}$) was obtained.

1. Experimental

1.1. Materials and Methods

The PTSA doped PANI is synthesized by chemical oxidation method employing ammonium Persulphate as an oxidizing agent. The quencher and solvent DMSO were of analytical grade and were used as received.

1.1.1. Preparation of PTSA doped PANI

Polyaniline was sieved and then washed with distilled water and remove oligomers until the liquid was colorless. Order to remove other organic by-products the precipitate was wash away with methanol. Finally, the resulting polymer salt was dried at 100°C in an oven until constant mass. Polyaniline base was prepared by de-doping ammonium sulphate salt (1 g), with constant stirring at ambient temperature in 100 ml of NH_4OH solution (1 M) for 12 hrs. The resultant solid was filtered and washed with water, follow by acetone and finally dried in an oven at 100°C until a constant mass. PANI (EB) was synthesized by solid state reaction using experimental procedure reported by Raghu et al.¹² with slight modification. Briefly,

PANI-PTSA was prepared by mixing. 0.006 M of emeraldine base with 0.003 M of PTSA using agate Mortar and pestle.

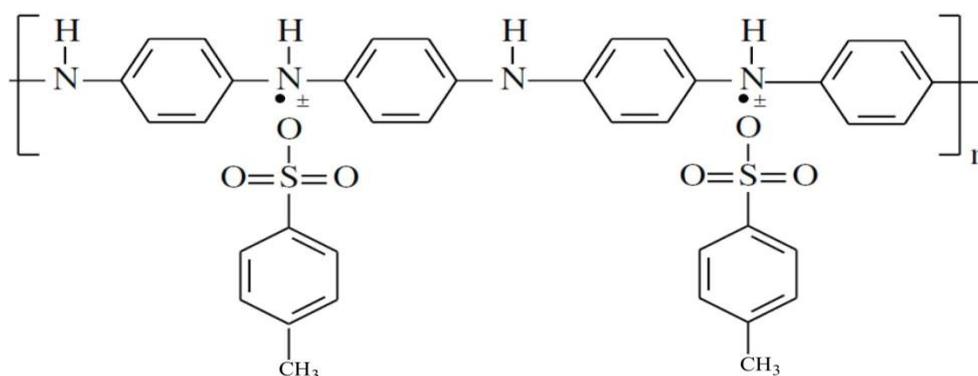


Figure-1: Chemical Structure of PANI-PTSA

1.1.2. Preparation of sample solutions:

Different concentrations of dilute solution of PTSA-PANI in DMSO are prepared to avoid absorption effects and the quencher concentration has been varied. The 100 ppm PTSA doped polyaniline in DMSO solution is prepared. The 100ppm of Para Nitro Aniline in DMSO is used as quencher.

1.1.3. Preparation of Sample solutions:

Diluted solutions of PTSA- PANI in DMSO are prepared to avoid self-preoccupation effects and the quencher concentration has been varied. A 100ppm PTSA-PANI in DMSO solution has been prepared by diluting the stock solution of 100ML. The 100 ppm paranitroaniline (PNA) in DMSO is used as quencher.

1.2. Instrument:

Fluorescence measurements are performed in CeNS Bangalore with HORIBA-FL-3-21 Spectrophotometer equipped with a Xenon arc lamp. the excitation and emission were fixed slit width at 5 nm. All measurements were made using 1 cm Quartz Cuvette at room temperature.

1.2.1. Quenching Experiments:

The fluorescence quenching experiments were carried out with 100 ppm PTSA-PANI solution in a quartz cell using DMSO as solvent. The fluorescence emission is measured by exciting the polymer at λ_{max} derived from the UV-Vis spectrum. The fluorescence quenching of PTSA-PANI has been carried out with Picric acid by keeping the concentration of PTSA-PANI constant while changing the concentration of paranitro aniline as given in the Table-.

PTSA-PANI shows an emission at 451 nm upon exciting at 397 nm and the fluorescence intensity of the polymer is effectively quenched upon addition of paranitroaniline(PNA) as shown in the figure-3 and its corresponding Stern -Volmer plot is shown in figure-4.

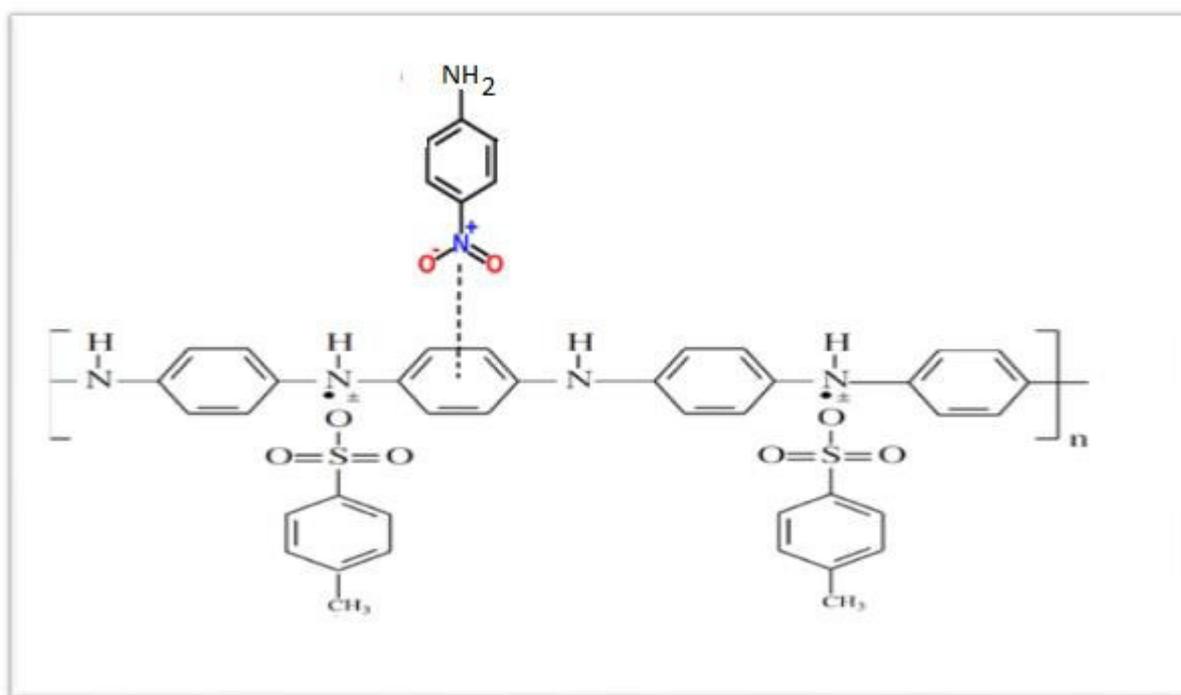


Figure-2: Schematic Representation of electron transfer from PTSA-PANI to Para NitroAniline

1.2.2 Fluorescence quenching of PTSA-PANI with Para Nitro Aniline:

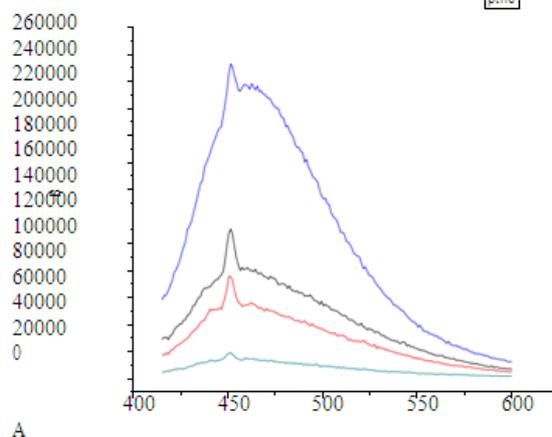


Figure-3: Fluorescence quenching of PTSA-PANI with Para Nitro Aniline

The polymer solution showed a maximum excitation wavelength at (λ_{ex}) 397nm and the emission wavelength was observed at (λ_{em}) 451nm. the fluorescence intensity 'I' was

A plot of I_0/I versus concentration of P NA is as shown in the figure 4

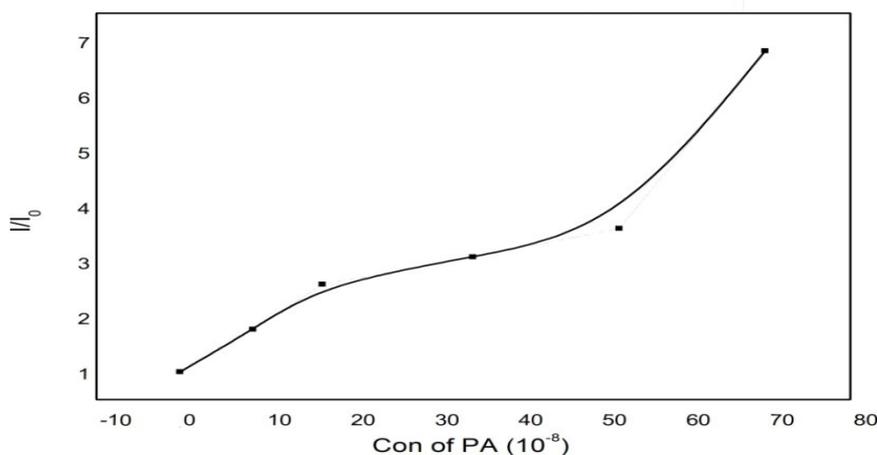


Figure 4: S-V plot between PTSA-PANI with varying concentration of PNA

Results and discussion, Fluorescence quenching studies

Figures 1 shows the fluorescence quenching of PTSA-PANI with Paranitroaniline. From the figure it is observed that the fluorescence intensity of the fluorophore (PTSA-PANI) decreased regularly with increasing concentration of quencher (PNA) but no change in the emission wavelength of PTSA-PANI is observed. This is due to quenching of the PTSA- PANi by PNA. The degree of quenching depends on the amount of quencher in a homogeneous solution¹¹. This indicates that the non radiative energy transfer between the animated donor (fluorophore) and the acceptor (quencher).

The kinetics of the quenching of polyaniline was studied by using S-V relation.

$$I_0/I = 1 + K_{sv} [Q]$$

Where I_0 and I are the fluorescence intensity in the absence and presence of quencher, $[Q]$ is

the concentration of quencher and K_{sv} is the Stern Volmer constant. The plot of I_0/I versus the concentration of quencher is called stern Volmer plot is shown in the figure 2. The proficiency of the quencher is given by the slope of the stern Volmer plot. Higher the value of K_{sv} lower is the concentration of quencher required to quench the fluorescence and vice versa. S-V constants are evaluated from the linear part of the quenching curve for low quencher concentration¹².

S-V plot for a conjugated polymer show a positive aberration from linearity with the increase in concentrations of quencher due to aggregation of the polymer¹¹. The π - π stacking in polymers which is responsible for sensitive fluorescence quenching is clearly explained by Gokcen Birlic Demirel et al. The authors have sensed the NACs using polymer films Accumulation can enhance quenching both by extending the exciton path, so that it can sample more obligatory sites and by static and self quenching of polymer chains¹³. The departure from linearity in S-V plot, suggests that quenching mechanism is collisional because conjugated polymers do not have excited states with sufficiently long lifetime.

Sensing Mechanism:

In PANI the repeating units are electronically coupled to form prolonged pi-conjugation, the interaction between the orbitals creates a semiconductor band structure having valence and conduction band. On photoexcitation, the electrons from the valence band (LUMO) are excited to the conduction band (HOMO) and leave a hole in the valence band. The hole- electron pair is called exciton which drifts along the polymer's backbone freely over several repeat units and creates molecular wire effect¹ which is an important feature essential for enlarged quenching and the exciton travels over many different receptor sites and comes back to the ground state with the emission of radiation as fluorescence. But in the presence of quenchers like Nitroaromatics in solution, the quencher, and the polymer form a weak excimer complex. This static suggestion prevents the transfer of electron on the conjugated chain, and electrons are transferred to LUMO of quencher which is less energetic than the ground state of polymer and lies in between HOMO and LUMO of PANI. The electrons come back to the ground state with the non-radiative process resulting in marked decrease fluorescent intensity of conjugated polymer¹¹ indicating a possibility of energy transfer from the energy donor PANI host to the energy acceptor Picric acid. With the increase in the number of electron deficient nitro (NO_2) groups, electron transfer from the polymer to the analyte becomes thermodynamically more achievable.

The fluorescence quenching mechanism was explained using semiconductor band theory proposed by Chen et al.

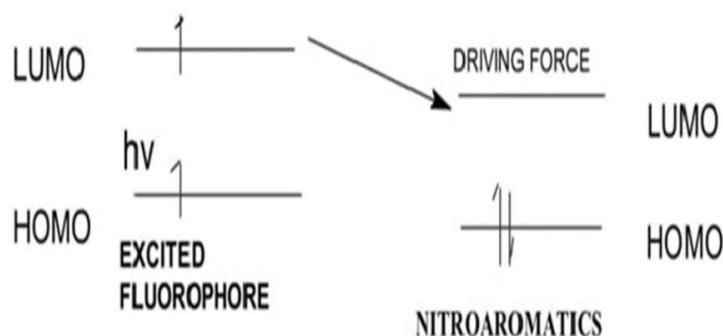


Figure-5: Band diagram showing electron transmission from conjugated polymer to electron lacking Nitro Aromatics during fluorescence quenching In general, the fluorescence quenching of any device upon binding with analyte can follow two dissimilar mechanisms such as static and

dynamic quenching. Quenching via static mechanism is expected not to distress the excited-state life-time of fluorophore and in contrast, dynamic quenching does affect the life-time of fluorophore.

In static quenching, complexation occurs between the excited fluorophore and the ground state of the quenching types. In this mechanism, quenching of the excited fluorophore by the complex quencher transpires upon contamination. Due to the little lifetimes they only display static quenching. General mechanism of fluorescence quenching-based discovery basically involves the formation of a donor–acceptor charge-transfer complex between quencher and fluorophore have electron deficient acceptors via π – π interactions and the π -electron rich donors. Fluorescence passion changes acutely in fluorescent conjugated polymers, because of their magnification effect. When Nitro aromatics explosives contact with the conjugated polymers, charge assignment will occur between the electron-poor nitro aromatics¹⁷ quenchers and electron-rich polymers. After the binding sites in conjugated polymers are occupied by nitro aromatics quick-tempered molecules, the electrons do not transfer anymore, so the fluorescence intensity of the system decreases sharply¹.

Conclusion:

The S-V plot has clearly given the information about the static quenching of PTSA doped Polyaniline with Picric acid. The applicability of PTSA-PANI is producing electronic movements may be given a peek in devising devices to detect High Energy Materials with nitro efficient groups.

The attention of the study herein was to produce processable conjugated polymers with probable for use in sensing. Polyaniline (PANI) doped with functionalized dopants like Para toluene sulfonic acid is synthesized by chemical oxidation method to increase the processability. The synthesized PANI was soluble in polar solvents like), N-Methyl pyrrolidine (NMP). Dimethyl sulfoxide (DMSO) Dimethyl formamide (DMF).

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National Education Policy 2020 : An Initiative to Transform India

Dr. Kailas Maruti Pote

Head, Department of English,

Late Abasaheb Kakade Arts College, Bodhegaon, Tal- Shevgaon,

Dist- Ahmednagar, 414503

Introduction :

Policy is a deliberate system of guidelines to guide decisions and achieve rational outcomes. A policy is a statement of intent and is implemented as a procedure or protocol. Policies can assist in both subjective and objective decision making. Before talking of NEP2020 it becomes necessary to throw some light on the previous policies. Minute on Education (1835) by Thomas Babington Macaulay. He expressed the intention as “I feel with them that it is impossible for us, with our limited means, to attempt to educate the body of the people. We must at present do our best to form a class who may be interpreters between us and the millions whom we govern,...a class of persons Indian in blood and color, but English in tastes, in opinions, in morals and in intellect”.

First, National policy on Education was introduced by the Government of India by Prime Minister Indira Gandhi in 1968, which focused on literacy, adult education, and free education up to 14. 2nd NEP was introduced by Prime Minister Rajiv Gandhi in 1986, (ECCE, Navodaya, Vocational, Technical, Sports, Culture, Teacher training, Distance Education). 3rd NEP by Prime Minister Narendra Modi in 2020 with an intention to 4th SDG that is Quality Education (UNO), to set in motion national aspirations (Being Indian), interdisciplinary education, vocational training and skill education. The global education development agenda reflected in the Goal 4 (SDG4) and agenda for Sustainable Development, adopted by India in 2015 - seeks to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” by 2030.

Propose:

The purpose of the education system is to develop good human beings capable of rational thought and action, possessing compassion and empathy, courage and resilience, scientific temper and National Education Policy 2020 5 creative imagination, with sound ethical moorings and values. It aims at producing engaged, productive, and contributing citizens for building an equitable, inclusive, and plural society as envisaged by our Constitution.

A good education institution is one in which every student feels welcomed and cared for, where a safe and stimulating learning environment exists, where a wide range of learning experiences are offered, and where good physical infrastructure and appropriate resources conducive to learning are available to all students. Attaining these qualities must be the goal of every educational institution. However, at the same time, there must also be seamless integration and coordination across institutions and across all stages of education.

- Recognizing, identifying, and fostering the unique capabilities of students.
- To achieve Foundational Literacy and Numeracy by all students by Grade 3.
- Flexibility, No hard separations between arts and sciences, between curricular and extra-curricular activities, between vocational and academic streams.
- To ensure the unity and integrity of all knowledge, sciences, social sciences, arts, humanities, and sports.

- Emphasizes conceptual understanding rather than rote learning-for-exams; creativity and critical thinking to encourage logical decision-making and innovation,
- Promoting multilingualism, life skills such as communication, cooperation, teamwork and resilience;
- Formative assessment for learning rather than the summative assessment.
- Synergy in curriculum across all levels of education (ECCE, Secondary, Higher education).
- Teacher’s recruitment and continuous professional development.
- ‘light but tight’ regulatory framework to ensure integrity, transparency, and resource efficiency of the educational system through audit and public disclosure while encouraging innovation and out-of-the-box ideas through autonomy, good governance, and empowerment.
- Substantial investment I education, public, private and community participation.

Vision

Vision of the policy is to instill among the learners a deep-rooted pride in being Indian, not only in thought, but also in spirit, intellect, and deeds, as well as to develop knowledge, skills, values, and dispositions that support responsible commitment to human rights, sustainable development and living, and global well-being, thereby reflecting a truly global citizen.

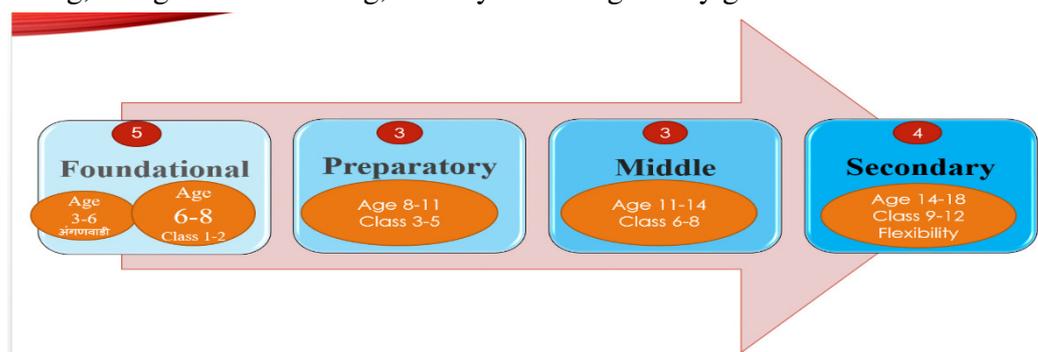


Fig.1

Key Features of Foundation

Early Childhood Care and Education (ECCE) will be developed. NCERT will develop framework in two parts- sub-framework for 0-3 year-olds, and a sub-framework for 3-8 year-olds. It consist of multi-faceted, multi-level, play-based, activity-based, and inquiry-based learning, comprising of alphabets, languages, numbers, counting, colors, shapes, indoor and outdoor play, puzzles and logical thinking, problem-solving, drawing, painting and other visual art, craft, drama and puppetry, music and movement. It also includes a focus on developing social capacities, sensitivity, good behavior, courtesy, ethics, personal and public cleanliness, teamwork, and cooperation etc. It will help to attain optimal outcomes in the domains like physical and motor development, cognitive development, socio-emotional-ethical development, cultural/artistic development, and the development of communication and early language, literacy, and numeracy. Anganwadi Centres will be strengthened with high-quality infrastructure, play equipment, and well-trained Anganwadi workers/teachers. Children in Anganwadi Centres shall take activity-filled tours - and meet the teachers and students of their local primary schools, in order to make the transition from Anganwadi Centres to primary

schools a smooth one. Prior to the age of 5 every child will move to a “Preparatory Class” or “Balavatika” (that is, before Class 1), which has an ECCE-qualified teacher. Anganwadi workers/teachers with qualifications of 10+2 and above shall be given a 6-month certificate programme in ECCE. Those with lower educational qualifications shall be given a one-year diploma programme covering early literacy, numeracy, and other relevant aspects of ECCE.

- These programme may be run through digital/distance mode using DTH channels as well as smartphones, allowing teachers to acquire ECCE qualifications with minimal disruption to their current work.
- Continuous Professional Development (CPD) of teachers through DIKSHA and SWAYAM.
- ECCE will also be introduced in Ashra8mshalas in tribal-dominated areas.
- Every student will attain foundational literacy and numeracy by Grade 3. The highest priority of the education system will be to achieve universal foundational literacy and numeracy in primary school by 2025.
- A pupil-teacher ratio (PTR) of under 30:1 will be ensured at the level of each school; areas having large numbers of socio-economically disadvantaged students will aim for a PTR of under 25:1.
- A national repository of high-quality resources on foundational literacy and numeracy will be made available on the Digital Infrastructure for Knowledge Sharing (DIKSHA).
- Peer-tutoring, peer-teaching, peer-assessment.
- All school children shall undergo regular National Education Policy 2020 10 health check-ups especially for 100% immunization in schools and health cards will be issued to monitor the same.
- Sarva Shiksha Abhiyan (now the Samagra Shiksha)
- National Institute of Open Schooling (NIOS) and State Open Schools (SOS) will be expanded and strengthened for meeting the learning needs of young people in India who are not able to attend a physical school.
- The programs will be offered in addition to the present programme: A, B and C levels that are equivalent to Grades 3, 5, and 8 of the formal school system;
- Secondary education programme that are equivalent to Grades 10 and 12; vocational education courses/programme; and adult literacy and life-enrichment programme.
- States will be encouraged to develop these offerings in regional languages by establishing new/strengthening existing State Institutes of Open Schooling (SIOS).(YCMOU)
- Students would continue to have the option of exiting after Grade 10 and re-entering in the next phase to pursue vocational or any other courses available in Grades 11- 12, including at a more specialized school, if so desired.
- **Experiential learning** - will be adopted, including hands-on learning, arts-integrated and sports-integrated education, story-telling-based pedagogy, among others, as standard pedagogy within each subject, and with explorations of relations among different subjects.
- There will be no hard separation among ‘curricular’, ‘extracurricular’, or ‘co-curricular’, among ‘arts’, ‘humanities’, and ‘sciences’, or between ‘vocational’ or ‘academic’ streams.

- Subjects such as physical education, the arts and crafts, and vocational skills, in addition to science, humanities, and mathematics will be incorporated in curriculum.
- Wherever possible, the medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother tongue/local language/regional language.
- The three-language formula will continue to be implemented.
- Sanskrit will be offered at all levels of school and higher education as an important, enriching option for students, including as an option in the three-language formula.
- **Integration of Essential Subjects, Skills, and Capacities-** mathematics, mathematical and computational thinking will be very important for India 's future and India's leadership role in the numerous upcoming fields and professions that will involve artificial intelligence, machine learning, and data science, etc.
- Every student will take a fun course, during Grades 6-8,
- All students will participate in a 10-day bagless period sometime during Grades 6-8 where they intern with local vocational experts such as carpenters, gardeners, potters, artists, etc. Similar internship opportunities to learn vocational subjects may be made available to students throughout Grades 6-12, including holiday periods.
- An engaging course on Indian Knowledge Systems will also be available to students in secondary school as an elective.
- All curriculum and pedagogy, from the foundational stage onwards, will be redesigned to be strongly rooted in the Indian and local context and ethos in terms of culture, traditions, heritage, customs, language, philosophy, geography, ancient and contemporary knowledge, societal and scientific needs, indigenous and traditional ways of learning etc. – in order to ensure that education is maximally relatable, relevant, interesting, and effective for our students.
- NCERT will form National Curricular Framework for School Education.
Assessment
- The progress card of all students for school-based assessment will be completely redesigned under guidance from the proposed National Assessment Centre, NCERT, and SCERTs.
- The progress card will be a holistic, 360-degree, multidimensional report that reflects in great detail the progress as well as the uniqueness of each learner in the cognitive, affective, and psychomotor domains.
- It will include self-assessment and peer assessment, and progress of the child in project-based and inquiry-based learning, quizzes, role plays, group work, portfolios, etc., along with teacher assessment.
- The progress card would also provide teachers and parents with valuable information on how to support each student in and out of the classroom.
- AI-based software could be developed and used to track the growth through their school years based on learning data and interactive questionnaires for parents, students, and teachers, in order to provide students with valuable information on their strengths, areas of interest, and needed areas of focus, and to thereby help them make optimal career choices.

- Board exams for Grades 10 and 12 will be continued, the existing system of Board and entrance examinations shall be reformed to eliminate the need for undertaking coaching classes.
- Board exams will also be made 'easier', in the sense that they will test primarily core capacities/competencies rather than months of coaching and memorization;
- Students will be allowed to take Board Exams on up to two occasions during any given school year, one main examination and one for improvement, if desired.
- Some possibilities include: a system of annual/semester/modular Board Exams could be developed - that each test far less material, and are taken immediately after the corresponding course is taken in school.
- Board exams in certain subjects could be redesigned to have two parts – one part of an objective type with multiple-choice questions and the other of a descriptive type.
- School examinations in Grades 3, 5, and 8 which will be conducted by the appropriate authority apart from board exam of 10th and 12th.
- Proposed a **National Assessment Centre, PARAKH** (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development),
- State Achievement Survey (SAS) and the National Achievement Survey (NAS) will monitor the achievement of learning outcomes.
- **National Testing Agency (NTA)** will work to offer a high-quality common aptitude test, as well as specialized common subject exams in the sciences, humanities, languages, arts, and vocational subjects, at least twice every year. University will be able to see each student's individual subject portfolio and admit students into their programme based on individual interests and talents.

Continuous Professional Development (CPD)

- Each teacher will be expected to participate in at least 50 hours of CPD opportunities every year for their own professional development, driven by their own interests.
- School Principals and school complex leaders will also be expected to participate in 50 hours or more of CPD modules per year, covering leadership and management, as well as content and pedagogy with a focus on preparing and implementing pedagogical plans based on competency-based education.
- **Career Management and Progression (CMP)**
- A system of multiple parameters for proper assessment of performance will be developed for the same by State/UT Governments that is based on peer reviews, attendance, commitment, hours of CPD, and other forms of service to the school and the community or based on NPST (National Professional Standards for Teachers)
- **Tenure (Services after Confirmation) and Tenure track (Probation).**
- National Professional Standards for Teachers (NPST) will be developed by 2022, by the National Council for Teacher Education in its restructured new form as a Professional Standard Setting Body (PSSB) under the General Education Council (GEC).
- It will also comprise standards for performance appraisal, for each stage, that would be carried out on a periodic basis.
- By 2030, the minimum degree qualification for teaching will be a 4-year integrated B.Ed.
- 2-year B.Ed. programme will also be offered, by the same multidisciplinary institutions offering the 4-year integrated B.Ed., and will be intended only for those who have

already obtained Bachelor's Degrees in other specialized subjects. These B.Ed. programme may also be suitably adapted as 1-year B.Ed. programme, and will be offered only to those who have completed the equivalent of 4-year multidisciplinary Bachelor's Degrees or who have obtained a Master's degree in a specialty and wish to become a subject teacher in that specialty.

- Master instructors, post B.Ed. Certification Courses.
- National Curriculum Framework for Teacher Education, NCFTE 2021, will be formulated by the NCTE in consultation with NCERT. (Revised once in every five year)

Efficient Resourcing and Effective Governance through School Complexes/Clusters

- These challenges will, by 2025, be addressed by State/UT governments by adopting innovative mechanisms to group or rationalize schools.
- School Complex Management Committee.
- First, the DSE will devolve authority to the school complex/cluster, which will act as a semi-autonomous unit.
- The District Education Officer (DEO) and the Block Education Officers (BEO) will interact primarily with each school complex/cluster as a single unit and facilitate its work.
- The complex itself will perform certain tasks delegated by the DSE and will deal with the individual schools within it.
- The school complex/cluster will be given significant autonomy by the DSE to innovate towards providing integrated education and to experiment with pedagogies, curriculum, etc., while adhering to the National Curricular Framework (NCF) and State Curricular Framework (SCF).
- National Professional Standards for Teachers (NPST) will be developed by 2022, by the National Council for Teacher Education in its restructured new form as a Professional Standard Setting Body (PSSB) under the General Education Council (GEC).
- It will also comprise standards for performance appraisal, for each stage, that would be carried out on a periodic basis.
- By 2030, the minimum degree qualification for teaching will be a 4-year integrated B.Ed.
- 2-year B.Ed. programmes will also be offered, by the same multidisciplinary institutions offering the 4-year integrated B.Ed., and will be intended only for those who have already obtained Bachelor's Degrees in other specialized subjects. These B.Ed. programmes may also be suitably adapted as 1-year B.Ed. programmes, and will be offered only to those who have completed the equivalent of 4-year multidisciplinary Bachelor's Degrees or who have obtained a Master's degree in a specialty and wish to become a subject teacher in that specialty.
- Master instructors, post B.Ed. Certification Courses.
- National Curriculum Framework for Teacher Education, NCFTE 2021, will be formulated by the NCTE in consultation with NCERT. (Revised once in every five year)
- Schools will develop their plans (SDPs) with the involvement of their SMCs. These plans will then become the basis for the creation of School Complex/Cluster Development Plans (SCDPs)
- BEO, will endorse and confirm the SCDP of each school complex. It will then provide the resources (financial, human, physical, etc.) necessary to achieve the SCDPs, both short-term (1-year) and long-term (3-5 years).

- Twinning/pairing of one public school with one private school will be adopted across the country.
- **Standard-setting and Accreditation for School Education-** Department of School Education, Directorate of School Education including the offices of the DEO and BEO, etc.
- State School Standards Authority (SSSA). The SSSA will establish a minimal set of standards based on basic parameters (safety, security, basic infrastructure, number of teachers across subjects and grades, financial probity, and sound processes of governance)
- SCERT will develop a School Quality Assessment and Accreditation Framework (SQAAF)
- National Achievement Survey (NAS) of student learning levels will be carried out by the proposed new National Assessment Centre, PARAKH.
- Public and private schools (except the schools that are managed/aided/controlled by the Central government) will be assessed and accredited on the same criteria, benchmarks, and processes.

Higher Education

- At least one model HEI in or near every district
- Multidisciplinary undergraduate education;
- Prone towards faculty and institutional autonomy
- Governance of HEIs by high qualified independent boards having academic and administrative autonomy;
- National Research Foundation to fund outstanding peer-reviewed research and to actively seed research in universities and colleges;
- Public-Private and Industry tie-ups.
- HEI clusters is thus the highest recommendation of this policy regarding the structure of higher education.
- Autonomous degree-granting Colleges could evolve into Research-intensive or Teaching-intensive Universities, if they so aspire.
- Every college would develop into either an Autonomous degree-granting College, or a constituent college of a university - in the latter case, it would be fully a part of the university.
- The Accreditation System will develop and use appropriately different and relevant norms across this range of HEIs.
- All HEIs will firstly plan to become multidisciplinary by 2030.
- By 2040, all higher education institutions (HEIs) shall aim to become multidisciplinary institutions and shall aim to have larger student enrolments preferably in the thousands.
- Enrolment Ratio in higher education including vocational education from 26.3% (2018) to 50% by 2035.
- There will be a fair and transparent system for determining increased levels of public funding support for public HEIs.
- Institutions will have the option to run Open Distance Learning (ODL) and online programmes.

- Top institutions accredited for ODL will be encouraged and supported to develop high-quality online courses.
- Single-stream HEIs will be phased out over time.
- Through the attainment of suitable accreditations, all HEIs will gradually move towards full autonomy - academic and administrative.
- The autonomy of public institutions will be backed by adequate public financial support and stability.
- Gradually phasing out the system of 'affiliated colleges' over a period of fifteen years through a system of graded autonomy, and to be carried out in a challenge mode.
- Assessments of educational approaches in undergraduate education that integrate the humanities and arts with Science, Technology, Engineering and Mathematics (STEM)
- Imaginative and flexible curricular structure offers multiple entry and exit points.
- Curriculam of all HEIs shall include credit-based courses and projects in the areas of community engagement and service, environmental education, and value-based education.
- Global Citizenship Education (GCED).
- Internshala and Internship
 - Under Graduate Degree Structure
- Undergraduate degree will be of either 3 or 4-year duration, with multiple exit options within this period, with appropriate certifications.
- A certificate after completing 1 year in a discipline or field including vocational and professional areas,
- a diploma after 2 years of study,
- a Bachelor 's degree after a 3-year programme,
- An Academic Bank of Credit (ABC) shall be established which would digitally store the academic credits earned from various recognized HEIs.
- 4-year programme may also lead to a degree 'with National Education Policy 2020 38 Research' if the student completes a rigorous research project in their major areas of study as specified by the HEI.

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Intuitionistic Vague Set

Pritam Vijaysigh Patil

Department of Mathematics,

Shivaji University, Kolhapur, P.O.Box 416004, Kolhapur, India,

Sanjay Ghodawat University, Kolhapur, P.O.Box 416118, Atigre, India

Email: mailme.prit@rediffmail.com

Abstract.

In this paper author defines three membership functions on the set like fuzzy and vague sets. Author explains three different membership functions through two examples in daily life. Using these three membership functions viz., truth, false and non-membership grades author define an Intuitionistic vague set. AMS (MOS) Subject Classification Codes: 03G25, 06F35, 03E72. Key Words: Vague sets, fuzzy sets, Intuitionistic sets, Intuitionistic vague sets.

1. Introduction:

In the field of Mathematics different kinds of sets are defined by different researchers by defining membership functions on the sets. Firstly, only one membership function is defined on sets by Zadeh [15] and fuzzy sets are formed in 1965. Atanassov[4] defined two membership functions as degree of membership functions and degree of non-membership function in 1986 and formed Intuitionistic fuzzy sets. Also, he gave lots of properties and related concepts on it within some years. While Gau and Buehrer[18] defined two membership functions on the sets as truth and false membership functions and vague sets are formed in 1993. Vague set shows the difference in evidence of membership and evidence against membership. After looking at their research Bustince and Burilo[3] wrote one short communication as “Vague sets are intuitionistic fuzzy sets”. But in an intuitionistic fuzzy set we have truth membership and non-membership function and in vague set truth and false membership functions. Actually, these two sets are different generalizations of fuzzy set. An Lu and Wilfred Ng[1] wrote an article on “Vague sets or Intuitionistic fuzzy sets for handling vague data : which one is better?”. In this article they have mentioned difference between vague set and intuitionistic fuzzy set through examples. Actually, they mentioned that both are equivalent but vague set consider more specific conditions. They have given a conclusion that vague sets are more expressive than intuitionistic fuzzy sets in the handling vague data. Vague sets give more specific information than intuitionistic fuzzy sets. Though intuitionistic fuzzy sets are also more useful in some situations as it mentions information of degree of membership and non-membership values of the given data. Smarandache[2] generalized intuitionistic fuzzy sets, paraconsistent sets and vague sets to define Neutrosophic sets in 2003. Actually, Neutrosophic set describes more about uncertainty and indeterminacy of the data.

2. Preliminaries

Let us see some required definitions as follows:

Definition 2.1. [15] A fuzzy set A in U is defined as the set of ordered pairs $A = \{(u, \mu_A(u))/u \in U\}$, where $\mu_A(u)$ is the grade of membership function of the element u in the set A .

Definition 2.2. [4] An intuitionistic fuzzy set $A = \{(u, \mu_A(u), \nu_A(u))/u \in U\}$ in the universe of discourse U is characterized by membership functions $\mu_A(u)$ and a non-membership function ν_A as follows:

$t_A : U \rightarrow [0, 1]$, and $v_A : U \rightarrow [0, 1]$ such that $0 \leq \mu_A(u) + v_A(u) \leq 1$.

Definition 2.3. [18] A vague set A in the universe of discourse U is characterized by two membership functions given by :

- (1) A truth membership function $t_A : U \rightarrow [0, 1]$, and
- (2) A false membership function $f_A : U \rightarrow [0, 1]$,

where $t_A(u)$ is a lower bound of the grade of membership of u derived from the “evidence for u ”, and $f_A(u)$ is a lower bound on the negation of u derived from the “evidence against u ”, and $t_A(u) + f_A(u) \leq 1$.

3. Intuitionistic Vague Set

Progressively researchers defined different sets by defining membership functions based on certain needs or to know more precise information of the data. In this paper author going to define three different membership functions for an intuitionistic vague set viz., truth membership, false membership function and false membership function for the given date. First, we will see why to define three membership functions through following examples:

Example 3.1. Production factory: In a production factory, we mainly focus on non-defective products but due to some reasons it's not always possible to get non-defective products or always for 24 hours and 365 days production is taking place in the factory. So, for a good profit we have to take care of defective products and no production period.

Now let us consider some of the following cases:

- (1) Non-defective production is taking place of all the products. So here we can say that truth membership value is 1 and remaining two values are 0. i. e. for the order of say 100 bolts, all bolts produced by factory are non-defective.
- (2) Few materials are defective, so we can say that factory is producing material but needs to trace the reasons of getting defective material like machinery faults or workers are not well trained etc. So here false membership value can be decided between 0 to 1 as per the number of defective materials.
- (3) There can be some period where the production is not taking place due to some reasons. So, we cannot achieve the targets. So here we can decide non-membership value of production as per the quantity of pending production material.

Let us try this with particular example. Suppose one factory is producing bolts of machine. Daily it remains open for 18 hours only and workers don't work at night. Usually, factory used to get different consignments of bolts. One day they got one consignment of 1000 bolts which has to be complete within 24 hours. So, they started a production and after 18 hours the status is like only 800 bolts were ready out of which 700 bolts were non-defective and 100 were defective and 200 were pending. The factory time was over but the consignment was incomplete. So, owner or manager can take decision of asking overtime to complete the order. At this stage we can decide membership values by applying here Intuitionistic vague sets as $t_B(c) = 0.7$, $f_B(c) = 0.1$ & $\lambda_B(c) = 0.2$. Here c is used for consignment and B is used for the set of production of bolts. So, factory may get so many such consignments based by improving the quality of material and work speed based on these membership values. Once we see these membership values, we can decide what action should be taken to achieve the goal.

Example 3.2. Let us see second example in the field of education. Being a professor or teacher or parent always we used to be concern about progress of our students. One way of checking

progress of students is exams. After teaching we used to assess students using different methods like written tests, presentations, quizzes, games, orals etc. Let us take a batch of 10 students who attempted written test of Mathematics for 30 marks. The marks are given as below:

R. N.	Scored marks of right answers	Lost marks of wrong answers	Lost marks of unattempted questions
1	30	00	00
2	9	9	12
3	12	9	9
4	18	12	00
5	12	00	18
6	24	06	00
7	21	3	06
8	0	15	15
9	0	30	00
10	00	00	30

Let us define membership values for the Mathematics subject for each student from roll number 1 to 10. In the table given below $t_M(x)$ denotes the membership value of marks scored for right answers, $f_M(x)$ denotes the membership value of marks lost due to wrong answers and $\lambda_M(x)$ denotes the membership value of marks lost for unattempted questions. We can prepare table of membership values for above table as follows:

x .	$t_M(x)$	$f_M(x)$	$\lambda_M(x)$
1	1	0	0
2	0.3	0.3	0.4
3	0.4	0.3	0.3
4	0.6	0.4	0
5	0.4	0	0.6
6	0.8	0.2	0
7	0.7	0.1	0.2
8	0	0.5	0.5
9	0	1	0
10	0	0	1

Analysis can be done by using these membership values so that actions can be taken. By observation we get 6 students are passed out of 10, one has not attempted a single question so we need to analyse the reasons behind it. Remaining 3 of which have scored zero marks so we need to focus on them. These 3 students have written some wrong answers means there may be a possibility of some are confused while writing answers. We can give them some more attention and guidance for the same so that they can learn it in a better way and can pass. one student who kept answer sheet blank, we can teach through tutorial or remedial sessions. By observing membership table, we verify that, $t_M(x) + f_M(x) + \lambda_M(x) = 1$ and $t_M(x), f_M(x), \lambda_M(x) \in [0, 1]$.

By looking at the membership table we get more precise information about the status of the students, how much they have understood. If we relate attainment of course learning outcomes with these membership values we come to know where to work more for better understanding of students.

Let us define an intuitionistic vague set as follows:

Definition 3.3. An intuitionistic vague set

$A = \{(u, \mu_A(u), \nu_A(u), \lambda_A(u)) / u \in U\}$ in the universe of discourse U is characterized by truth membership function $\mu_A(u)$, false membership function $\nu_A(u)$ and a non-membership function $\lambda_A(u)$ as follows:

$t_A : U \rightarrow [0, 1]$, $f_A : U \rightarrow [0, 1]$ and $\lambda_A : U \rightarrow [0, 1]$ such that

$t_A(u) + f_A(u) + \lambda_A(u) = 1$.

By using this definition of Intuitionistic vague set, we can define other required definitions carefully as we are dealing with three different kind of membership functions.

4. Conclusions:

In this paper, the Intuitionistic vague set is defined using three different membership functions through two examples of production of factory and education.

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Machine Learning Approach for Diabetes Prediction

S. Ramya¹, Dr. D. Kalaivani²

¹ Research Scholar (FT), Department of Computer Science, Dr. SNS Rajalakshmi College of Arts and Science, Coimbatore – 49.

² Associate Professor & Head, Department of Computer Technology, Dr. SNS Rajalakshmi College of Arts & Science, Coimbatore 49.

Abstract:-

Diabetes is an illness caused because of high glucose level in a human body. Diabetes should not be ignored if it is untreated then Diabetes may cause some major issues in a person like: heart related problems, kidney problem, blood pressure, eye damage and it can also affects other organs of human body. Diabetes can be controlled if it is predicted earlier. To achieve this goal this project work we will do early prediction of Diabetes in a human body or a patient for a higher accuracy through applying, Various Machine Learning Techniques. Machine learning techniques Provide better result for prediction by constructing models from datasets collected from patients. In this work we will use Machine Learning Classification and ensemble techniques on a dataset to predict diabetes. Which are K-Nearest Neighbor (KNN), Logistic Regression (LR), Decision Tree (DT), Support Vector Machine (SVM), Gradient Boosting (GB) and Random Forest (RF). The accuracy is different for every model when compared to other models. The Project work gives the accurate or higher accuracy model shows that the model is capable of predicting diabetes effectively. This Result shows that Random Forest achieved higher accuracy compared to other machine learning techniques.

Keywords: Diabetes, Machine, Learning, Prediction, Dataset, Ensemble

I. Introduction:

Diabetes is noxious diseases in the world. Diabetes caused because of obesity or high blood glucose level, and so forth. It affects the hormone insulin, resulting in abnormal metabolism of crabs and improves level of sugar in the blood. Diabetes occurs when body does not make enough insulin. According to (WHO) World Health Organization about 422 million people suffering from diabetes particularly from low or idle income countries. And this could be increased to 490 billion up to the year of 2030. However prevalence of diabetes is found among various Countries like Canada, China, and India etc. Population of India is now more than 100 million so the actual number of diabetics in India is 40 million. Diabetes is major cause of death in the world. Early prediction of disease like diabetes can be controlled and save the human life. To accomplish this, this work explores prediction of diabetes by taking various attributes related to diabetes disease. For this purpose we use the Pima Indian Diabetes Dataset, we apply various Machine Learning classification and ensemble Techniques to predict diabetes. Machine Learning Is a method that is used to train computers or machines explicitly. Various Machine Learning Techniques provide efficient result to collect Knowledge by building various classification and ensemble models from collected dataset. Such collected data can be useful to predict diabetes. Various techniques of Machine Learning can capable to do prediction, however it's tough to choose best technique. Thus for this purpose we apply popular classification and ensemble methods on dataset for prediction.

II. Literature Review:

K.VijayaKumar et al. [11] proposed random Forest algorithm for the Prediction of diabetes develop a system which can perform early prediction of diabetes for a patient with a higher accuracy by using Random Forest algorithm in machine learning technique. The proposed model gives the best results for diabetic prediction and the result showed that the prediction system is capable of predicting the diabetes disease effectively, efficiently and most importantly, instantly. Nonso Nnamoko et al. [13] presented predicting diabetes onset: an ensemble supervised learning approach they used five widely used classifiers are employed for the ensembles and a meta-classifier is used to aggregate their outputs. The results are presented and compared with similar studies that used the same dataset within the literature. It is shown that by using the proposed method, diabetes onset prediction can be done with higher accuracy. Tejas N. Joshi et al. [12] presented Diabetes Prediction Using Machine Learning Techniques aims to predict diabetes via three different supervised machine learning methods including: SVM, Logistic regression, ANN. This project proposes an effective technique for earlier detection of the diabetes disease. Deeraj Shetty et al. [15] proposed diabetes disease prediction using data mining assemble Intelligent Diabetes Disease Prediction System that gives analysis of diabetes malady utilizing diabetes patient's database. In this system, they propose the use of algorithms like Bayesian and KNN (K-Nearest Neighbor) to apply on diabetes patient's database and analyze them by taking various attributes of diabetes for prediction of diabetes disease. Muhammad Azeem Sarwar et al. [10] proposed study on prediction of diabetes using machine learning algorithms in healthcare they applied six different machine learning algorithms Performance and accuracy of the applied algorithms is discussed and compared. Comparison of the different machine learning techniques used in this study reveals which algorithm is best suited for prediction of diabetes. Diabetes Prediction is becoming the area of interest for researchers in order to train the program to identify the patient are diabetic or not by applying proper classifier on the dataset. Based on previous research work, it has been observed that the classification process is not much improved. Hence a system is required as Diabetes Prediction is important area in computers, to handle the issues identified based on previous research.

III. Proposed Methodology :

Goal of the paper is to investigate for model to predict diabetes with better accuracy. We experimented with different classification and ensemble algorithms to predict diabetes. In the following, we briefly discuss the phase.

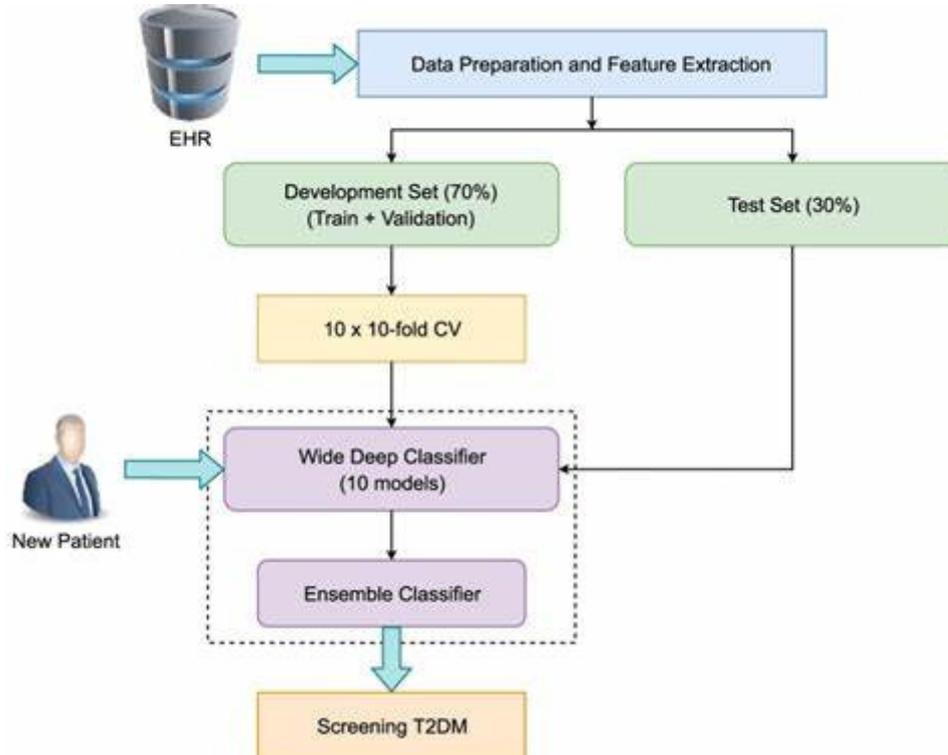
A. Dataset Description- the data is gathered from UCI repository which is named as Pima Indian Diabetes.

The 9th attribute is class variable of each data points. This class variable shows the outcome 0 and 1 for diabetics which indicates positive or negative for diabetics. Distribution of Diabetic patient- We made a model to predict diabetes however the dataset was slightly imbalanced having around 500 classes labeled as 0 means negative means no diabetes and 268 labeled as 1 means positive means diabetic.

B. Data Preprocessing- Data preprocessing is most important process. Mostly healthcare related data contains missing vale and other impurities that can cause effectiveness of data. To improve quality and effectiveness obtained after mining process, Data preprocessing is done. To use Machine Learning Techniques on the dataset effectively this process is essential for accurate

result and successful prediction. For Pima Indian diabetes dataset we need to perform pre processing in two steps.

Fig 1: Machine learning workflow on diabetes



1). Missing Values removal-

Remove all the instances that have zero (0) as worth. Having zero as worth is not possible. Therefore this instance is eliminated. Through eliminating irrelevant features/instances we make feature subset and this process is called features subset selection, which reduces diamentonality of data and help to work faster.

2). Splitting of data-

After cleaning the data, data is normalized in training and testing the model. When data is spitted then we train algorithm on the training data set and keep test data set aside. This training process will produce the training model based on logic and algorithms and values of the feature in training data. Basically aim of normalization is to bring all the attributes under same scale. C. Apply Machine Learning- When data has been ready we apply Machine Learning Technique. We use different classification and ensemble techniques, to predict diabetes. The methods applied on Pima Indians diabetes dataset. Main objective to apply Machine Learning Techniques to analyze the performance of these methods and find accuracy of them, and also been able to figure out the responsible/important feature which play a major role in prediction. The Techniques are follows1) Support Vector Machine- Support Vector Machine also known as svm is a supervised machine learning algorithm. Svm is most popular classification technique. Svm creates a hyperplane that separate two classes. It can create a hyperplane or set of hyperplane in high dimensional space. This hyper plane can be used for classification or regression also. Svm differentiates instances in specific classes and can also classify the entities which are not supported by data. Separation is done by through hyperplane performs the separation to the closest training point of any class.

Algorithm-

- Select the hyper plane which divides the class better.
 - To find the better hyper plane you have to calculate the distance between the planes and the data which is called Margin.
 - If the distance between the classes is low then the chance of miss conception is high and vice versa. So we need to
 - Select the class which has the high margin. Margin = distance to positive point + Distance to negative point.

2) K-Nearest Neighbor

KNN is also a supervised machine learning algorithm. KNN helps to solve both the classification and regression problems. KNN is lazy prediction technique. KNN assumes that similar things are near to each other. Many times data points which are similar are very near to each other. KNN helps to group new work based on similarity measure. KNN algorithm record all the records and classify them according to their similarity measure. For finding the distance between the points uses tree like structure. To make a prediction for a new data point, the algorithm finds the closest data points in the training data set — it's nearest neighbors. Here K= Number of nearby neighbors, it's always a positive integer. Neighbor's value is chosen from set of class. Closeness is mainly defined in terms of Euclidean distance. The Euclidean distance between two points P and Q i.e. P (p1,p2, Pn) and Q (q1, q2,..qn) is defined by the following equation:-

Algorithm-

- Take a sample dataset of columns and rows named as Pima Indian Diabetes data set.
- Take a test dataset of attributes and rows.
- Find the Euclidean distance by the help of formula-
- Then, Decide a random value of K. is the no. of nearest neighbors
- Then with the help of these minimum distance and Euclidean distance find out the nth column of each.
- Find out the same output values. If the values are same, then the patient is diabetic, otherwise not.

3) Decision Tree-

Decision tree is a basic classification method. It is supervised learning method. Decision tree used when response variable is categorical. Decision tree has tree like structure based model which describes classification process based on input feature. Input variables are any types like graph, text, discrete, continuous etc.

Steps for Decision Tree Algorithm-

- Construct tree with nodes as input feature.
 - Select feature to predict the output from input feature whose information gain is highest.
 - The highest information gain is calculated for each attribute in each node of tree.
 - Repeat step 2 to form a subtree using the feature which is not used in above node.
- 4) Logistic Regression- Logistic regression is also a supervised learning classification algorithm. It is used to estimate the probability of a binary response based on one or more predictors. They can be continuous or discrete.

Logistic regression used when we want to classify or distinguish some data items into categories. It classify the data in binary form means only in 0 and 1 which refer case to classify patient that is positive or negative for diabetes. Main aim of logistic regression is to best fit which is responsible for describing the relationship between target and predictor variable. Logistic regression is a based on Linear regression model. Logistic regression model uses sigmoid function to predict probability of positive and negative class. Sigmoid function $P = \frac{1}{1+e^{-(a+bx)}}$ Here P = probability, a and b = parameter of Model.

Ensembling- Ensembling is a machine learning technique Ensemble means using multiple learning algorithms together for some task. It provides better prediction than any other individual model that's why it is used. The main cause of error is noise bias and variance, ensemble methods help to reduce or minimize these errors. There are two popular ensemble methods such as – Bagging, Boosting, ada-boosting, Gradient boosting, voting, averaging etc. Here In these work we have used Bagging (Random forest) and Gradient boosting ensemble methods for predicting diabetes. 5) Random Forest – It is type of ensemble learning method and also used for classification and regression tasks. The accuracy it gives is grater then compared to other models. This method can easily handle large datasets. Random Forest is developed by Leo Breman. It is popular ensemble Learning Method. Random Forest Improve Performance of Decision Tree by reducing variance. It operates by constructing a multitude of decision trees at training time and outputs the class that is the mode of the classes or classification or mean prediction (regression) of the individual trees.

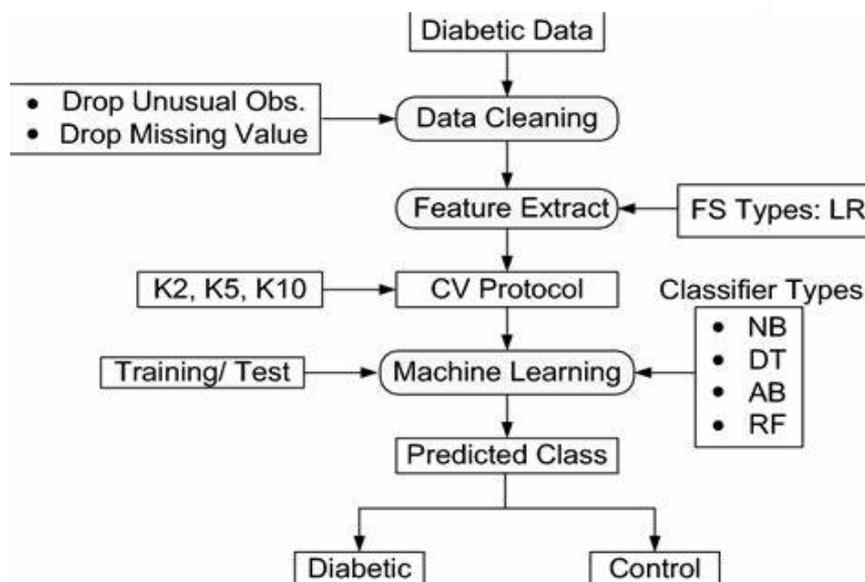


Fig 2: Classification of diabetes using machine learning Algorithm-

- The first step is to select the “R” features from the total features “m” where $R \ll M$ Among the “R” features, the node using the best split point.
- Split the node into sub nodes using the best split.
- Repeat a to c steps until “l” number of nodes has been reached.
- Built forest by repeating steps a to d for “a” number of times to create “n” number of trees.

The first step is to need the take a glance at choices and use the foundations of each indiscriminately created decision tree to predict the result and stores the anticipated outcome at intervals the target place. Secondly, calculate the votes for each predicted target and ultimately, admit the high voted predicted target as a result of the ultimate prediction from the random forest

formula. Some of the options of Random Forest does correct predictions result for a spread of applications are offered. 6) Gradient Boosting - Gradient Boosting is most powerful ensemble technique used for prediction and it is a classification technique. It combine weak learner together to make strong learner models for prediction. It uses Decision Tree model. it classify complex data sets and it is very effective and popular method. In gradient boosting model performance improve over iterations.

Algorithm

- • Consider a sample of target values as P
 - Estimate the error in target values
 - . • Update and adjust the weights to reduce error M.
- $$P[x] = p[x] + \alpha M[x]$$
- Model Learners are analyzed and calculated by loss function F
 - Repeat steps till desired & target result P.

IV. Model Building

This is most important phase which includes model building for prediction of diabetes. In this we have implemented various machine learning algorithms which are discussed above for diabetes prediction.

Procedure of Proposed Methodology

Step1: Import required libraries, Import diabetes dataset.

Step2: Pre-process data to remove missing data.

Step3: Perform percentage split of 80% to divide dataset as Training set and 20% to Test set.

Step4: Select the machine learning algorithm i.e. KNearest Neighbor, Support Vector Machine, Decision Tree, Logistic regression, Random Forest and Gradient boosting algorithm.

Step5: Build the classifier model for the mentioned machine learning algorithm based on training set.

Step6: Test the Classifier model for the mentioned machine learning algorithm based on test set.

Step7: Perform Comparison Evaluation of the experimental performance results obtained for each classifier. Step8: After analyzing based on various measures conclude the best performing algorithm.

VI. Conclusion:

The main aim of this project was to design and implement Diabetes Prediction Using Machine Learning Methods and Performance Analysis of that methods and it has been achieved successfully. The proposed approach uses various classification and ensemble learning method in which SVM, Knn, Random Forest, Decision Tree, Logistic Regression and Gradient Boosting classifiers are used. And 77% classification accuracy has been achieved. The Experimental results can be asst health care to take early prediction and make early decision to cure diabetes and save humans life.

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Aspects of Regional Historiography of Deccan

Dr. Meherjyoti Sangle

Associate Professor,

University Department of History, SNDT Women's University, Mumbai

Regional history is one of the branches of New Social history.¹ In the later half of the twentieth century, all countries of the world started to document regional history. The journey of regional history transforms from macro to micro study. It is interlinked with world history, national history and local history. The word 'region' indicates a small unit from the point of geography. According to the Oxford Learner's Dictionary, the meaning of region as a noun is a geographical specification in terms of the direction, mountains, plateaus, rivers; people living on the specific land, their population, flora, fauna, trade and commerce. This paper examines the regional histories written from the Colonial period to contemporary times in India. It discusses historiography of the Deccan region and the local history of Bombay. It explores the Methodology, Parameters of Regional History and the efforts had taken by institutions and Universities for regional historiography.

The definition of the word indicates that the approach of regional historiography is not limited only to the geographical locations. It examines the historical facts of human civilization and events of a particular region. In the words of the French historian of the Annales School Fernand Braudel, it is a "mosaic of landscapes of a variety encountered nowhere else."² He further clarified, "Every village, every valley, a fortiori every pays, every town, every region, every province has its own distinct character- visible not only in the particular features displayed in the landscape and in many imprints man has left upon it, but also in a lived culture."³ Regional history analyses the depth of study of a particular region with its specification, its history and the events influenced by political powers, role of government bodies and institutions and how it reflects on their public affairs, social and cultural fields.

The regional studies present personal feelings and memories of specific region. It is a difficult challenge to the professional historians. The regional historians should take account of the interpretation of historical facts and events through the knowledge of multiple areas such as topography, environment, economic conditions, social movements, role of philanthropists, public affairs, social movements, personal memories and cultural identities.

Need of rewriting history

History should be rewritten. There are arguments for reconstruction of history with changing attitudes and views in regard to the past.⁴ Considering the English history, G. P. Gooch pointed out the reason behind the rewriting of history in his book, *History and Historian in the nineteenth Century*, "the historical facts applied as a misrepresentation"⁵ whereas Froude analysed "incredible carelessness in detail" and "lack of impartiality"⁶ and re-interpretation of old facts.⁷

Why regional history ?

Writing national history cannot give proper space to identities and differences of the regions. India is a vast country with great diversity of regional identities. It might be possible to over- write and /or miss historical facts and events in the subjective type of history. The word subjective is used here in the context of the choice of the selection of topic by writers and

historians. Such research cannot do justice equally. It may neglect the role and the contribution of the people living in a specific land. The new trend of regional history gives the opportunity to give space to the activities of the human civilization in the region. It can fill the gap of national history and add on to the regional interpretation in the mainstream.

In addition to the above factors, the examination of regional historical facts should be continued from period to period, because the region has changed with geographical formation and boundaries either by natural cause or political reasons. The methodology and approach of regional history is linked with new history,⁸ new social history⁹ and new cultural history.¹⁰

Methodology:

According to Garragham the need of rewriting of history is discovery of new sources.¹¹ While examining the historical facts of one complete region and their relationship to the history of human civilization, new sources should be discovered and used in the methodology.

Regional history has a vast scope and it comes under interdisciplinary studies. While searching facts, the scholar should go through the reports of allied subjects and opinions of other professionals to do an in- depth study from various perceptions of the field. Regional historians use traditional and new sources. Besides traditional sources, archaeological reports, geographical locations, epigraphical sources, ethnography, archival records, reports of meteorology, historical literature, family correspondence, official documents, arts and architectural details and oral history should be used to construct and rewrite regional and local history. Further, religious literature, folk literature, myths, legendary accounts, paintings should be cross checked. While concentrating on regional history, a new branch emerged in European countries as Local History.

Regional history has a complex and interdisciplinary nature. It is connected and inter linked with historians, archivists, sociologist, historical institutions, and societies, cultural and traditional groups, tourists, museums, naturalists, nature lover groups, environmentalists, ecologists and preservation and conservation groups.¹² Regional history emphasizes on macro level study whereas local history examines the events at micro level. Local history can bring about a turning point in the lives of children, to observe the surroundings of their habitation and understand and enhance their knowledge of history.

Regional history in India:

In India, regional history emerged in the Colonial period. The research and writing of history of ancient India started in the eighteenth century. In 1784, Sir William Jones established The Asiatic Society of Bengal and started a journal to get better knowledge of the Indian land and people. Sir William Jones and Wilkins translated many ancient Indian sources from Sanskrit to English. These are the starting efforts to understand Hindu customs and legal system. The British used Indological studies and Orient research to explore India's lack of interest in history. German Intellectuals Max Muller, Greem, Christian Lesson also translated Sanskrit texts into German and studied ancient Indian literature.

The British started to write the History of Ancient India in the eighteenth century for the purpose of their foundation of the rule in India. Ideologist and Orientalist writers and historians drew the outline of Indian history through the colonial perceptions. But these understandings failed and it showed in the result of the revolt of 1857. The British officer purposely used the beliefs of Indian and Muslim customs and religion in 1850s politics.

The first work of the regional history was written by British historian Grand Duff, entitled "History of Marathas" in 3 volumes in 1826. He reviewed the history from the conquest of the Deccan by Muslim rulers from around 1000 A. D. till 1819. He criticised the rise of the Maratha power as a result of the accidental conflagration of the forests of Sahyadri ranges with Mughal factors. His criticism was not accepted by Indian historians.

James Todd was an officer of the British East India Company, and an Oriental scholar. He was also a member of Royal Asiatic Society's Oriental Translation Committee in 1834. He examined the Rajputana State in terms of contemporary geography and political history entitled as "Annals and Antiquities of Rajasthan." It was published in two volumes in 1829 and in 1832.

The brother of the famous archaeologist Sir Alexander Cunningham, Joseph Davy Cunningham was known as the father of the history of Punjab, who was author of "History of Sikhs" (1849). He tried to cover almost two hundred to four hundred years of the history of Punjab in this book. Another British historian, William Wilson Hunter who was a pioneer in economic studies wrote many histories on various subjects. But as a part of regional history, his work on "Annals of Rural Bengal" was published in 1868. These are a few examples. But one thing is common that Grand Duff, James Todd and Joseph Cunningham worked as political agents of the East India Company in the respective regions and it was helpful to them to get all the primary sources.

Indian Scholars:

There are two types of efforts that were taken to 'correct' or re-invent regional history, one by Indian scholars in the colonial period, and another was efforts initiated by Institutions. As Garranham pointed out, history has to be re-written for removing errors and inadequacies of existing history. He emphasized on the significance of re-interpretation of the old material.¹⁴ Indian historians responded to the colonial historians "correcting" of regional history in the nineteenth century. It was the response to the Indology studies, Orientalist histories and Imperialist writings on Indian history written by British historians. Romila Thapar observes that regional history derives from the nationalist historiography.¹³

The first work on the history of Mumbai was titled "Mumbaiche Varnan" written by Govind Narayan Madgaokar in Marathi in 1863. Madgaokar recorded the contemporary information of the industrial Bombay city under the rule of East India Company. This account is authentic as a record of contemporary importance and gives a detailed account of city life, socio-cultural life of people of different castes, classes and languages, costumes, musical instruments, economic conditions, social welfare and history of Bombay. He used various books, documents, bakhars, newspapers, folk songs, etc.

Another work of the Oriental scholar R. G. Bhandarkar, is 'Early history of the Deccan' (1884), and another 'A Peep in to early History of India' (1900). The early history of the Deccan is a great example of the regional history, where he started his dialogue on the etymological terminology of Daksina or Daksinapatha or Dakhan and its geographical location. He gives an account of Western India from earliest times to the Mughal conquest.¹⁵

He examines the geography, and the political, economic, social, cultural and religious condition of the Deccan. His writings are objective and he has used multiple sources such as Sanskrit texts, inscriptions, sculptures, caves, temples, travelogues, art and literature. He followed the Rankean scientific method. Other Indian historians, Krishnaswami Aiyengar and

Nilkantha Shastri wrote on the History of South India. Romesh Chandra Dutt wrote "Literature of Bengal" in 1877.

The nature of regional history then was different from today. The scholars and historians examined how the European historian interpreted the sources of history and gave attention to the nationalist approach to history. In the later half of the nineteenth century, Justice M. G. Ranade, N. J. Kirtne, Vasudev Shastri Khare, G. S. Sardesai, VK Rajwade and Jadunath Sarkar criticised the opinions of Duff. They searched for new sources on Maratha history in multiple languages. G. S. Sardesai was well-known as a Riyasatkar, and he published "Main Currents of Maratha History" in 1923. He wrote "Marathi Riyasat" a series of books on Maratha History, and translated the sources of Maratha history from Modi script to English and Devnagari Script, known as "Peshwa Daftar" in 45 volumes. In Jadunath Sarkar's works on Mughal history he particularly covered the period of Akbar to Aurangzeb. Dr. Balkrishna wrote "Shivaji: The Great." The work done on Marathas, the rulers of the Deccan by G. S. Sardesai was very useful at that time and now also, to historians and scholars. This is an excellent piece of work on regional history.

While writing on the period of history in the early nineteenth and early twentieth century, scholars and historians explored various new subjects. A few are listed here: DE Wacha wrote two books on the Bombay Municipal Government in 1913 and another work on Shells of Bombay in 1920. DV Kale explored "Social Life and Manners in Bombay Maharashtra, (1750-1800)" in 1927. Kale mentioned names of two regions in the title of the book as Bombay Maharashtra. He wrote on fifty years of social history of Bombay. N. G. Chapekar examined social history of a local region of Bombay Suburban Badalapur (Amacha Gao-Our town) in 1933. Setu Madhavrao Pagadi contributed his work on medieval India as well as History of Shivaji and Marathas. Y. M. Kale wrote History of Nagpur Province in 1934. Pestonji wrote history of the Bombay Electric Supply and Transportation, in 1936.

In the twentieth century, writers and historians wrote histories of various regions as local history, city history with multiple aspects of nationalist approach on social history, economic life, cultural diversity in Bombay, Deccan (Choksi), urban history, rural history, Peasant, Military History (J. Sarkar), Naval history (Apte), Judicial system (Gune, VT), cultural history and literary studies in ancient to modern period of Deccan, Poona, Bombay, Ahmedabad, Mysore, Bengal, Nagpur, Delhi, Avadh, Rajputana and so on. Datto Vaman Potdar, R. S. Sharma, Shreevastav, S. R. Sharma, G. H. Khare, Bendre V. S. & Bendre S. V. wrote the history of Marathas in the Deccan in the medieval period. The writings on Maratha History and regional history extended their boundaries till Western India.

Research Institutional's Efforts :

The new learners group of British India realized the necessity and importance of research in regional history. Research institutes and Study Institutes i.e. Abhyas Mandals played a very significant role in the development of the regional and local history from 1880s, called 'responses to colonized history' by carrying out four important functions of history. That is

1. By searching original sources especially from the ancestors of the ruler or dynasties;
2. Making proto copy of it
3. Translating it in to vernacular languages (Ex. In the history of Maraths, mostly sources are in Modi script so they translated it in to Devnagari script or regional scripts as in vernacular scripts and languages as Bengalee, Asamese, Hindi and so on)

4. Publishing original sources in the form of copy or re-writing.

They published it either in the newspapers or in magazines or in the book form also. These institutions came forward and made efforts to encourage writers and historians to do research in regional and local history. They did most substantial work to preserve the sources of regional history, and provided a literary repository of regional historic knowledge in the mother tongue.

In this movement, some regions were active in British India. The object behind these activities are somehow nationalist as well as the curiosity of our ancestral role in the history of the region. The main purpose was to know the real history which was written in those times rather than written by European historians. A few examples are:

The writer Vinayak Laxman Bhave started Marathi Grantha Sangrahalaya at his residence in Thane on 1st June 1883. It was the first Marathi Library in India. Marathi Grantha Sangrahalaya took the initiative with the help of historians and established Marathi Daftar to publish or reprint or make the photocopies of the original writings of the history of Marathas. They published 96 Kalam Bakhar in Aronodaya Newspaper in 1903. They published the first Rumal of Sri Satarkar Maharaj Bhosale's Bhakhar by efforts of Vinayak Laxman Bhave in 1917. 16 Eminent historians V. K. Rajwade and Khanderao Mehendale established Bharat Itihas Sanshodhak Mandal at Pune on July 7, 1910 for the encouragement to write the regional history of Marathas in Deccan and local history of Medieval Poona. Datto Vaman Potdar, G.

H. Khare, V. C. Bendre played an important role in collection of the original sources in Modi, Persian, Portuguese, Marathi and English. The collection includes not only documents but also paintings, coins, sculptures and inscriptions. They gave thrust to the history of Maratha dynasty, Marathi Culture and Marathi Literature. Bharat Itihas Sanshodhak Mandal published journals and sources and records of medieval period of India and especially on Marathas.

Such historic and research oriented institutions were started at regional places for the same object. Assam Research Society was established at Assam in 1912 to research ancient heritage as a part of nationalist history. Itihas Study Institute (Itihas Abhayas Mandal) was started in Kolhapur. Rajwade Sanshodhak Mandir was established at Dhule in 1926. RP Patwardhan and HG Rawlinson edited "Source Book of Maratha History" in 1928. The other institutions in this list are The Marathi Sanshodhan Mandal (Marathi Research Institute) and the Itihas Sanshodhan Mandal (Historical Research Institute) in 1948. These institutions have rich collections of repositories on various fields.

Annals School:

In the 20th Century, the Annals School of Historiography changed the paradigm and the parameters of writing 'new social history' of regional histories in the 20th century. A 'new social history' changes the nature of History and it becomes a social science. In the contemporary period, scholars worked on interdisciplinary studies of regional history. It gives more specific study of social and cultural history. Lucien Febvre and Marc Bloch changed the nature of history to 'fuller and richer history of man's life in society.'¹⁶ It expands the scope of history as a total history and from royal to masses, from agriculture to ecology and environment issues, from palaces to small houses, from high caste to lower caste, economic sectors, workers to migration, from social customs to cultural diversity, from discoveries to superstitious belief and practices, their manners, from malnutrition to healthy life. Braudel discusses " a way of life, a way of

death, a set of rules governing basic human relation between parents and children, men and women, friends and neighbours."17

It included regional study of new social history which included history of class, castes, community, tribes, Women, Gender, Social movements, Birth, Death, History of Science (Deepak Kumar), History of Technology (Jaggi), History of Medicine (Anil Kumar), History of Public Health, (Ramanna), History of Women's Health (Sangle) History was enriched and studied by various approaches of historiography as Cambridge, Nationalist, Marxist, Subaltern, Feminist, Gender, Annals, Structural, Post Modern in India.

Educational and Research Institutions:

After 1960, the regional Universities of Maharashtra provided history education through mother tongue. Government of Maharashtra established Maharashtra Vidyapith Grantha Nirmiti on 19th March, 1969; and took up a large project to write the political history of Marathas, and started to translate and publish sources on Maratha history. Now these institutions have changed their nature in the 21st century and mostly started to digitize the original sources for the scholars. There are many regional History Groups and History Conferences in India who promote the exploration of the hidden sources and interpreted and re-wrote the regional and local histories. Government of Maharashtra also contributed publications of various district gazetteers. Gazetteers gave a complete scenario of regional history in terms of political, social, economic and educational developments, religious conditions.

Conclusion :

Writing of history is a continuous process. Regional history analyses specific historical realities and their impact on the development of the total history of regions at micro level in various historic periods. Regional history has a vast scope and is interdisciplinary in nature. Annals School has expanded it. Historians, scholars, research institutes, Universities contributed to the writing of regional history in India. Nowadays a lot of studies have started to work on the regional and local history in various regional Universities. Indian culture has been kept alive in their respective areas, however their teachings are never confined to any particular land but have influenced all Indian lives.

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Google Classroom : A Tool to Investigate Digital Competence During COVID-19 Pandemic

Sayed Iram Tabish*

Prof. Syed Zahoor Ahamd Geelani

School of Education, Central University of Kashmir, Ganderbal India

Abstract:

Covid-19 has been realized as a global pandemic by WHO. In the March of year 2020, all the educational Institutions in India had to switch to the online academic platforms. Educators, learners with all the digital technological expertise including those who abhor technology, digital skills, beginners to masters were forced to teach and communicate through the technological platform because of COVID-19 pandemic. This mode of teaching is known as online or virtual learning. One of the platform implemented by the schools is Google Classroom. We aim to review the use of Google Classroom in COVID-19 pandemic. The probe which we employed is the library research. The research findings support the idea that it is an effective and easy platform and should be considered in future as well.

Introduction:

The world currently is grappling through a tough time in the face of coronavirus. In Dec. 2019, a case of pneumonia was detected in a city called Wuhan in China which was later identified as “2019-nCoV”. According to WHO, coronavirus includes a group of virus which causes illness such as common cold, respiratory infections to severe diseases. Subsequently, the name of the virus was changed to “COVID-19 virus”.

With the tremendous increase in the number of cases reported all around the world and the colossal loss of lives, World Health Organization Director General Tedros declared COVID-19 as an utter global medical emergency ----pandemic. It was because of the fact that large number of people got affected and it spread worldwide, and was of high prevalence, crossing international borders. It was confirmed to have spread to India on January 27, 2020 when an Indian student, who was studying in the Wuhan University was traveling to Kerala. Following the first case, India had screened hundreds of flights, and passengers and put a cap on the travel. By July 2020, India had reported around 1.1 million COVID cases. Out of this, around 7 lakh people had recovered and the death toll rose up to around 27500. India stood at the third position followed by U.S and Brazil. Initially, large scale restrictions were placed, and when the situation worsened, the Govt. implemented the nationwide lockdown with the due consent/approval from the Ministry of Health.

As per the UNICEF report, around 1.6 billion students were hit by the COVID-19 pandemic. All the educational Institutes including lower education, as well as universities and Colleges were closed down as a preventive measure against this dreadful virus. As per reports, schools were closed down in around 180 countries. With this world wide closure, everything came to standstill affecting primarily the educational Institutions. It was an unprecedented halt on the educational activities. There is no exact data which can factually describe the damage it did to the educational sector.

To stop the uncontrollable damage, the teaching learning switched to the online process. The online mode of teaching was the only recourse and resort that could rescue the students from going astray, but this kind of shift was not easy. It was topsy turvy kind of thing for all

stakeholders including the students, learners and the parents. As, there was a blanket ban on the outdoor activities, the sudden introduction of the digital learning system transformed the way of learning. It put a cap on the extra-curricular activities which impacted the performance of the teachers and learners and therefore created a herculean challenge for the teachers. A study reveals that the retention, and the imprints of a classroom lecture is better than the online learning. The tangible classroom environment creates a huge impact on student's learning and in shaping his personality.

After the outbreak of COVID-19 pandemic, the schooling went into the online mode. It ran out for several months and covered all the levels of education including informal education as well. Although schools reopened after a long break, there is a strong possibility that there may be a surge in cases in future as well. In case, the situation worsens, the schools may get closed down again. Therefore, it must be ensured that the educational process, learning-teaching mechanism is made more effective so that students don't suffer anymore.

As per reports:

1. 90 % of countries adopted digital learning but only 60% did that for the primary education.
2. Only 69% school going children had access to the online education through digital media that means 31% school going children were kind of left out.
3. Only 62% students world wide were reached out by TV.
4. 16% were reached out by radio based learning world wide.

Google classroom:

There are many platforms in which teacher can reach out to the students and take classes and interact. These include Whatsapp, Zoom, GroupMe, Facetime and a plethora of online platforms. One of the most widely used and a popular online platform is Google classroom. Google classroom is an application developed by google. It provides a platform where the different stakeholders can meet. Google classroom is a blended learning platform where people can share material, collaborate and communicate with each other. It is a digital tool both in the hands of the teacher and the student. It is cost free, easy to use application and can be used by anyone who has a google account. Google classroom is basically a paperless classroom. A teacher can teach, share material, take tests, organize quizzes, evaluate the students but all this in a paper free mode and that too from a distance. Different teachers can collaborate together using google classrooms, thus leads to an improvement in teaching as well. Google classroom is very easy to use. To start or begin, we need to register as a teacher or student. The google classroom has three windows, the first one is called stream – it is kind of notification area. Using this feature, the teacher can make announcements for the students. The teacher can even chat with the students using the chat box. This chatting can be open type and closed type. The second window is the classwork is the one where teacher can upload the content. The students can also upload their assignments in this section. The third and the last window is the people – it shows that the people who have joined the Google Classroom means are connected with each other. With the help of this feature, the teacher can keep an eye at the attendance of the students.

Google classroom is very useful for teachers as well as students. With Google Classroom, we can create and distribute the assignments, work sheets very easily.. The teachers can keep track of the assignments, and student's performance. It enables the teachers to provide a nuanced

feedback to the students. Therefore, it is a robust platform that facilitates the interaction between students and teachers.

This platform can serve as a best alternative for the classroom teaching in the time when schools can't be opened. It provides a close to the physical classroom like connectivity and engagement. Also, it is a vital tool for teachers because modern teaching can't be thought as complete if the teacher is not well trained and versed with the digital skills.

Research Method:

Primarily, we have investigated the research problem using Library research. Given the nature of our research problem, we have collected the data from records, facts and reports through research articles, magazines, scientific essays, Interviews, and credible digital sources.

Results and Discussions:

The research problem was intended to investigate the impact of Google classroom on the teaching learning mechanism. Broadly speaking, the findings have revealed that the Google Classroom has provided a novel mechanism for the digital learning and has served an effective tool in bridging the gap between learners and teachers that the COVID-19 created. Whenever the teacher wished to share any content on such a platform, he/she posted it on their accounts so that they could immediately respond to it. Secondly, the content shared with the students shouldn't be muddled or confused, because it can create the doubts and hence not serve the purpose of collaborative learning. The third important factor is the availability of internet services to both the stakeholders, teachers as well as students. If there is no internet facility available to any of them, or the internet is not working properly, then the concept of Google Classroom is a failure. The message the teacher delivers to students should be simple and easy to comprehend. If the standards of teaching are kept messy, incomprehensible and sophisticated, then the students won't be able to understand the lecture which will affect the student's performance. One of the vital effective indicators of an effective communication is punctuality. If the student doesn't submit the work assignments on time, the teacher should provide poor grades to the students. The study reveals that the use of such skills is easy. In a pandemic situation, the use of Google Classroom is very effective and substantially improves the digital skills, discipline.

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Promoting Reading Habit and the Role of Library Using Social Networking Sites

Shweta Pathak

Librarian

KES' Shri. Jayantilal H. Patel Law College Kandivli Mumbai

Abstract: -

Encouraging reading habit aims to make known the users about the library. It is the main activity in the library to teach popularized reading hobby. The main motive for promoting a reading culture is to make reading a habit that user's value and appreciate. Generating attentiveness on the importance of reading to build up reading as a habit is imperative. This paper defines the concept of reading ethnicity and the role of libraries in analyzing the efforts of librarians that are being undertaken to encourage users and the need to develop the reading habit. The study investigates various factors of reduced reading culture and the critical roles of libraries in improving and promoting reading culture among users. This study will assist in considering different vital elements needed for improving and promoting functional reading culture in the present and future using social networking sites.

Keywords: - Reading culture, Reading habits, Library, Library users, social networking sites, Reading promotion

Introduction:

Social media is significant to talk with people, share the information, and follow/evaluate/interpret the events, etc. in the present scenario. Social networking sites have become most liked with the help of digital technologies like tablet, smartphone, notebook, and internet recently (Boyd & Ellison, 2007). Social media platform helps people to make connections and improve friendly relations with others and to exchange information with others. In current scenario Social Networking Sites such as Blogs, Facebook, Instagram, LinkedIn, Twitter, YouTube, etc. are used to develop reading habit. Right to use knowledge is essential to human and reading is one of the major ways of acquiring information. Reading is a foundation upon which educational and logical skills are built and also it is a way of improving their own productivity, expressions, vocabulary and language skills. Tella and Akande (2007) said that reading is the talent to self-educate, learn and be glad about one's own experience and discover their own thoughts.

The library professionals are trained in variety of collection and purchase of reputed information sources, developing their reading habit, and circulation of information to serve the users. In the recent digital environment, libraries are witnessing reduction in physical visit to college premises. Adding up, digital devices or new technologies are putting an end to reading habit in addition to decreased retention capacity of the brain. This thing is a challenge for the libraries to provide remote access to its resources. Libraries should serve their users with a mixture of physical library environment and online services to increase the footfall and promote the habit of reading in its users. Reading includes books like text books, newspapers, journal and magazines, reports (in any format: print or online) and online research articles. Promotion of reading habit or culture has also been recognized as a center function of National Libraries. India

has one National Library, located at Kolkata and is functional under Delivery of Books and Newspapers Act (1956).

Library and Reading Habit

Library is an institution established to create learning support for the teachers and students. The significance of libraries cannot be over emphasized as it serves as a back bone in any institution. Normally, libraries are referred to as a reading hall where users collect and discuss reading materials like Fiction books, non-fiction books and text books. Library should catch the attention of their users for developing the library collection. For reading purpose Current Awareness Services encourages students to develop their own knowledge. In other ways libraries can make users discover pleasure in reading and should introduce Book Exhibition, Book Review Competition, Reading Club, and Essay writing on latest issues. Library can provide effective library services to users physically and through social networking sites.

Role of the library in promoting reading habits

The main objective of promoting a reading habit in our traditions is to make reading the most important part our daily lives and to set up reading as a habit to our culture. The vital role played by the UNESCO public library in encouraging the users to develop their reading habits is highlighted in UNESCO's public library manifesto 1994. UNESCO has followed the reading habits for creating and intensifying reading habits in users from an early age.

Objectives of the study

1. To study the reading habits of the users and the role played by the library in creating, developing, and using social networking sites for increasing their reading habits.
2. To study the reading habit of the users in daily activities.
3. To study which type of reading material is preferred to the users to increase their reading habit
4. To analyze the role played by the library in inculcating reading habits among its users.

Literature Review :

The perception of social media:

Social media is the best group that supports teamwork, society, participation, and sharing information with others. (Junco et al. 2010). Bryer and Zavatarro (2001) describe social media as 'that make easy with social interaction, make the possible relationship, and enable reflection across stakeholders.' Social media technology includes blogs, wikis, media (audio, photo, video, text) sharing different tools, social networking platforms, and virtual things. (Bryer and Zavatarro, 2001). The adoption of social media has developed broadly in recent years. The recent counting of Facebook passed 750 million users, YouTube received 3 billion views per day, Twitter apprehended over 177 million tweets messages per day, and LinkedIn had over 100 million members. According to Mozee (2012) he explains different types of communication sources and electronic ways of interacting with others on social media. He also described it as a set of Internet-based applications that construct the ideological and technical set of ideas of Web 2.0 and which is more user-generated content and depends mostly on technology and web technologies to build highly reciprocal platforms for the users through which people can share create, discuss new information and modify user-generated content through Web 2.0(Kaplan and Haenlein 2010).

Negative special effects of social media on reading habits of students in institutions

Many users are likely to read and keep themselves updated on the current situation. Many users spend quality time surfing the internet in the library to collect information and other irrelevant issues about the world. Also, many users have not passed from institutions with good reading habits and abilities. In most institutions, learners do not read, and even the few who read only do so to pass their examinations (Paul et al., 2012). The libraries already provide reading areas and are now being turned into browsing centers in the internet hub area for reference collection and copying of lecture notes. Only a few students are seen reading in the libraries most of the time.

As Shabo and Usofia (2009) said, many learners' reading habit has been affected due to the evolution of skills and the advent of social media. It improves and develops an individual and is also necessary while writing an examination.

Kirschner and Karpinski (2010) Found that users of social networking sites dedicate less time to their studies than other users that cannot operate social networking sites and subsequently have lower grades in their educational courses. In addition, they found that social networking sites have been a significant distraction among various distractions among the generation in the current scenario.

Statement of the Problem:

The growth of social networking sites has severely changed users' reading habits. Few scholars argued that users' reading habits are unfocused with the unrelenting use of social networking sites, and their desire to read novels, books, or fiction comprehensively has decreased. Parents and teachers are more and more criticized social networking sites for disturbing students from reading and studying, making student's to inactive readers. Parents are also find fault that this all sites consume students' considerable their attention from reading books. As a result, students show low academic presentation because the more time students are online on social networking sites, the reduced amount of time they spend reading their books. If users have good reading habits, they can develop their significant logic & reasoning skills and improve academic record outcomes. The weak users read habits negatively affect users' comprehension, thus affecting their performance and improvement. (Simon and Balan, Katenga 2019).

Conclusion :

The study concluded that the majority of the users across the India make positive use of social networking sites to enhance their reading habits. However, some users are found that social networking sites haven't played an enormous role in rising reading habits. The users must use social networking sites for productive purposes, not as worrying or distracting habits. The elegant and customized use of social networking sites can play an optimistic role in developing the reading habits of the users and, as a result, they serve as a useful instrument like (social media) in improving the academic performance of the users. Schill (2011) said that the more and more time users spend on social media and the less time they spend reading books or articles. It is also recognized that may be social media may encourage negative behavior, among other obscenities, which distract users' behavior reading habits (Kur & Olisah 2007). These users also use social media to share and exchange information. Although they take pleasure in these benefits from social media, some of them acknowledged that they spend more & more hours of

their day on the internet accessing social media platforms. Hence, it has resulted in distraction in the home, classroom, and even when reading in the library. This has affected their reading habit because of the decrease in time spent on reading. Since social media has become a vital component of the daily life of tertiary users, the study, accordingly, concludes that social media should be used prudently, not only to stay in touch with family and friends but must be used reasonably as a vital information source and conducting academic activities. Time spent on social media must also be reduced to enable students to improve their reading culture since it will consequently enhance their general academic performance. The study consequently recommends relative orientation on when and how to manage social media by students in tertiary institutions in Ghana. Also, most users' access social media with a wireless network and users can use social networking sites during lectures and library sessions. Again, students must endeavor to use more of their time in reading their books than on social media surfing. They can use wikis like Wikipedia that promote learning and academic research. Finally, the campaign on the adverse effects of social media must be intensified to inform users about other issues, such as the health threat of using social media.

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Special Libraries and their Parent Bodies : A Case Study of National Power Training Institute Library

Suvarna Inamdar
Librarian,
Kamla Nehru Mahavidyalaya
Sakkardara, Nagpur

Dr. Manju Dube
Librarian
R.S. Mundle Dharampeth
Arts & Commerce College Nagpur

Abstract:

This study examined the roles of special libraries in the growth and development of their parent bodies. National Power Training Institute caters to a special group of users. These are the premium institutions so the study of these departments and their libraries will help to explore the nature of services and facilities. The Library of National Power Training Institute (NPTI) is one of the departments of the institute. It supports training through its customized services as per the requirement of the training. National Power Training Institute (NPTI) created its own publications, e-learning packages and computer-based training resources. While working together, they collaborate to produce bibliographical tools, and software; acquire materials; organize conferences and workshops for research and training. The study is the descriptive method which further consists of survey methods also.

Keywords: Institute, Departmental Libraries Status, Services, Budget, Information Technologies

Introduction: According to the mode of services rendered to the users the concept library is further bifurcated into four types, such as:

1. National Library
2. Public Library
3. Academic Library and
4. Special Library

Special Library:

This paper studied a special library which serves a particular group of people, such as the employees of a firm or a government department, or the staff and members of a professional or research organization. The mission of the special Library is to serve the specialist clientele located within a single establishment group and all are engaged in working towards one common purpose.

'National Power Training Institute (NPTI) and its Libraries:

Libraries of 'The National Power Training Institute (NPTI) are not separate from the institute but a department of the institute. National Power Training Institute (NPTI) is a government training institution under the Ministry of Power, Government of India with its Corporate Office at Faridabad. NPTI has been providing its dedicated service for more than five decades. The Central Water and Power Commission (Power Wing) established Thermal Power Station Personnel Training Institutes in 1965–1975 at Naveli (1965), Durgapur (1968), Badarpur, Delhi (1974) and Nagpur (1975) for training the engineers of thermal power stations which were being established in the country during that time. It also established the Power Systems Training Institute (PSTI) in 1972 and Hot Line Training Centre (HLTC) in 1974 in Bangalore. With the bifurcation of the Central Water and Power Commission into the Central Electricity Authority

(CEA) and Central Water Commission (CWC) in the 1970s, the Institute came under the Central Electricity Authority (CEA). In the late 1970s, the 'Raj Dekshya Committee' set up by the Government of India to improve the power sector of the country recommended among many things formal training for the personnel employed in the power industry. Accordingly, the Indian Electricity Rule was amended to make training mandatory for the personnel employed in the generating stations and associated substations. With this, the Thermal Power Station Personnel Training Institutes under the Central Electricity Authority were carved out and formed into a separate autonomous body under the Ministry of Power as the Power Engineers Training Society (PETS) in 1980 to give more importance to Power Training and to have an accelerated growth of the Institutes. Later, in 1993 Power Engineers Training Society (PETS) was renamed as National Power Training Institute (NPTI). Power Systems Training Institute (PSTI) and Hot Line Training Centre (HLTC) were merged with NPTI in 2002. The National Power Training Institute (NPTI) grew continuously through the tenure of the Indian government. The Institute, which previously conducted training only in thermal power generation has now equipped itself to conduct training in all segments of the power sector i.e. generation, transmission and distribution. In the last four decades of its existence, NPTI has trained thousands of engineers, supervisors and technicians from most of the Electricity Boards, public and private sector utilities and personnel from developing nations.

Concept of Libraries of 'National Power Training Institute (NPTI):

The Library of National Power Training Institute (NPTI) is one of the departments of the institute. It supports training through its customized services as per the requirement of the training. 'National Power Training Institute (NPTI) created its own publications, e-learning packages and computer-based training resources. These resources are available for the trainees, students and the faculties from computer laboratories. The concept of one collection serving multiple users is not new. While working together, they collaborate to produce bibliographical tools, and software; acquire materials; organize conferences and workshops for research and training.

Statement of the Problem:

“National Power Training Institute as an individual Library cannot cater for the needs of all the users of every branch “Total information needs cannot be fulfilled by the National Power Training Institute individual Library. For providing information at a reasonable cost to a variety of library users of the National Power Training Institute intra library collaboration is essential. Old drawings, and images of power plants are available in these conventional libraries. Studying these libraries will be beneficial to explore the possibilities and ways in which a premier institute of repute like the National Power Training Institute can mobilize its resources amongst its varied users in an economic way.

Review of literature:

Literature available relevant to the topic will be explored and studied in detail. In short, it will be a retrospection regarding the research done previously as well as the research to be performed. Further, it will lead to the analysis of available data. A literature review will involve a study of research done about various libraries concerning growth, development, resources, services and facilities, infrastructure, user satisfaction and all the aspects required to do an evaluative study of any library. A review will include such studies of various libraries like

academic libraries, special libraries, libraries of national repute etc. Various aspects like a step-by-step study of Automation in Libraries, ICT skills, gadgets, services, and resource sharing study in various disciplines will be part of the review. This chapter will explore the areas of the study done on the topic of Resource Sharing and networking and related things. This chapter will give an idea about the explored and unexplored areas of research on this topic. In this way, this chapter will include all the research about evaluative as well as a detailed study of different libraries.

Types of Information Resources that are Stock by Special Libraries: A Multimedia

Computer Based Training (CBT) Center has been established at NPTI's Corporate Office and its Regional Institutes for developing Multimedia CBTs in various Technical areas concerning Power Generation like : Thermal, CCGT/Gas, Thermal, Hydro, Renewable Transmission & Distribution and Management Areas.

Publications: 99 Training manuals are published and available for the trainees.

Reports: 73 numbers of Reports in downloadable are of various governments agencies are available

Policies: 21 numbers of Government Policies in the power sector are available on the website.

Presentations: 227 presentations of the latest trends in the power sector are provided as open source resources.

Download: Under this head 54 pdf files are available in downloadable form.

Space: The respondents were asked the present space about the libraries recommended that the present space should be increased to d present space

Conclusion:

This study is conducted for the first time in the history of librarianship, to examine the current status, collection, services and issues, staff being faced by the departmental libraries of NPTI. The study found a big gap between departmental libraries and the latest trends in the field of library and information services. Library and information scientists should conduct further studies by evaluating and analyzing the departmental library system; status, services and learning facilities.

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Gas Chromatographic Analysis of *Pelargonium Graveolens*

Dr. D. G. Karpe*

Post Graduate Department of Chemistry,
Shri Chhatrapati Shivaji College, Shrigonda, Dist-Ahmednagar (MS)
Email: dgkshrigonda@gmail.com

Abstract:

Pelargonium graveolens is a small plant having large quantity of essential oil. In present study essential oil from the plant is extracted by hydro distillation method and GC MS analysis of fresh plant was carried out. There is variation in the concentration of chemical constituents from place to place. In present investigation *Pelargonium graveolens* showed presence of 150 different chemical constituents. Citronellol and geraniol concentration is higher but as compared with other reports it is slightly less. It may happen because of environmental parameters, method of harvesting and many other factors.

Keywords: *Pelargonium graveolens*, essential oil, GC MS analysis, hydro distillation

Introduction:

Pelargonium graveolens is a *Pelargonium* species native to the Cape Provinces and the Northern Provinces of South Africa, Zimbabwe and Mozambique. *Pelargonium graveolens* is an erect, multi-branched shrub that grows up to 1.5 m and has a spread of 1 m. The leaves are deeply incised, velvety and soft to the touch (due to glandular hairs). The flowers vary from pale pink to almost white and the plant flowers from August to January. The leaves may be strongly rose-scented, although the leaf shape and scent vary. Some plants are very strongly scented and others have little or no scent. Some leaves are deeply incised and others less so, being slightly lobed like *P. capitatum*. Common names include rose geranium, sweet scented geranium, old fashion rose geranium and rose-scent geranium. *Pelargonium graveolens* is also known by taxonomic synonyms *Geranium terebinthinaceum* Cav. and *Pelargonium terebinthinaceum* (Cav.) Desf. "Rose geranium" is sometimes used to refer to *Pelargonium incrasatum* (Andrews) Sims or its synonym *Pelargonium roseum* (Andrews) DC. – the herbal name. Commercial vendors often list the source of geranium or rose geranium essential oil as *Pelargonium graveolens*, regardless of its botanical name. The essential oil of *Pelargonium graveolens* from the aerial parts growing in Tajikistan was consists of seventy nine components. The main constituents of the essential oil were reported Citronellal (37.5%), Geraniol (6.0%), Caryophyllene oxide (3.7%), Menthene (3.1%), Linalool (3.0%), isomenthene (7.1%) and geraniol formate (2.0%)¹. Major constituents in essential oil are Citronellal (24.54%), Geraniol (15.33%), Citronellyl formate (10.66%). The concentration of 0.25-2.5 mg/ml showed fungicidal activity². The results suggests that geranium and lemon essential oils and their derivative compounds are valuable natural anti-viral agents that may contribute to the prevention of the invasion of SARS-CoV-2/COVID-19 into the human body³. Thirty seven compounds were determined by GC MS. The most abundant compounds were determined as Citronellal, geraniol and Citronellyl acetate⁴. *Pelargonium graveolens* has shown multiple positive benefits, Its antibacterial and antifungal abilities shows strong potential to replace current therapeutic drug, it shows great potential for a traditional solution in today's world as preservative and more eminently a therapeutic agent⁵.

Materials & Methods:

Pelargonium graveolens plant material collected from Shrigonda, Ahmednagar. Fresh plant material was cleaned and hydrodistilled in 1 lit round bottom flask by using Clevenger apparatus. Fresh oil was distilled out. GC MS analysis of hydrodistilled oil was carried out at CIF, Savitribai Phule Pune University, Pune.

Result & Discussion:

The gas chromatogram obtained by GC MS analysis detected 150 compounds. The concentration of Citronellol and Geraniol was more in extracted essential oil. The major constituents found in the essential oil are (2S, 4R)-4-methyl-2-(2-methylprop-1-en-1-yl) (4.30%), Cyclohexanol derivative (6.55%), Citronellol (7.09%), Geraniol (3.18%), 2,6-Octadiene-1-ol (1.72%), Citronellyl tiglate (1.46%).

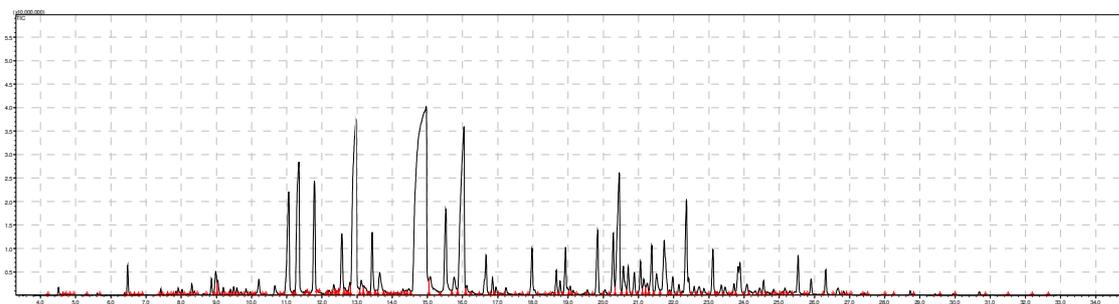


Fig.: Gas Chromatogram of essential oil of *Pelargonium graveolens*

Conclusion:

Essential oil of *Pelargonium graveolens* showed significant fragrance, it has wide variety of volatile chemicals. 150 chemical constituents were identified by GC MS analysis. Citronellol and Geraniol are major constituents in the essential oil. All essential oils have medicinal importance. Essential oil having good and strong aroma so they are largely used in preparation of soaps, detergents and surfactants.

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The Need for Social Research and its Methodology - A Sociological Vision

Dr. Chandrashekhar N. Mohod

Matoshri Anjanabai Mundafale Social work College,
Narkhed, Dist-Nagpur
E-Mail : mohod.cn@gmail.com

Abstract:

Be it social research, scientific research is social and scientific research, both in the field of social and natural problem solving and the creation of new knowledge. However, there is a difference between social research and scientific research in many respects. The purpose of research is to create new knowledge. While scientists have researched the physical aspects of the world, sociologists have explored to analyze the social behavior of humans. In both cases, scientists use different methods to accomplish their task, and these methods may vary according to research. Social scientists use social research and it can be qualitative or quantitative or both. Scientific research is used in the natural sciences and the methods are mostly quantitative. However, both research areas are important for understanding natural and social phenomena. Present research paper reflects the need for social research and its methodology.

Keywords: social research, methodology, social phenomena, social behavior

Objectives:

- To study concept of Research methodology
- To study social research methodology
- To study the importance of social research
- To study the Features of Social Research

Preface:

Social research is used to investigate human behavior in social life. Recently, methods of social science research have been developed. As mentioned above, social research is either qualitative or quantitative or both. Qualitative approach can be seen in participatory approach, research participation, etc. This method is related to quality. The quantitative approach relies on statistical information and analyzes social context through computational evidence. It has to do with proportions. Currently, most social researchers use this method in their findings and the research field is moving towards inactivity. The most difficult thing about social research is that sometimes the researcher's personal feelings can be involved in the findings, and the research can be subjective and biased. Even so, owning one is still beyond the reach of the average person. Many social research findings are more or less objective. Scientific research in physics, chemistry, etc Connected with the natural sciences like. According to scientific research, scientists try to create new knowledge. Here, researchers investigate cases using experimental and measurable techniques. Most of the scientific studies are accurate and they are objective. Scientific discoveries use measurable analytical methods and the special thing is that anyone can do such research at the same time. Also, if there is some research, the scientist can change one or two variables and get the preferred result. Scientific research usually begins with assumptions and is then examined to examine the variables to see if the assumptions are true or false. If this is true then the hypothesis can be a theory and if it is false then it can be abandoned. When it comes to the natural sciences, the opposite is true in the social sciences. The maximum time is less

likely to change and theories last longer. When we take both social and scientific research we can see that there is an attempt to be more objective in order to get more accurate results in the field of both subjects. Also, when conducting research, the researcher should be impartial and follow a systematic and transparent way to achieve the desired results. If we look at the differences, we see that social research is difficult again and again because changes can change over time, while scientific research can be repeated many times if necessary. While the results of social research may change at any time, the results of scientific research last longer.

What is social research?

Social research refers to that research, in which new knowledge related to social phenomena is obtained by using logical and systematic methods. There are two words in social research- 'social' and 'research'. Social means- belonging to the society, that is, that which is not related to any one person, non-living things and any other animal other than man. Meaning of the word research - The word research is the Hindi version of the English word 'Research'. It can be separated into two parts 'Re' and 'Search'. The word 'Re' means again. The word 'Search' means to search. So research literally means to rediscover it means to search again and again. Social research looks deep into human nature and analyzes social contexts. However, any social scientist can look at the population of the whole world to reach a certain conclusion. As a result, it will take a population sample and examine the data and then formulate a general theory based on that data. On the other hand, some social scientists use participant observers as a research method, where the researcher goes to a specific community and becomes a member of that member and participates in the community program while observing the residents. People in the community do not understand that they are watching because then the pattern of their spontaneous behavior may change. The researcher can spend a long time and collect the findings and then he analyzes them and formulates a theory. Social research is a difficult subject because no one can predict human behavior. However, social research is a well-developed field and we have come to understand many things in the context of human behavior and society in which we have lived through social research.

Social research has the following functions:

- Diagnosis - The purpose of understanding the object state at the time of that study is social studies.
- Accuracy of information- Research process all the information collected must be accurate. Predictions- Create research results possible short and long term predictions and delineating possible prospects.
- Possible changes in the study area selected according to the design-research findings can lead to various recommendations.
- Information- Social research results should be made public. They also need to provide some information to the people, to clarify certain qualities.
- Restoration- Due to the results of social research activating or solving various problems of research object various social services more efficient work, and public institutions can be closed.

Features of Social Research:

- Social research is concerned with the detailed study of social phenomena using scientific methods.

- Social research does not confine itself to the application of methods and methods on various scientific instruments but also lays emphasis on the development of innovative methods.
- In social research, not only scientific study of various social phenomena and problems is done, but new knowledge is also created.
- Social research explores the causal relationships between various social facts and events. This is because social phenomena are not independent of each other but are related to each other.
- In social research, where new facts are discovered, the work of re-examination and verification of old facts and previous situation theories is also done.
- Social research is a method in which the suitability of a hypothesis is investigated or tested.
- There is a scientific way of using the findings from the study of social research in the form of theories, that is, new theories are created under it.
- Where social research emphasizes the search for pure knowledge, it is also used to solve practical problems.

Problems in Social research:

Each social science has its own specific research problems, and this is also true for sociological research.

- ❖ Lack of clarity in concepts- Every science has its own specific concepts which all the scholars of that subject use in the same sense. These concepts contribute to advance social research. There is a lack of consensus among scholars regarding the meaning of the concepts used in sociology, when to go to the hymns.
- ❖ Complex Nature of Social Events – Due to the complex nature of social phenomena, social phenomena cannot be studied easily and on the other hand the conclusions obtained from such studies cannot be substantiated. The reason for this is that for a single social event many factors are responsible for many social events. In such a situation a great obstacle comes in the way of social research.
- ❖ Difficulty in achieving objectivity- Objectivity is of special importance in social research. In the absence of this, any conclusion obtained on the basis of social research cannot be called scientific conclusion. Here the researcher is concerned with that society, social life or social phenomenon.
- ❖ Problem of sure forgiveness- In social research, social relations, behaviors and honorable natural are studied prominently. It is not possible to measure all these as they are qualitative and not quantitative. It is not possible to weigh research or measure human nature behavior. This is because no scale has been developed to measure social events.
- ❖ Lack of experimental research- At present the use of experimental methods in social sciences is found to be negligible. The reason for this is that for the use of these methods, proper conditions are still found in the social sciences. This makes it difficult to find causal relationships.
- ❖ Problem of Authentication- It is very important from the scientific point of view to ascertain the credibility of the conclusions obtained on the basis of social research, but this task is very difficult in social science because the social phenomena that are studied here are to be repeated.

- ❖ Impossible- Testing the reliability of findings is one of the major problems of social research.

Importance of social research:

Social research has become a part of daily life in the present age. Its requirements can be explained as follows-

- ❖ Helpful in the development of knowledge - Social research helps in continuous increase in human knowledge. This also develops intelligence. To understand the present complex society, continuous increase in knowledge is essential.
- ❖ Helpful in the removal of knowledge and superstition- Social research helps in eradicating ignorance and superstition through new knowledge. The enlightened person emphasizes on giving up these superstitions.
- ❖ Helps in social control- Knowledge gained through social research also helps in social control. In this way it is known that which event or trend poses a threat to the social system.
- ❖ Helpful in social problems- Present human life is full of problems. Social research can provide help in solving social problems.
- ❖ Helpful in Social Welfare - Social research gives scientific basis to social reform efforts. Social research can understand various social evils and remove them.
- ❖ Helpful in the scientific study of society- Social research helps in understanding social differences by providing scientific knowledge of the various aspects of society and its complexities.
- ❖ Helpful in forecasting- Social research helps in understanding social reality and making rules and theories regarding it. This helps in making scientific analysis of the present conditions and predicting the future.

Conclusion:

Setting research objectives is an important step in the entire research process. We need to be clear about what we are going to do. This gives direction to research. Objectives should be in clear words and without making a long list of objectives, there should be few objectives. When setting goals, you need to consider whether you can achieve them. At the end of the research, the relationship between the objectives and the findings should be clarified. This is why setting goals is so important. Many research projects set assumptions based on objectives. The main purpose of this is to provide guidance on how to initiate research. At the beginning of the research some things are taken into consideration and accordingly a statement of hypothesis is made. Social research helps in continuous enhancement of human knowledge. This also develops intelligence. To understand the present complex society, continuous increase in knowledge is essential.

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Disaster Management in University Library of DR B. R. A University Agra : An Important Aspect

Ranjana Yadav*

Dr. Deepmala**

* Research Scholar, DLIS, Mangalayatan University (MU), Aligarh, Uttar Pradesh, India, PIN-202146

E-mail: ranjana718@gmail.com

** Assistant Professor, DLIS, Mangalayatan University, Aligarh Uttar Pradesh, India, PIN-202146

E-mail: deepmala.mlis@gmail.com

Abstract:

Services of a library can be impacted by a disaster in several ways depending on the type of disaster. It is important for libraries to always be prepared for different type of disasters, which may include disaster caused by natural/accidental reasons, criminal damages, etc. Objective of this study is to investigate the disaster preparedness of university libraries. The study is done through a survey on the basis of a questionnaire designed with the purpose of capturing various facets of data. Interactions with librarians via telephonic conversation and personal observations were used for collection of primary and secondary data. The study revealed that the libraries are equipped to handle disaster through disaster plans including several measures like fire alarms, emergency exits and power supply, scheduled data backup, prohibition of smoking, earthquake proofing of building etc. With the help of this study, Library and Information Science (LIS) professionals shall know about disaster preparedness of Dr. B.R. Ambedkar University in case of distinct disasters.

Keywords: Disaster Management, Disaster Preparedness, Disaster Plan, Natural Disaster, Libraries, University.

1. Introduction:

A library is an ocean of knowledge. Library plays a vital role in proliferation of knowledge to students and educators akin. A disaster has been defined as a serious problem occurring over a short or long period of time that causes widespread loss to human, material, economy or environment which exceeds the ability of the affected community or society to cope using its own resources. A disaster in a library can bring upon risk to the information repository, building, employees of the library and hamper the normal services. Disaster proofing the library building and its components to provide a safe environment to the staff and visitors is of utmost importance to the management of the library. Disaster planning is important to minimize the impact to infrastructure, information archives and human resource deployed in the library in case of a disaster. The disaster may be due to several reasons including natural causes, technical failures, criminal activities, etc. This emphasises on need of a well laid out disaster management plan in all the libraries to provide a logical approach in dealing with a disaster.

1.1 Disaster in Libraries

A disaster is an unforeseen event which endangers safety of employees and may incur damage to library building, collections, facilities and/or services. Scale of impact of the disaster varies according to the type of disaster and the location where it occurs. A disaster in library can be due to two main factors, i.e., natural and man-made. Natural disasters may include

earthquakes, natural fire, floods, storms and hurricanes, etc. while a man-made disaster may include accidents due to negligence, wilful malicious damage to materials, power failure, wars, rioting and armed conflict, terrorism etc. Disaster could also be in a digital form by using computers to hack into a library's secure automated databases with an intent to either destroy or steal valuable information from the library. A disaster in any form hampers the services provided by the library, impacting the users directly or indirectly in accessing information. The essence of a library is its user, hence, it is important to that a user should be satisfied for the purpose of the library to be fulfilled. In order to minimize the impact of disaster and provide seamless services to the user, it is important that a library should have proper disaster planning and management.

1. Objectives:

Set of well-defined objectives were formulated, for successful completion of the study, which are as follows:

- ❖ To identify the disaster management planning currently in effect in the library and its availability in documented/written form
- ❖ To identify the contribution of a librarian and the committee of the library in planning of disaster management in the library
- ❖ To identify the preventive measures being implemented in the library
- ❖ To identify the problems being faced during implementation of disaster management planning by the library.

4. Methodology

To collect data as per the requirement of the stated objectives under the study, interview method, questionnaire method, literature review and personal observations were used. Initially, existing literature relating to the various topics were referred to gain insights and subsequently prepare a targeted questionnaire. The questionnaire was then distributed to the librarians for collection of information. Thereafter, personal interviews were conducted with staff of the library in some libraries for information collection. Personal visit to some of the libraries were conducted to gather data on availability of preventive measures including fire hydrants/extinguisher, fire alarm, emergency exit plan, etc. The data collected was then tabulated, sorted, scrutinized and construed as per the responses provided by the library staff and personal observations.

5. Limitations of the present Study

This study is an attempt to gather information on the prevailing disaster management practices in library of Dr. B. R. Ambedkar University in Agra district. The study aims to cover diverse issues and extent of disaster management in libraries including organisation of disaster management committees, disaster preparedness, preventive measures currently in use for disaster management, issues confronted by the libraries during execution of disaster management planning, etc. A survey was conducted, for collection of information on the above, among the librarians and staff of Dr. B. R. Ambedkar University of Agra. Findings of the study are completely based on the information provided by the librarian of the library that has been surveyed.

6. Data Analysis:

6.1 Status of disaster management and disaster planning committee

A disaster is an untimely event that may occur anywhere at any time without a warning. Therefore, in order to prevent a library in case of a sudden disaster, preparations should be made by means of constitution of a disaster planning committee which shall be responsible for adequate planning and guiding library and its staff with preventive measures and actions required in case of facing a disaster. This would result in averting losses at the time of disaster. As per the findings of the study, the library has special committee for planning and disaster management which caters to the whole university.

6.2 Initiatives by the Disaster Management and Planning Committee to Prevent Disaster in Libraries

Conduct of orientation programme, constituting of discussions and awareness programmes, among library staff to disseminate information on topics like type of disaster that may affect functioning and services of the library, preventive steps to be taken by individuals in case of a disaster, different measures for management of library resources during different type of disasters, handling of machinery resources being used in the library etc. are the most critical part of disaster management undertaken by the disaster management and planning committee. However, responses received on conduct of such programmes was very poor during the survey. It was informed that the library disaster management committee has not conducted such initiative as of now.

6.3 Documentation of Disaster Management Plan and its availability

Every step and instruction related to disaster planning and resolution applied in the past by the library should be documented in written form. This will ensure availability of an entrusted resolution which can be again applied in the future. During the study, it was found that disaster management plan was not available in written form.

6.4 Role of Librarian in Disaster Management Planning of Library

A disaster in a library can affect its users either directly and/or indirectly, librarians shall always be aware and prepared to face challenge of all kinds that he/she may face. The duty of a librarian should always be dedicated and directed to the library and its users. On examining the contribution of a librarian in disaster management planning in libraries, it was informed by the librarian that as a part of their routine they monitor all the areas of the library in totality and as soon as they come across a problem in library, the same is immediately informed to the concerned committee or the administration.

6.5 Disaster Management Fund

As informed by the librarians under the study, no special fund is allocated for disaster management of the library. This hampers the preparation of disaster management in the library and initiatives for prevention of a disaster in the library. Preparedness for disaster management requires funding for affording costly equipment and preparation of disaster resistant structures essential for the library which the library is not able to afford.

6.6 Issues in Implementation of Disaster Management Plan faced by Librarians and Current Preparedness of Libraries

During the questioning regarding issues faced in implementing disaster management plan, librarians flagged several issues like monetary/financial crunch, lack of support from administration, untrained staff etc.

6.7 Untrained Staff

A skilled and trained staff member may handle adverse conditions more efficiently as compared to untrained staff. Libraries should appoint staff having practicable expertise in handling issues that may occur in libraries. Management, planning for preventive measures and implementation of disaster control theory in libraries should be handled by a well-trained staff that should take the lead in event of a disaster. Survey revealed that the library was equipped with a trained staff.

6.8 Availability of Disaster Prevention Measures

Building with Earthquake resistant structures, emergency electric supply, fire alarm, smoke alarm, emergency exit, grilled windows, property insurance, emergency contacts of important agencies, backup of library data etc. are some of the preventive measures that are used in libraries. The survey revealed that fifteen basics disaster management measures that are in practice in university libraries are being implemented here.

6.9 Disaster Management Developmental Plan in Near Future

As informed by the librarian, there is no disaster management developmental plan planned in near future. But the management of library were willing to form a committee for disaster management developmental plan in near future, and on availability of sufficient funding, they will source and install additional equipment and structure for disaster management.

7. Objective wise Findings from the Study

Current Disaster Management Plan of libraries and its documentation in written form:

Library has a disaster management planning committee. Library has the plan for disaster management and it is available in written documented form.

Role of librarian in disaster management planning of library: The survey revealed that monetary constraints and non-supportive administration were the reason for disaster management being neglected in the library. But, as informed by the librarian, to contribute to safety of the users and staff, each area of the library is inspected and monitored and in case of any complication, the same is informed to the concerned authority for its resolution. This way the library is maintaining safety of the premises.

Preventive measures of disaster management in force in the libraries: There is provision for emergency exit in case of a disaster. Data backup is maintained and updated regularly of prevent loss due to virus of malicious cyber-attack. CCTV cameras are available in all the rooms of the library to keep guard and prevent damage from miscreants and provide information of the whole premises in case of a disaster. Windows of the library are grilled to prevent burglary, building is earthquake resistant and walls are waterproof. The library doesn't go through a security check at closing time. For emergency power backup, the library uses solar panel system.

Issues faced by the library in implementation of disaster management planning: Financial constraints and lack of support from administration in disaster planning are two major problems being faced by the library at present.

8 Libraries must take care of the following

1 An effective plan: A disaster management plan of a library needs to be very flexible. The plan, in order to be effective in case of emergency, must include the library and subsequently the information field including library staff, its readers, sources of information including books and online databases, equipment and infrastructure. A disaster has three stages of its occurrence,

which are before, during and after. An effective disaster management plan should be applicable to all the three steps.

2 Mirror Server: There should be an emergency backup server in a library for all the work being done on the primary server so that in case of failure in primary server, the data would remain safe. For the work being done daily in a library, a data backup should be kept at two or more than two places.

3 Prevention of power cut problems: A lot of damage can be done due to power cuts in the middle of any important work. In such cases, installation of solar power system could provide to be a good alternative of electric power to assure uninterrupted electric power supply.

4 Fund: Fund play an important role in planning of disaster management. Most of the libraries are facing financial problem.

5 Trained Staff: Well trained staff should be appointed in the library, so that they can handle each and every problem occurring in the library easily.

6 Insurance: Insurance is also a big factor. A library must be insured sufficiently.

7 Support from authority: Most of the government run university libraries lack proper attention from authorities; good support from the authority can be a deciding factor for a library to be successful.

9. Conclusion:

Disasters cannot be predicted; they have the potential to cause major losses to resources of the library and cause disruption in its services. Library of Dr. B.R.A. University should be well prepared for a disaster. Due to different problems like financial constraints and lack of support from administration, the area of disaster management in the library is still being neglected. The librarian responded that they monitor each and every tiny aspect of the library and inform concerned authority if they observe something wrong.

The study also reveals that different preventive measures have been taken by the library. Library has used CCTV cameras for security purposes. Among others, the library is an earthquake resistant building. Library have fire and smoke alarm. It has data backup plans so that it can retrieve easily if any disaster occurs.

However, further study needs to be conducted in order to identify the factors responsible for lack of better disaster management practices in the university libraries of Dr. B.R.A. University.

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Study of The Plants of Khusrau Bagh, A Moghul Garden of Prayagraj, U. P.

Dr. Richa Pandey

Asst. Prof. Botany,

Pt. Deen Dayal Upadhyay Govt. Girls' P.G. College,
Rajajipuram, Lucknow, U.P-226017.

Abstract:

*For years, the Moghul gardens are well known for their scenic beauty, symmetry, fountains, gazebos, etc. They were largely meant for recreation and for policy making courtyards. The Khusru Bagh in Prayagraj holds a special place in town and is a well known Mughal garden of the Country. Though small in area, the garden houses trees like Ashoka (*Polyalthia indica.*), Date palms (*Phoenix dactylifera*) particularly the perennials, the shrubs like Hibiscus (*Hibiscus rosa -sinensis*), Oleander (*Nerium odorum*), Caranda (*Carissa carandus*) that line the pavements and walking passages and it also harbours plants that are ornamentals and meant for beautification like Palash (*Butea monosperma.*). The garden also has variety of herbs, grasses and seasonal plants and fruiting trees like Mango (*Mangifera indica.L.*), Jackfruit (*Ficus sp.*), etc. Scented plants like Rose (*Rosa indica*) and Jasmine (*Jasminum grandiflorum*) were given preference. Built by Emperor Akbar in honour of Amir Khusru, the great Mughal court poet and one of the nine gems of Akbar's court, the garden now has lost its past glory only to be taken over by the ASI (Archaeological Survey of India). Sadly, it now remains as a simple mausoleum and is reduced to a famous graveyard for the Muslim Community.*

Key Words- Plants, Trees, Mughal, Gardens, Landscape, Greenery

Introduction:

The Moghuls were well known for their valour, bravery and grit in India and for a large part of their rule reigned in North India. A few of the Moghul Kings were famous for patronising their Moghul Art, Calligraphy, Paintings, Murals and Craftmanship that existed during the Mogul Rule from 1500's till the end of revolt of 1857. Some Mughal rulers loved nature and favoured the construction of gardens and green landscape. Chief amongst them was Emperor Jahangir, Akbar, Shahjahan. During their rule, art and artisans flourished and was recognized and patronized (Crowe and Haywood, 1972). Thereafter even with the decline of the Moghul rule, the Moghul Gardens remained a site of paradise, still known for their scenic beauty, artistry and landscapes. The Mughal Gardens were not only the site for recreation, serenity and peace but also the site for policy formulation and place for major decisions and judgements, that extended beyond the royal court rooms.

A large part of the gardens had geometrical designs and fountains that added space and beauty to the gardens. They were well planned in terms of architecture and walls, fortifications, artifacts, sanitation, scenic beauty, landscape designing, etc.

The Khusrau Bagh was established in 1570's by the great king Akbar to pay due respect to the great Urdu Poet Aamir Khusrau, the court poet and one of the nine gems of Emperor Akbar. It is located in the Khuldabad locality of Allahabad (now Prayagraj), Uttar Pradesh. The city Allahabad was also established by Akbar and the name of the city was kept 'Allahabad' to pay respect to 'The Almighty Allah' whom Akbar worshipped. The Khusrau Bagh, that extends

across 50 acres of land, like a typical Mughal Garden has a long walking pavilion (Fig. 1F), or a Gazebo (Fig.1A) which was meant largely for the women of Haram to gaze at the outside world. It had a series of Fountains (Fig.1A), high, tall surrounding Boundaries (Fig.1G), lines or passages of straight channels of water and is a typical representation of the Mughal Architecture (Fig.1E). It has the tombs of Shah Begum and Nithar Begum (Fig.1C). A small mausoleum is built in the middle of the garden for the same (James,1985). The Bagh had a strong emphasis on the flower beds in pots and pavements, fruiting trees and trees for shade (Fig.1E). Besides, they had many ornamented walls decorated partitions, perforated walls, carved and painted ceilings, pillars with masonry art work, etc.

Material and Methodology-

Several visits to the Khusru Bagh were made in different seasons (from 2016 to 2021) to know the variation in plants, greenery and Vegetation. Photography of the sites, plants, walls and buildings, ornamented structures was carried out with the help of camera Cannon 1.56 L, followed by the comparison with the pictures of other Mughal Gardens and review of literature. Important or interesting points were noted down and recorded. The plants were identified with the help of flora description given in textbooks of Swaminathan, B.P.Pandey, Bendre Kumar and the Herbarium specimens kept in the Duthie Herbarium, Botany Department of The Central University of Allahabad. It followed the Bentham and Hooker System of Classification. They were segregated into trees, shrubs and Herbs.

Observation and Discussion-

The Mughals were undoubtedly nature lovers. Their appreciation for flowering plants and fruit trees were exhibited in the form of murals, wall paintings, carvings, etc. The walls were painted with floral designs and geometrical patterns with flowers as basic themes (Fig1B). Natural colours were used and vegetative dyes were employed by artisans for colouring the objects. Turmeric (*Curcuma longa*) was used for yellow colour while for red or vermillion, *Bixa orellana* seeds were used. For purple colour, Lavender petals extract was used. The paintings on the ceilings had a resemblance to the Rajasthani Miniature paintings (Gill et.al.2014) while some of the ceilings were beautifully decorated with inlay art work (Fig 1 D) of Agra's The Great Taj Mahal. However some of these art work had been eroded with the passage of time and was being restored by ASI officials. The use of fast and virant colour palette made the walls more attractive.

The following table lists some of the common plants that thrived in the campus of Khusru Bagh including Trees, Shrubs and Herbs since ages.

S.No.	Botanical Name	Habit	Common Name	Discription
1.	<i>Thevetia peruviana</i>	Shrub	Kaner	Yellow to pink flowers, ornamental Fig.2A
2.	<i>Rosa indica</i>	Shrub	Rose	Adnate stipules, infinite anthers, flowers scented Fig.2E
3.	<i>Hibiscus rosa sinensis</i>	Shrub	Hibiscus	Pink flowers blooms throughout the year, perennial Fig.2F

4.	<i>Jasminum grandiflorum</i>	Shrub	Jasmine	White beautifully scented flowers, bloming in Summers only Fig.2I
5.	<i>Clitoria turnatea</i>	Climber	Blue Bell Vine	Blue coloured pretty flowers Fig.2C
6.	<i>Phoenix dactylifera/Roystonea indica</i>	Tree	Date Palm	Palm tree with palmate leaves Fig.1F
7.	<i>Polyalthia indica</i>	Tree	Ashoka	Leaves with wavy or serrated margins, ornamental Fig.1C
8.	<i>Mangifera indica.L.</i>	Tree	Mango	Fruit bearing tree Fig.1G
9.	<i>Nerium odorum</i>	Tree	Oleander	Bell shaped flowers, blooms all throuout the year, yellow coloured Fig.1E
10.	<i>Carissa carandus</i>	Shrub	Caraunda	Berries as fruits are red to green to yellow coloured Fig.1F
11.	<i>Butea monosperma</i>	Tree	Palash/Dhak	Red coloured petals, beautiful, ornamental Fig.1E
12.	<i>Thuja occidentalis</i>	Shrub	Thuja/Morpankhi	Green plant, ornamental Fig.1E
13.	<i>Ixora arbortristis</i>	Shrub	Ixora	Pink to White flowers with nectar, Fig.2B
14.	<i>Lilium arvensis</i>	Shrub	Lily	Red to pink coloured leaves Fig.2G
15.	<i>Tagetus grandiflora</i>	Shrub	Genda	Yellow petals, blooms all throughout the year Fig.2L

Conclusion-

The Khusru Bagh stands today in style and grandeur to face the future. It has witnessed the rise and fall of the Moghul regime, it's glory, pride and decline. The Khusru Bagh like any other Moghul Garden enjoys the magnitude of popularity with reference to the modern concept of Gardening, be it from legendary History, Architecture or Landscapes, to Flora and Fauna that existed in the past still exists today, though modified or loaded with new varieties. The garden still retains it's status of a must see to Visitors or tourists visiting Prayagraj. The Khusru Bagh has brought in new Gardening styles, water supply engineering, channels of fountains, the use of water in various forms, a new style of plant sets, the hedge plants, the ornamentals, the scented shrubs, etc. all add to the beautiful geometric design. All these components add to make Khusru Bagh an iconic Garden beauty even till date.

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Fig 2 Shrubs and Herbs of Khusru Bagh

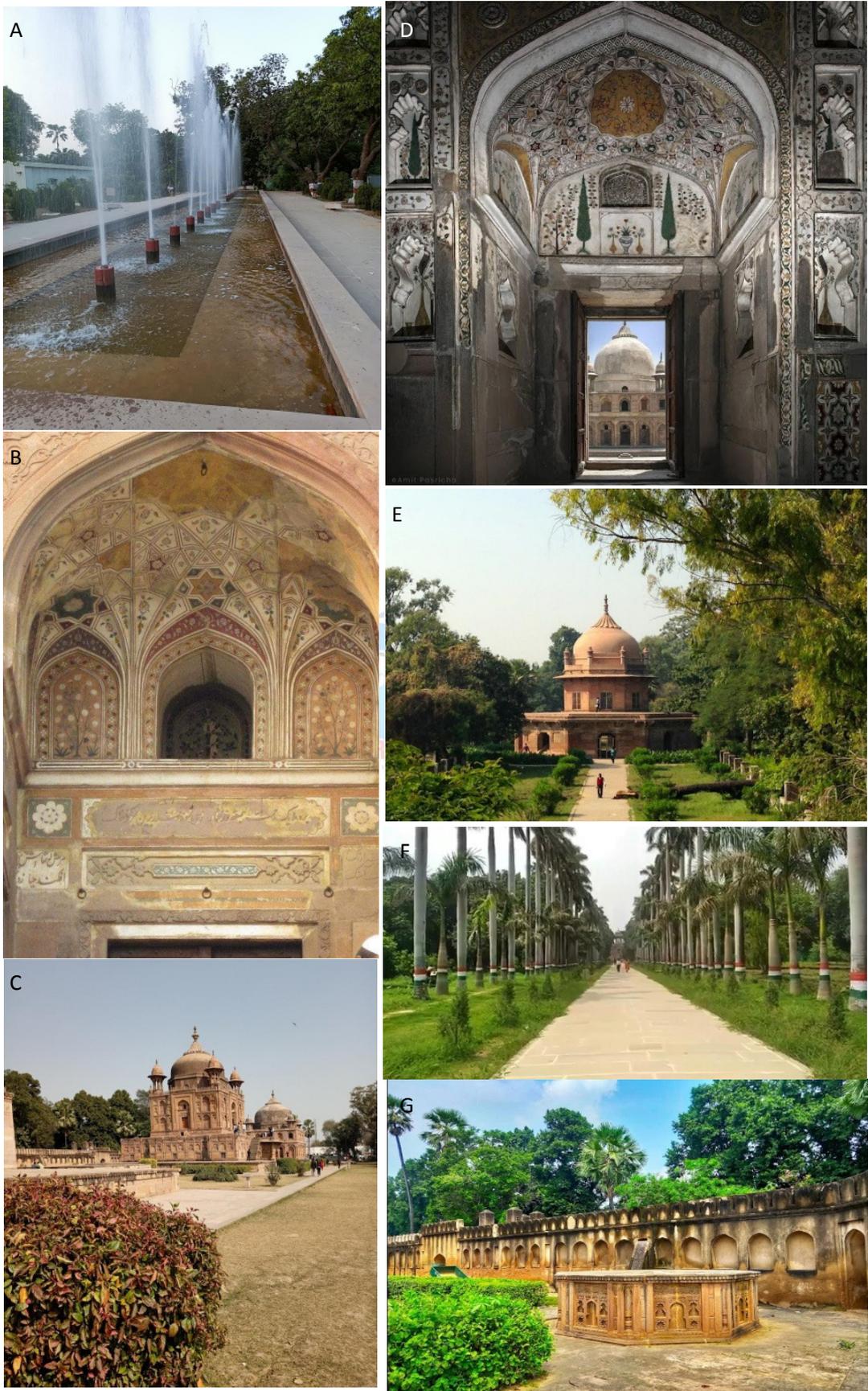


FIG 1 PLANTS IN KHUSRU BAGH. A MUGHAL GARDEN.PRAYAGRAJ AND IT'S WALL

A Descriptive Survey to Assess Challenges, Quality of Working Life and Coping Strategies among Police Officers Working in Selected Police Stations, Warangal, Telangana.

Mrs. Rajamani Vempati.

Department of Nursing,

A hero is someone who has given his or her life to something bigger than oneself.

- *Joseph Campbell*

Abstract

Back ground:

A healthy job is one in which human resource pressures are appropriate for their talents & resources, as well as degree of control they have over their work. Because health is defined as condition of whole physical, mental, & social well-being, rather than simply absence of sickness or disability (WHO, 1986). healthy working environment is one in which there are not only no harmful situations but also several that are beneficial to one's health. The success of this agreement between community & police depends on a variety of factors, including mutual respect, trust, & a wish for individuals to be treated equally & fairly. But this also depends on in-depth training, a comprehension of and respect for rights, laws that direct law enforcement personnel toward objectives that the public wants policing to achieve, and prompt and effective sanctions for officers and departments that fail to work toward those objectives.

Problem Statement: A descriptive survey to assess challenges, quality of working Life, & coping strategies among police officers working in selected police stations, Hanamkonda, Warangal, Telangana.

Research Objectives

1. To assess challenges faced by police officers working in selected police stations.
2. To assess quality of working life among police officers working in selected police stations
3. To assess different coping strategies adapted by police officers working in selected police stations.
4. To find out correlation among challenges & quality of working life among police officers working in selected police stations.
5. To determine association among challenges, quality of working life & coping planning with selected variables.
6. To assess impact of an intervention program on challenges, quality of working life & coping planning among police officers.

Review of literature

Congruent with Best John “review of literature is brief summary of previous researchers & writing of recognized experts providing evidences that investigator is known with what facts exist about new things & what is to be still finding out about hidden information.”

Jayasathya R and Swathi K (2016), in their article, titled work life balance among women police in Coimbatore city, directed concentrate on "Work & Family Struggle of Ladies

Police in Coimbatore City. This study uncovers that because of weighty work load i.e., 12 hours per day in seven days prompts hypertension & stress. Nonetheless, these respondents have figured out available resources to conquer pressure by re-establishing to yoga, reflection & actual activity. Thus, review proposes carrying game plan to plan work life of lady police constables & support them for these exercises which would assist them with coping up with word related risks.

Patricia R J and Joseph A D (2016), explored on various components of lady police administration & its ramifications to family, as definitive viewpoints, work time, financial status, family board & occupation related pressure. analyst puts that failure among lady police can be diminished by working on idea of work life by giving engaging course of action of compensations & affirmation for their work & by further developing work place.

Bhuvaneshwari D and Thirumoorthi P (2019) in their article titled, work life balance among women police in Salem city, Tamil Nādu, led review to recognize impacts of work life balance & to investigate fundamental elements which cause work family difficulties among various classifications of lady faculty. Findings of this study uncover that time of respondents & their family factors have tremendous impacts in guaranteeing work life balance.

Thus, outcomes propose that strong working circumstances, representative health program, & ideal advancement & move planning can guarantee work - life balance among respondents.

Gomes, A. R., & Afonso, J. M. (2016), in their article titled, occupational stress & coping among Portuguese military police officer concluded that their consideration was attracted to essential drivers, impacts, & survival strategies for stress. Logical substance examination was utilized to break down significant text parts, and information order came straightaway. The principal wellsprings of stress referenced by members were parts of actual gig & relational connections at work. Independently, impacts of stressors were affecting family, apparent, mental, & physical/wellbeing spaces. The critical thinking procedures utilized to deal with essential driver of stress in expert vocation were dynamic showdown & close to home control (e.g., circumstance acknowledgment). With these specialists, future examination bearings & down to earth implications are thought of Coping

Methodology:

The methodologies used in this investigation are quantitative. Quantitative data may be objectively measured in terms of numbers & examined using statistical methods. Quantitative data is based on large number of participants & allows for broad generalization. To examine challenges, QWL, & coping strategies among police officers working in selected police stations in Warangal, Telangana, investigator used descriptive cross-sectional approach. The present study was carried out in 3 phases namely –Phase 1(a): To delineate socio-demographic details of police officers using survey methodology. Consisted of 2 parts. Part A: Personal information of police officers includes demographic distinctive of respondents & information pertaining to age, gender, religion, educational qualification, marital status, spouse employment, type of family, living with family, total family members, & living in. Part B: work profile of police officers provides information related to work including employment rank, monthly income, work schedule, working hours in day, travel time to work area & total service in department.

Phase 1(b): -To assess challenges of police officers in work environment, to assess challenges of police officers in home environment, to assess quality of working life among police officers, to assess coping strategies adopted by police officers using survey methodology. Phase

II: Interventional Program. To find out target sample has low levels of QWL & coping strategies for counselling & motivation to improve QWL by intervention program. Phase III: To plan, implement & assess intervention program to assess QWL, & coping strategies among police officers. This stage was adopted pre-test – post-test design. Findings of the study revealed that the challenges of police officers at working environment strongly agreed excess work load following long working hours & excessive supervision. Whereas least percent of police officers strongly agreed that Sexual Harassment, following Increased gender bias. Highest percent of police officers were neutral about adaptability. Most of police officers had average level of challenges, whereas least percent of police officers had high level of challenges at working environment.

The study discovered that factors include an excessive work load, poor housing arrangements, and a lack of justice in the workplace. Promotion & rewards for top performance, constant risk exposure, and dealing with catastrophic incidents in the workplace obligation, a lack of a welfare support system, a lack of leisure to rest and relax, and unfavourable attitudes of co-workers at police officers' work sites, members of the public were a source of tension. These were in addition to; insufficient work resources, frequent moves, insufficient medical coverage, unfortunate compensations & working for extensive stretches of time.

Correlation between Challenges, QWL & Coping strategies among Police Officers

The Correlation among Challenges, Workplace Quality, & Coping strategies among Police Officers is subject of this section. Karl Pearson's correlation formula was used to determine association among challenges, QWL, & coping techniques among police officers, & 'r'-value was computed. Following is null hypothesis:

H0₁: There is no important Correlation between Challenges, QWL, & Coping strategies among Police Officers.

Correlation among Challenges, QWL, & Coping strategies among Police Officers

N=300

Variables		r	P value	Inference
Challenges of Police Officers at Working Environment	Problems of police officers at Home	0.764 ^{**}	.000	S
Challenges of Police Officers at Working Environment	Quality of Working Life	0.584 ^{**}	.000	S
Challenges of Police Officers at Working Environment	Coping planning	0.458 ^{**}	.000	S
Problems of police officers at Home	Quality of Working Life	0.505 ^{**}	.000	S
Problems of police officers at Home	Coping planning	0.414 ^{****}	.000	S
Quality of Working Life	Coping planning	0.360 ^{**}	.000	S

The table 97 display that there was important co relation among Challenges of Police Officers at Working Environment & problems of police officers at home, Quality of Working Life, & Coping planning. There was important co relation among Problems of police officers at Home & Quality of Working Life, & Coping planning. Also, there was important co relation among Quality of Working Life & Coping strategies. Hence null hypothesis rejected & research hypothesis was accepted.

Association of challenges, QWL & coping strategies with selected variables.

This section deals with association of challenges, QWL & coping planning with selected variables.

To find association of challenges, QWL & coping planning with selected variables ' χ^2 ' value was calculated. following null hypothesis were stated.

H0₂: There is no important association of challenges, QWL & coping planning with selected variables

Table 102: Association of challenges with selected Demographic Variables.

N=300

Demographic variable	df	Challenges of Police Officers at Working Environment			Problems of police officers at Home		
		χ^2	P value	Inference	χ^2	P value	Inference
Age	6	35.034	0.000	S	13.737	0.033	S
Gender	2	26.618	0.000	S	14.998	0.001	S
Religion	2	2.400	0.301	S	3.420	0.181	S
Educational status	6	30.426	0.000	S	91.376	0.000	S
Marital status	4	8.343	0.080	S	8.310	0.081	S
Spouse employment	6	90.148	0.000	S	63.433	0.000	S
Type of family	6	51.457	0.000	S	46.258	0.000	S
Living with family:	2	6.065	0.048	S	25.350	0.000	S
Total family members	4	26.613	0.000	S	28.319	0.000	S
Living in	6	18.425	0.001	S	44.897	0.000	S
Employment Rank	8	105.790	0.000	S	26.004	0.001	S
Monthly income in rupees	6	100.200	0.000	S	39.625	0.000	S
Work schedule	2	12.415	0.002	S	13.892	0.001	S
Working hours in day	4	26.484	0.000	S	54.182	0.040	S
Travel time to work area	4	37.240	0.000	S	10.005	0.000	S
Total service in dept.	6	86.246	0.000	S	77.162	0.000	S

The table (102) shows that there was important relationship among obstacles faced by police officers in workplace & issues faced by police officers at home with demographic characteristics,

as estimated chi square values were greater than 0.05 at 0.05 level of significance. As result, null hypothesis (H02) was dismissed & research hypothesis was accepted.

Association of Quality of Working Life & Coping strategies with selected Demographic Variables.

N=300

Demographic variable	df	Quality of Working Life Level			Coping planning		
		χ^2	P value	Inference	χ^2	P value	Inference
Age	6	35.680	0.000	S	59.127	0.000	S
Gender	2	31.957	0.000	S	6.696	0.035	S
Religion	2	1.334	0.513	S	0.883	0.643	S
Educational status	6	67.435	0.000	S	21.771	0.001	S
Marital status	4	17.687	0.001	S	22.513	0.000	S
Spouse employment	6	34.833	0.000	S	30.601	0.000	S
Type of family	6	12.272	0.056	S	96.539	0.000	S
Living with family:	2	53.859	0.000	S	29.288	0.000	S
Total family members	4	71.790	0.000	S	6.205	0.000	S
Living in	6	36.209	0.000	S	78.156	0.000	S
Employment Rank	8	55.212	0.000	S	32.928	0.000	S
Monthly income in rupees	6	30.769	0.000	S	31.63	0.000	S
Work schedule	2	12.614	0.002	S	45.581	0.000	S
Working hours in day	4	32.037	0.000	S	98.914	0.000	S
Travel time to work area	4	22.900	0.000	S	112.47	0.000	S
Total service in department	6	93.964	0.000	S	69.077	0.000	S

Because estimated chi square values were more than p value at 0.05 threshold of significance, table (103) shows that there was important correlation among quality of working life & coping

techniques with chosen demographic characteristics. As result, null hypothesis (H02) was dismissed & research hypothesis was accepted.

Range, Mean S.D of Pre-test & Post-test Challenges of Police Officers at Working Environment

Challenges of Police Officer at Working Environment	Pre-Test	Post test
Range	20-75	23-39
Mean	47.11	34.54
Std. Deviation	9.82	4.45
Median	48	36

The table (107) display that post-test mean (34.54+_4.45), median (36), range (23-39) scores of challenges of police officers at working environment were less than pre-test mean (47.11+_9.82), median (48), range (20-75) of challenges of police officers at working environment. results indicate that intervention programme was effective to reduce challenges among police officers at working environment.

Range, Mean S.D of Pre-Test & Post-Test Problems of Police Officers at Home

	Pre-Test	Post test
Range	15-65	27-49
Mean	44.62	40.65
Std. Deviation	12	7.45
Median	44.50	39

The table (109) display that post-test mean (40.65+_7.45), median (39), range (27-49) of problems of police officers at home were less than pre-test mean (44.62+_12), median (44.50), range (15-65) of problems of police officers at home. results indicate that intervention programme was effective to reduce problems among police officers at home.

Range, Mean S.D & Median of Pre-Test & Post-Test QWL

QWL	Pre-Test	Post test
Range	25-94	68-101
Mean	74.51	88.70
Std. Deviation	13.78	11.86
Median	76.50	92

The table (112) display that post-test mean (88.70+_11.86), median (94), range (27-49) of quality of working life scores were more than pre-test mean (74.51+_13.78), median (76.50), range (68-101) of quality of working life scores. results indicate that intervention programme was effective to increase quality of working life among police officers.

Determining Impact of Intervention Programme on Level of challenges, QWL & coping strategies among Police Officers.

This section deals with Impact of intervention programme on level of challenges, QWL & coping strategies among police officers.

To evaluate Impact of intervention programme on level of challenges, QWL& coping strategies among police officers 'Z' value was calculated. following null hypotheses were stated.

H₄. There will be important difference in pre-test post-test scores of challenges, QWL & coping strategies among police officers.

H₀₄: There will be no important difference in pre-test post-test scores of challenges, QWL & coping strategies among police officers.

Range, Mean, Standard Deviation & 'Z' Allocation of Samples Congruent with Challenges, Quality of Working Life & Coping strategies

Areas	PRE-TEST		POST TEST		Z	P
	Range	Mean +_SD	Range	Mean +_SD		
Challenges at Working Environment	20-75	47.11+_9.82	23-39	34.54+_4.45	12.57	< .00001 VHS
Problems at Home	15-65	44.62+_12	27-49	40.65+_7.45	2.70	0.008 HS
Quality of working life	25-94	74.51+_13.78	68-101	88.70+_11.86	9.080	< .00001 VHS
Cope Inventory Scores	15-65	61.78+_14.46	27-49	89.80+_8.11	16.21	< .00001 VHS

The table display that post test range, & mean scores of challenges of police officers at working environment scores & problems of police officers at home were less than pre-test, range, & mean scores.

While post-test range & mean scores of qualities of working life & Cope Inventory Scores were higher than pre-test range & mean scores, pre-test range & mean scores were lower. There was substantial difference in pre-test & post-test scores on difficulties, working life quality, & Inventory Scores. At 0.05 level of significance, estimated Z values were greater than p value.

As result, null hypothesis (H₀₄) was dismissed & research hypothesis was accepted. findings show that intervention programme was helpful in reducing obstacles & improving police officers' quality of life & coping skills.

Correlation among Challenges, QWL & Coping strategies among Police Officers

The Correlation Among Challenges, Workplace Quality, & Coping Planning among Police Officers is subject of this section. To determine if there is link among challenges, work quality, & coping techniques among police officers. 'r' value was computed using Karl Pearson's correlation formula. following is null hypothesis.

H₀: There is no important Correlation among Challenges, Quality of Working Life & Coping strategies among Police Officers.

Correlation Among Challenges, QWL & Coping Planning Among Police fficers

Variables		r	P value	Inference
Challenges of Police Officers at Working Environment	Problems of police officers at Home	0.513**	.000	S
Challenges of Police	Quality of	-0.173*	.014	S

Officers at Working Environment	Working Life			
Challenges of Police Officers at Working Environment	Coping strategies	-0.338**	.000	S
Problems of police officers at Home	Quality of Working Life	0.115	.106	NS
Problems of police officers at Home	Coping planning	0.005	.948	NS
Quality of Working Life	Coping strategies	0.545**	.000	S

Table 120 shows substantial positive correlation among challenges faced by police officers in workplace & issues faced by police officers at home. There was substantial negative relationship among obstacles faced by police officers in workplace & quality of life, as well as coping mechanisms, indicating that larger challenges, worse quality of life, & coping strategies. There was strong link among Workplace QWL & Coping Planning. null hypothesis () was thus rejected, whereas research hypothesis () was supported. However, there was no substantial link among police officers' home problems & their work life quality or coping mechanisms. As result, null hypothesis () has been accepted, whereas research hypothesis has been denied.

Association of Pre-Test&Post test challenges, quality of working life & coping strategies with selected variables.

This section deals with association of pre test&post-test challenges, quality of working life & coping planning with selected variables.

To find association of pre test&post test challenges, quality of working life & coping planning with selected variables 'χ²' value was calculated. following null hypothesis were stated.

H₀: There is no important association of pre test&post test challenges, quality of working life & coping planning with selected variables.

Association of Pre-Test&Post Test challenges with Selected Demographic Variables.
N=100

Demographic variable	Challenges of police officers at working Environment							
	Pre test				Post test			
	DF	χ ²	P value	Inference	DF	χ ²	P value	Inference
Age	6	7.745	0.257	NS	3	1.527	.676	NS
Gender	2	4.748	0.093	NS	1	0.010	0.920	NS
Religion	2	1.245	0.537	NS	1	4.003	0.045	NS
Educational status	6	8.836	0.183	NS	3	3.057	0.383	NS
Marital status	4	1.712	0.788	NS	2	1.062	0.588	NS
Spouse employment	6	27.008	0.000	S	3	1.561	0.668	NS
Type of family	6	13.730	0.033	S	3	0.985	0.805	NS
Living with family:	2	1.344	0.511	NS	1	0.627	0.428	NS
Total family members	4	13.511	0.009	S	2	3.077	0.215	NS
Living in	4	4.235	0.375	NS	2	1.962	0.375	NS

Employment Rank	8	15.358	0.053	NS	4	5.347	0.254	NS
Monthly income in rupees	6	7.596	0.269	NS	3	1.371	0.712	NS
Work schedule	2	2.560	0.278	NS	1	1.802	0.179	NS
Working hours in day	4	2.218	0.696	NS	2	0.792	0.673	NS
Travel time to work area	4	5.418	0.247	NS	2	3.295	0.193	NS
Total service in department	6	11.437	0.076	NS	3	5.349	0.148	NS

The Table (121) shows that there was strong link between pre-test problems of police officers in workplace & spouse employment, family type, & total family members.

As result, null hypothesis (H₀) for these demographic factors was rejected since estimated chi square values were greater than p value at 0.05 threshold of significance. Pre-test problems of police officers in workplace had no significant relationship with other demographic characteristics. As result, null hypothesis (H₀) was supported, whereas research hypothesis for other demographic factors was rejected.

As estimated chi square values were smaller than p value at 0.05 level of significance, there was no significant relationship between post-test difficulties of police officers in workplace & chosen demographic characteristics. As result, null hypothesis (H₀) was accepted & research hypothesis was dismissed.

Correlation of Challenges, QWL & Coping strategies among Police Officers

The Correlation Among Challenges, Workplace Quality, & Coping Planning among Police Officers is subject of this section. To determine if there is link among challenges, work quality, & coping techniques among police officers. 'r' value was computed using Karl Pearson's correlation formula. following is null hypothesis.

H₀: There is no important Correlation among Challenges, Quality of Working Life & Coping strategies among Police Officers.

Table 120: Correlation of Challenges, QWL & Coping strategies Among Police Officers

Variables		r	P value	Inference
Challenges of Police Officers at Working Environment	Problems of police officers at Home	0.513**	.000	S
Challenges of Police Officers at Working Environment	Quality of Working Life	-0.173*	.014	S
Challenges of Police Officers at Working Environment	Coping strategies	-0.338**	.000	S
Problems of police officers at Home	Quality of Working Life	0.115	.106	NS
Problems of police officers at Home	Coping planning	0.005	.948	NS
Quality of Working Life	Coping strategies	0.545**	.000	S

Table 120 shows substantial positive correlation among challenges faced by police officers in

workplace & issues faced by police officers at home. There was substantial negative relationship among obstacles faced by police officers in workplace & quality of life, as well as coping mechanisms, indicating that larger challenges, worse quality of life, & coping strategies. There was strong link among Workplace QWL & Coping Planning. null hypothesis () was thus rejected, whereas research hypothesis () was supported. However, there was no substantial link among police officers' home problems & their work life quality or coping mechanisms. As result, null hypothesis () has been accepted, whereas research hypothesis has been denied.

Scope for Future Research

1. Comparative study can be extended to several batches of police officers.
1. To explore relationship among specific officers' personality & QWL.
2. To study comparative study of association of QWL & coping planning among police officers with reference to community, religion, geographical region in different police departments.
3. Same study can be conducted with large sample batches.
4. The challenges were determined to be excessive. The report suggests that the security service use medicinal measures, for example, representative help programs, a positive work atmosphere, and improved management efficiency.
5. Finally, the study suggests that an employee assistance programme be developed and implemented to help police personnel cope with challenges. A training component should be included in the curriculum to provide police with knowledge and abilities to improve quality of life.

According to earlier studies, police personnel working for major police departments had more stress than those working for small and mid-sized agencies (Warner, 2019). By carrying out study that is specifically focused on those particular variables, it would also be beneficial to examine and compare these differences.

Conclusion

This study shed important light on challenges that police officers face on job, QWL, and the coping strategies to handle the situations and reduce stress levels. The findings of this study indicate that police officers who operate in high-crime areas, where more violent crimes happen, experience greater stress. Police officers who were interviewed for this article used both unhealthy and proactive coping mechanisms to deal with stress.

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Impact of New Education Policy 2020 of India on Library & Library Professionals

Dr. Vaishali Marutirao Chaoudhari

Librarian

Lalbahadur Shastri College, Partur, Jalna, Maharashtra, India.

If the education is identical with information, the libraries are the greatest sagas of the world and the encyclopedia the greatest rushis. – Swami Vivekananda.

Abstract: -

The library profession is one that serves the educational system of any nation, therefore both the educational and library systems must be in nexus if effective and efficient formulation and implementation of policies will be established. The impact of the library can be felt at all levels in the education sector, starting from schools to the Academic libraries. Hence the importance of the library in the educational development of a country cannot be over-estimated.

The library policy objectives have not been difficult to identify yet elements of the most authoritative of all, that is, National Policy of Education (NPE); which were approved on recommendations by the Federal Ministry of Education (FME) is grossly non-implemented. This paper reviews the aims of the NPE, new education policy (NEP) and the roles of library and library professionals play in its implementation. The issues to be critically analyzed are the national policy in education, the roles of library & library professionals in its implementation.

Key words : National Policy on Education (NPE), New Education Policy (NEP) Impact and Implementation, Libraries.

Introduction :

Indian Education system is the second largest in the world.

The NPE came about as a result of the National curriculum conference held in quest for a new national education. The national Education policy envisions on India-centered education system that contributes directly to transformation our nation sustainably into an equitable & vibrant knowledge society, by providing high quality education to all.

The NPE from the first edition noted that libraries are one of the most important education services. The first edition of NPE (1981), emphasized that every State Ministry of Education used (SME) needs to provide funds for the establishment of libraries in all educational institutions and to train librarians and library assistants for this service (pg. 31). Olayemi and Aina (2007) noted that with these statements, the provision of school libraries in the education system has been accorded the needed recognition in the NPE. Oyeniya and Olaifa, (2013) noted that the library can also help in gathering feedback on government policies from the library users. If the government can get adequate feedback on government policies, it will help her in the formulation of new policies as well as improving existing ones.

Education is one of the largest activities in the world. It is as important as any resource is for a nation's economic and industrial development because it is the key to human resource development. Through Education we can achieve knowledge and information, which is power and this power, is very essential for the development of personality of individuals as well as the nations.

The National Policy on Education, announced by the Government of India in May 1986, has a brief recommendation on libraries as follows : “ Together with the development of books, a

nation-wide movement for the improvement of existing libraries and the establishment of new ones will be taken up. Provision will be made in all educational institutions for library facilities and the status of librarians improved". Libraries are central to the education system. The National policy on Education should have given a better treatment to the, question of libraries. However, the subsequent follow-up exercise of preparing a document on Programmed of Action on National Policy on Education (August 1986) has dealt with some aspects of library development in educational institution)

Education without library is like a body without soul, a vehicle without an engine and a building merely a collection of bricks without cement. Education and library service cannot live apart from the other.

According to the NEP 2020 Policy – “Education human potential, developing an equitable and development. Providing universal access to continued ascent and leadership on the global social justice and equality, scientific advanced preservation”.

This new education policy is to build Indian’s universal society, country while positively impact to provide high-quality educational opportunity society.

All practices included in the Library and Colleges must be inclusive and equitable groups of individuals to receive the services of a library.

➤ **What for Libraries in New education Policy of India?**

The New Education Policy 2020 (NEP2020) the first education policy of the 21st century to replace the 34 years old National Policy on Education (NPE), 1986. The NEP 2020 is based on the foundational pillars Access, Affordability, Equity, Quality, and Accountability.

A National Book Promotion Policy will be formulated and extensive initiatives will be taken to increase the accessibility and availability of learning materials across geographies and languages.

Here are the developments in the digital libraries and school/public libraries, the government will work on, to promote the readership habit, maximum use of libraries, to ensure the availability and accessibility of books to the students without any barrier of language, technology, and geographies.

Developing enjoyable and inspirational books

Enjoyable and inspirational books will be developed for the students at all levels in all local and Indian Languages. Steps will be taken to ensure the accessibility of books to disable and differently-abled persons. The government, with the help of both public and private sector institutions, will devise strategies to improve the quality and attractiveness of books.

Making the availability and accessibility of books in school/public libraries

The government will emphasize making books available extensively in both schools and public libraries. The government will take steps to ensure the availability and accessibility of books to all, including persons having disabilities and differently-abled persons using modern ICT technologies across the country. The main emphasis will be on the socioeconomically disadvantaged areas and rural/remote areas.

Building a culture of reading across the country

Both public and school libraries will be extensively enhanced to increase the readership and readers across the country. Public libraries will be strengthened and modernized. An adequate supply of books that cater to the needs and interests of communities will be ensured.

Establishing more children's library and mobile library and social book clubs across the country to support widespread reading and community development.

ICT equipped school/public libraries in villages

To serve the community and the students particularly in villages during non-school hours, the ICT equipped school/public libraries will be set up. Book club facilities will be developed to further promote widespread reading.

Libraries will be strengthened in the higher education systems

Academic libraries are the hearts of institutions and the government will strengthen and increase the procurement of reading materials like books, journals, and other learning and teaching materials. Steps will be taken for further enhancement of digital libraries and online accessibility of library books. E-content will be provided in regional languages also.

Use of Public library spaces for adult education

The government will work on providing suitable infrastructure to ensure adult education and lifelong learning to interested adults. The public library spaces will be used for ICT equipped adult education courses and other activities for community engagement and enrichment.

Devise appropriate CPD for library staff

To realize the aim of establishing, developing, and strengthening existing libraries and catering to the needs of all types of readers across the country, the government will devise appropriate career pathways development for the library staff and ensure for the proper functioning.

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The Role of human Resource Management in Academic Library

Prof. Nitesh E. Motghare

Head/Librarian, Department of Library,

Jyotirao Fuley Samajkarya Mahavidyalaya Umred, Nagpur

Introduction: -

Human resource is mandatory a replacement conception at invests the share of management and organization and become customary throughout the primary nineteen seventy centuries.

In the libraries there are 50 many resources, such as reading material, Human resources and technical resources but today human resources are acknowledge as the most valuable and important asset in any organization as well as in the libraries.

Library is a technical type of organizations, where most of staff engaged or appointed possess professional qualification and technical training. It will not be suitable and good in the interest of the Library to terminate transfer and replace the employees all of sudden or after a short internal of time.

The Library and science professionals are thought of together of the important components which will extremely build the Library as knowledge center. When the libraries staffs are capable enough then those many contrite of knowledge resources which help to create a center of attention of users.

Literature Review

Hafijull mandal (2020) human resource management and its aspect of libraries this article present a range of relevant and useful study of human resource management to provide a successful modern service at the library of 21st century 8 research team (2008) modern library management has become more challenging and complete due to innovation development of sophisticated technologies.

Objective of Study

- Understand the concept of HRM and importance of human resources in libraries.
- Explain the function of human resource management in libraries.
- Identify the level and types of staff required by libraries.
- Describe the daily work of libraries.

Concept of Human Resource Management

The concept of human resource management is philosophical in nature while the concept of personnel management has a practical connotation the former aims at enhancing the aggregate gains arising out of the organizational workforce the efforts directed towards the systematic development of human resources from the core issue of the management of human resources

The management is this an essential component of an enterprise through which plans and policies of production and distribution are drawn by the human beings.

Role of Human Resource Management In Libraries

The implementation of management techniques in libraries how become necessary to active the exact timely and personalized information service.

In libraries management can be classified into 3 broad group's namely top middle lower management.

1) Top Management:-

University library VC and University librarian are included in the top management.

2) Middle Management:-

In the middle management the deputy librarian and assistant librarian are included.

3) Lower Management:-

In libraries are third level consist of professional assistant library assistant office staff etc. the works of the personals of lower level management are under the control of middle management.

Function of HRM Library

1) Job Analysis

Job analysis is the process of investigating and analyzing the function in a work assignment or group of assignment

2) Job Description

A job description is absolutely essential for the purpose of recruitment training needs and later for performance evaluation of the personnel of the libraries.

3) Selection of Personnel

Selection of the personnel specifically in the libraries has become a critical process these day because it requires a heavy investment so money.

The selection procedure sold help in getting more and more information of applicant.

4) Recruitment of the staff

The staffing in libraries consist of the different categories of persons with experience and expertise.

5) Motivation of the staff

Motivation maybe defined as the complex of force inspiring a person at work to intensify his willingness to use his capacities for the achievement of certain observation.

6) Training of staff

The training of the stop in libraries includes orientation programs for new entrants to the libraries.

7) Leadership

The term leadership therefore can be define as the exercise of influence in an organization in which the other persons attributes leadership qualities to the leader.

8) Staff manual

Staff manual are guides of work routines giving details description of rules procedure and methods of performing various activities.

9) Performance evaluation

Performance evaluation means the systematic evaluation of each individual of the library with respect to his performance on the job performance evaluation in also termed as performance appraisal.

Conclusion

The constant wish for modification is another pressure that intensifies the requirement for human development its believe that libraries like several different organization each within the

external and internal setting of the organization library unit of measurement service adjusted institution and so they invariably and so they invariably have to compelled to establish their worth to the parent organization National library mission on library take necessary step to satisfy the country demand through library education and coaching.

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मूल्य शिक्षा क्यों ?

सौरभ सिंह

असिस्टेंट प्रोफेसर, एम०एड० विभाग
बुन्देलखण्ड महाविद्यालय, झाँसी, उ०प्र०

शोध सारांश

वैश्वीकरण के इस संघर्षमयी युग में विज्ञान और तकनीकी क्रांति ने मनुष्य को भौतिकतावादी और अवसरवादी बना दिया है। व्यक्ति स्वयं को आधुनिक समझकर पशु प्रवृत्ति की ओर अग्रसर है। वर्तमान में समय-समय पर घटित हो रही घटनाओं जिसमें व्यभिचार व हत्याएँ सर्वप्रमुख हैं, इनके साथ कट्टरता, धर्मांधता, असहिष्णुता, क्षेत्रवाद, सम्प्रदायवाद, आतंकवाद जैसी संकीर्ण विचारधाराओं में बढ़ोत्तरी का कारण व्यक्ति में हो रही मूल्यों की कमी है। मूल्यों की कमी के कारण एक व्यक्ति दूसरे व्यक्ति को अलग धर्म, सम्प्रदाय, जाति, वर्ग, क्षेत्र का तो मान लेता है परंतु यह भूल जाता है कि वह भी सर्वप्रथम उसके जैसे हाथ, पैर, शरीर वाला एक मानव ही है। रविन्द्रनाथ टैगोर के निबन्ध "सभ्यता और प्रगति" के एक अंश में लिखा है, जिसमें साथ खेलने वाले बच्चों में से एक बच्चे को महँगा खिलौना मिल जाता है उस खिलौने को पाकर वह बच्चा सबसे दूर चला जाता है और एकाकी हो जाता है। टैगोर के शब्दों में "अपनी उत्तेजना में वह एक चीज भूल गया- वह तथ्य जो उस वक्त उसे बहुत मामूली लगा था कि इस प्रलोभन में एक ऐसी चीज खो गई जो उसके खिलौनों से कहीं श्रेष्ठ थी, एक श्रेष्ठ और पूर्ण बच्चा। उस खिलौने से महज उसका धन व्यक्त होता था, बच्चे की रचनात्मक ऊर्जा नहीं, न ही उसके खेल में बच्चे का आनन्द था और न ही उसकी खेल की दुनिया में साथियों को खुला निमन्त्रणा" व्यक्ति में मूल्यों की कमी को पूरा करने हेतु प्रयास यदि समय रहते न हुए तो इसके और भी भयावह परिणाम हृदय विदारक घटनाओं के रूप में हमारे सामने आएँगे। प्रस्तुत लेख में एक सभ्य समाज की स्थापना हेतु मूल्य, मूल्य शिक्षा एवं मूल्य शिक्षा के स्रोत, उद्गम, आवश्यकता व उद्देश्यों का विवेचन किया गया है साथ ही मूल्य शिक्षा के पाठ्यक्रम हेतु संबंधित सुझाव भी प्रस्तुत किये गए हैं।

शिक्षा का उद्देश्य व्यक्ति को मात्र पुस्तकीय ज्ञान न देकर व्यक्तित्व का सर्वांगीण विकास करना है। शिक्षा ऐसी हो जिससे व्यक्ति के व्यक्तित्व के बौद्धिक, मानसिक, शारीरिक, सामाजिक, सांस्कृतिक, नैतिक, चारित्रिक, व्यावसायिक तथा आध्यात्मिक पक्ष का विकास संभव हो सके। परंतु वर्तमान परिस्थितियों में शिक्षा मात्र धनोपार्जन का साधन मात्र बनकर रह गई है और अपने वास्तविक उद्देश्यों को भूलती जा रही है। वर्तमान समय में संपूर्ण विश्व में अराजकता और वैमनस्यता की स्थिति उत्पन्न हो गई है जो नित नवीन अमानवीय घटनाओं के रूप में हमारे सामने आ रही है। १५-१६ मई २००८ को घटित 'आरुषि हत्याकाण्ड' जिसमें डाक्टर माता-पिता द्वारा अपनी पुत्री की निर्मम हत्या की गई, १६ दिसम्बर २०१२ को दिल्ली में हुआ बलात्कार जिसे 'निर्भया काण्ड' के नाम से जाना गया और जिसकी वीभत्सता सम्पूर्ण विश्व ने देखी, २७ नवम्बर २०१६ को हैदराबाद में पशु-चिकित्सक युवती को बलात्कार के बाद जिन्दा जला देने की घटना आदि ये विचार करने पर मजबूर करती है कि शिक्षा का कोई पक्ष अभी अछूता है। दिसम्बर २००७ का सुरेन्द्र कोली और मोहिन्दर सिंह पंधेर का मामला जो 'निठारी काण्ड' के नाम से जाना गया मानवता की क्रूर हत्या करता है। धार्मिक कट्टरता के नाम पर हत्याएँ, क्षेत्रवाद के नाम पर हत्याएँ, नक्सली हमले आतंकवाद के रूप

में ९/११ को घटी अमेरिकी घटना, २६/११ का मुम्बई हमला आदि ये बताते हैं कि वैश्विक रूप से शिक्षा के उद्देश्य पूर्ण नहीं हो रहे हैं। एक तरफ हम शिक्षा में प्रगति कर रहे हैं और दूसरी ओर दिनों-दिन बढ़ती आपराधिक घटनाएं शिक्षा की प्रगति पर एक प्रश्न चिन्ह लगाती हैं।

परिवार में छोटे-बड़ों का आदर भाव, पति-पत्नी के सौहार्दपूर्ण प्रेम संबंध, भाई से भाई का प्रेम धीरे-धीरे अपने अंतिम पड़ाव की ओर अग्रसर है। जगह-जगह बढ़ते वृद्ध आश्रमों की संख्या अपने आप ये बताती है कि मूल्यों की हानि की गति कितनी तेज है। व्यक्ति समाज द्वारा अनुमोदित इच्छाओं की पूर्ति करे, व्यक्ति को वास्तविक संतुष्टि की प्राप्ति हो, मनुष्य मानवता से ओत-प्रोत हो और उसके अंदर की पशुता समाप्त हो जाए साथ ही मानव जाति को अराजकता, वैमनस्यता, असहिष्णुता, हिंसा आदि से बचाने के लिए आवश्यकता है मूल्यों की पुनर्स्थापना करने की जिसे भौतिकता की अंधी दौड़ में भुला दिया गया है।

“सर्वे भवन्तु सुखिनः सर्वे सन्तु निरामया।

सर्वे भद्राणी पश्यन्तु मा कश्चित् दुःखभाग् भवेत्॥”

(गरुण पुराण, ३५७५१)

अर्थात् सभी सुखी हो, सभी रोग मुक्त रहें, सभी मंगल के साक्षी बनें और किसी को भी दुख का भागी न बनना पड़े। जब मनुष्य के हृदय से इस प्रकार के निर्मल भाव प्रवाहित हो पड़ें तभी शिक्षा अपने वास्तविक उद्देश्यों की प्राप्ति में सफल होगी। इस भाव के प्रवाह हेतु मनुष्य में मूल्यों का संलयन अतीव आवश्यक है जो कि मूल्य शिक्षा द्वारा ही संभव है। मूल्य शिक्षा को ठीक से समझने के लिए पहले मूल्य को समझना होगा।

मूल्य क्या है ?

सामान्यतः मूल्य शब्द का आशय किसी वस्तु के लेनदेन में प्रयोग होने वाले शब्द से होता है इसके अन्य पर्याय के रूप में कीमत, दाम आदि शब्दों का प्रयोग भी कर लिया जाता है परंतु यहाँ मूल्य शब्द का आशय व्यक्ति में निहित उसके सद्गुणों से है। मूल्यों को पुष्पगुच्छ की भाँति हृदय में समेट लेने वाला व्यक्ति ही अपनी जीवन पद्धति का निर्माण करता है व अपने व्यक्तित्व का विकास करता है। पुष्प की सुगंध की भाँति मूल्यों की सुगंध से ओत-प्रोत व्यक्ति सभ्य समाज के निर्माण में अपनी महत्वपूर्ण भूमिका का निर्वहन करता है। मनुष्य एक सामाजिक प्राणी है जिसे अपने सारे काम समाज में रहकर समाज के लिए करने होते हैं। समाज में मानव व्यवहार को नियंत्रित और निर्देशित करने के लिए आदर्शों अर्थात् नियमों का निर्माण किया गया है जिसके पालन की अपेक्षा समाज के प्रत्येक सदस्य से की जाती है। ये आदर्श ही 'मूल्य' कहलाते हैं। जिसके द्वारा सामाजिक व्यवस्था सुचारु रूप से चलती है।

भारतीय परिपेक्ष्य में मूल्य शिक्षा की स्थापना द्वारा मूल्य शिक्षा का ऐसा स्वरूप निर्धारित हो सकता है जिसे सम्पूर्ण विश्व अपना सकता है। भारत विश्व का एकमात्र देश है जहाँ विभिन्न धर्मों, संस्कृतियों व देशों के लोग रहते हैं इसलिए भारत में अपनायी जानी वाली मूल्य शिक्षा को विश्व के समस्त देश अपना सकते हैं। चूंकि भारत एक लोकतांत्रिक संप्रभु राष्ट्र है यहाँ सभी धर्मों, वर्गों, संस्कृतियों को समभाव व समदृष्टि से देखा जाता है अतः भारत में मूल्य शिक्षा में उन मूल्यों का स्थान होना चाहिए जिसमें सभी धर्मों, वर्गों व संस्कृतियों की विविधताओं का समावेश हो।

भारत की किसी भी नीति के निर्धारण का आधार संविधान में वर्णित मूल्य हैं और ये मूल्य सभी धर्म, दर्शन, संस्कृति व समाज के मूल्यों के सार हैं इनके आधार पर मूल्य शिक्षा की संकल्पना निश्चित तौर सफल होगी। भारतीय लोकतंत्र के ६ मूल्य अन्य मूल्यों को अंतर्निहित किये हुए हैं वे मूल्य हैं- स्वतंत्रता

मूल्य, समानता मूल्य, भ्रातृत्व मूल्य, न्याय मूल्य, समाजवाद मूल्य और धर्मनिरपेक्षता मूल्य। स्वतंत्रता मूल्य व्यक्ति की गरिमा को सम्मान देता है और सभी मनुष्यों को अपने विचार रहन-सहन, खान-पान, धर्म-आचरण की स्वतंत्रता उस सीमा तक देता है जहाँ तक वह दूसरे की स्वतंत्रता में बाधा न डालें। समानता मूल्य सभी मानव मात्र को समान दृष्टि से देखता है। व्यक्ति किसी भी धर्म, जाति, सम्प्रदाय, संस्कृति, विचारधारा का हो सकता है परंतु समानता मूल्य व्यक्ति-व्यक्ति में भेदभाव नहीं करता है। भ्रातृत्व मूल्य व्यक्ति के अंदर प्रेम, सहानुभूति और सहयोग की भावना का विकास करता है इस भावना का सभ्य समाज के प्रत्येक नागरिक में होना आवश्यक है। न्याय मूल्य सत्य, ईमानदारी और कर्तव्य को अपने अंदर समाहित किये हुए है। समाजवाद मूल्य भिन्न-भिन्न समाज के व्यक्तियों, रंग-रूप, अमीर-गरीब में भेदभाव खत्म करके समाज के सभी व्यक्तियों को बराबर मानते हुए सभी व्यक्ति के कार्य और श्रम की गरिमा को महत्व देता है। धर्मनिरपेक्षता मूल्य सभी धर्मों को समान महत्व देते हुए सभी धर्मों का आदर करता है जिससे कोई धर्म छोटा या बड़ा नहीं रह जाता है और धर्म-संघर्ष की भावना का स्थान राष्ट्र प्रेम ले लेता है जिसमें प्रत्येक व्यक्ति के हृदय में राष्ट्र के प्रति समर्पण भाव जाग्रत हो जाता है। अतः भारतीय लोकतांत्रिक मूल्यों के आधार पर ही मूल्य शिक्षा को दिया जाना सर्वदा उचित है ये मूल्य निर्विरोध और सर्वस्वीकार्य हैं।

मूल्य शिक्षा की आवश्यकता क्यों ?

वर्तमान समय में मानव निर्माण के लिए मूल्य शिक्षा की आवश्यकता निम्न प्रकार है-

१. वर्तमान समय के वैज्ञानिक युग में ऐसे सुखी समाज की स्थापना हेतु जो ग्लानि, घृणा और भेदभाव आदि से मुक्त हो।
२. व्यक्ति को जीवन के अन्तिम सत्य से अवगत कराने हेतु जिससे उसे भागती हुई जिन्दगी में ठहराव मिलें।
३. भौतिकतावादी युग में व्यक्ति धन को ही भगवान मान बैठा है तो यह बोध कराने के लिए कि धन से मन नहीं खरीदा जा सकता है। इस हेतु मूल्य शिक्षा की आवश्यकता है।
४. अवसरवादी युग में लोगों में लालसा की प्रवृत्ति बढ़ चुकी है व्यक्ति में निस्वार्थ भाव जाग्रत करने हेतु मूल्य शिक्षा की आवश्यकता है।
५. पाश्चात्यवाद और आधुनिकीकरण की इस अंधी दौड़ में, जिसका अंत नहीं है, में से व्यक्ति को बाहर निकाल कर लाने के लिए मूल्य शिक्षा की आवश्यकता है।
६. मानव जीवन शैली को उन्नत और समर्थ बनाने के लिए मूल्य शिक्षा की आवश्यकता है।
७. आज के समय में व्यक्ति केवल दूसरों से लेना चाहता है परंतु देना कुछ नहीं चाहता है। उसे यह बोध कराना भी आवश्यक है कि सृष्टि में लेना जितना आवश्यक है देना उससे अधिक आवश्यक है अन्यथा संतुलन की स्थिति बिगड़ जाएगी ।
८. व्यक्ति की समाज और परिवार से अलग होने प्रवृत्ति बढ़ रही है जिसे मूल्य शिक्षा द्वारा ही रोका जा सकता है।
९. बूढ़े माता-पिता का साथ छोड़ना, एकाकी जीवन जीना आदि अनैतिक प्रवृत्तियों से मुक्ति दिलाने हेतु मूल्य शिक्षा की आवश्यकता है।
१०. समाज में कर्मठ, निस्वार्थ भाव से सेवा करने वाले वर्ग यथा- शिक्षक, डाक्टर, वकील, राजनेता आदि वर्गों में सेवाभाव जाग्रत करने के लिए मूल्य शिक्षा की आवश्यकता है।

99. अनैतिकता, भ्रष्टाचार, दुराचार आदि विकलांग मानसिक स्थिति से मुक्ति दिलाकर एक सभ्य संवेदनशील, समदृष्टि-समभाव वाले समाज की स्थापना करने के लिए मूल्य शिक्षा की आवश्यकता है।
92. व्यक्ति का नैतिक एवं चारित्रिक विकास करने हेतु मूल्य शिक्षा की आवश्यकता है।
93. राष्ट्र के लिए ऐसे नागरिकों का निर्माण करना जो राष्ट्रहित में अपने व्यक्तिगत हितों को त्यागकर राष्ट्रहित में कार्य कर सकें। इसके लिए मूल्य शिक्षा की आवश्यकता है।
94. वर्तमान समय में ऐसे विद्यार्थी जो दूसरे देशों में अध्ययनरत हैं और वहाँ की चकाचौंध से प्रभावित होकर वहीं बसने का सपना संजोये हैं उनको अपनी मातृभूमि के प्रति कतव्यों को बोध कराने के लिए मूल्य शिक्षा की आवश्यकता है।
95. आधुनिक शिक्षा के नाम पर सिर्फ यह शिक्षा दी जा रही है कि ज्यादा से ज्यादा धन कैसे कमाया जा सकता है, जिससे चारित्रिक निर्माण का पक्ष गौड़ हो जाता है जिसका विकास केवल मूल्य शिक्षा द्वारा ही संभव हो सकता है।

मूल्य शिक्षा के उद्देश्य क्या हैं ?

मूल्य शिक्षा साधन है साध्य नहीं अर्थात् मूल्य शिक्षा, शिक्षा के अन्य अध्ययन विषयों की भाँति शिक्षा के उद्देश्यों की प्राप्ति में सहायता प्रदान करती है अन्य स्वतंत्र अध्ययन विषयों की भाँति इसके भी निम्न उद्देश्य होने चाहिए-

9. बालक को प्रेम, सेवा, त्याग, आदर, सत्य, धैर्य, ईमानदारी आदि सदगुणों का बोध कराना और इन्हें अंतर्मन में धारण करने हेतु प्रेरित करना।
2. व्यक्ति के अंतर्मन से धर्मांधता, जातिवाद, लिंगभेद, क्षेत्रवाद, भाषावाद, सम्प्रदायवाद, संस्कृतिवाद, रंगभेद आदि को समाप्त करना।
3. व्यक्ति के व्यक्तित्व का नैतिक, चारित्रिक और आध्यात्मिक आदि समस्त पक्षों का विकास करना।
4. व्यक्ति के हृदय में धर्म, वर्ग, जाति, सम्प्रदाय, संस्कृति, लिंग, रंग आदि के लिए समभाव एवं समदृष्टि उत्पन्न करना।
5. राष्ट्र के लिए सभ्य और सुसंस्कृत नागरिकों का निर्माण करना जो व्यक्तिगत स्वार्थ की जगह लोकहित और राष्ट्रहित को महत्व दें।
6. व्यक्ति को सही और गलत इच्छाओं में अंतर का बोध कराकर सही और समाज सम्मत इच्छाओं की पूर्ति करने हेतु प्रेरित करना।
7. मूल्यों और व्यक्तिगत धारणाओं में अंतर का बोध कराकर व्यक्ति को मूल्यों को अपनाने के लिए प्रेरित करना।
8. मूल्यों को आत्मसात करने हेतु व्यक्ति के अंदर संवेदनशीलता होना आवश्यक है अतः व्यक्ति के अंदर संवेदनशीलता का गुण उत्पन्न करना।
6. मूल्य शिक्षा का उद्देश्य मात्र मूल्यों की सूचनात्मक शिक्षा देना ही नहीं है बल्कि उनका उद्देश्य व्यक्ति के व्यवहार के द्वारा समाज में परिलक्षित होना है।
90. व्यक्ति के अंदर किसी कार्य करने से पूर्व उसे मूल्य की कसौटी पर कसकर परखने की योग्यता उत्पन्न करना।
99. 'एक मानव-सभ्य मानव' निर्माण के साथ ही 'एक समाज-सभ्य समाज' की स्थापना करना।
92. समाज में घट रही अनैतिक, दुराचारिक, अमानवीय घटनाओं की समाप्ति कर मानवीय मूल्यों की स्थापना करना।

मूल्य शिक्षा का पाठ्यक्रम कैसा हो ?

मूल्य शिक्षा का पाठ्यक्रम पूर्णतः बालकेंद्रित होना चाहिए जिसमें बालक की आवश्यकताओं एवं रुचियों का ध्यान रखा जाए। प्राथमिक, माध्यमिक एवं विश्वविद्यालय स्तर पर बालक की आवश्यकताओं एवं रुचियों का स्तर भी भिन्न-भिन्न होता है इसलिए तीनों स्तर पर पाठ्यक्रम का स्तर भी भिन्न-भिन्न होना चाहिए।

प्राथमिक स्तर- इस स्तर पर बालकों को मूल्यों का सामान्य ज्ञान कराना चाहिए। मूल्यों के ज्ञान के लिए बालकों को पाठ्यक्रम में मूल्यात्मक कहानियाँ जैसे- पंचतंत्र की कहानियाँ एवं महापुरुषों की जीवनी, उनका बलिदान, उनके कृत कार्य आदि को शामिल करना चाहिए साथ ही विभिन्न विद्यालयीय गतिविधियों, विद्यालयीय कार्यक्रमों जैसे- १५ अगस्त (स्वतंत्रता दिवस), २६ जनवरी (गणतंत्र दिवस) पर मूल्याधारित कहानियों, कविता पाठ, नाटक-मंचन आदि में भाग लेकर मूल्य शिक्षा का अध्ययन कराना चाहिए। इससे प्राथमिक स्तर पर बालक उपरोक्त कार्यों के द्वारा मूल्यों के बारे में सामान्य ज्ञान प्राप्त करेंगे और मूल्य शिक्षा के प्रति लालायित होंगे। इस स्तर पर केवल क्षेत्रीय एवं राष्ट्रीय स्तर के महापुरुषों और सरल मूल्यात्मक कहानियों को शामिल किया जाना चाहिए। महापुरुषों में विभिन्न धर्मों के प्रणेता व प्रवर्तकों जैसे- महावीर स्वामी, गौतम बुद्ध, गुरुनानक, ईसा मसीह, कबीर, रहीम, देशभक्तों में महारानी लक्ष्मीबाई, वीर शिवाजी, महात्मा गाँधी, चन्द्रशेखर आजाद आदि को पाठ्यक्रम में शामिल कर पाठ्यक्रम का निर्माण करना चाहिए। इसके माध्यम से बालकों में खेल-खेल में और कहानियों के द्वारा मूल्य शिक्षा प्रदान करने का कार्य करना चाहिए। प्राथमिक स्तर पर माता-पिता के प्रति आदर भाव और श्रद्धा भाव विकसित करने के लिए श्रवण कुमार की कथा, राष्ट्र प्रेम जाग्रत करने हेतु भगत सिंह, महाराणा प्रताप या अन्य के बलिदानों की गाथाएँ पाठ्यक्रम में समाहित की जानी चाहिए। इसी प्रकार अन्य प्रसंग पाठ्यक्रम में जोड़कर अन्य मूल्यों को भी जाग्रत करना चाहिए।

माध्यमिक स्तर- माध्यमिक स्तर पर बालक किशोरावस्था में प्रवेश करता है और वह ज्ञान को अपनी बुद्धि की कसौटी पर उतारकर परखना चाहता है। इस अवस्था में उसके अंदर अपार ऊर्जा के साथ सवालियों का तूफान भी होता है जिसे सही मार्ग प्रशस्त करना अतिआवश्यक है। इस स्तर पर बालक को मूल्य शिक्षा के द्वारा मूल्यों का बोध व उनके प्रति समझ विकसित कराने के साथ ही मूल्यों को आत्मसात कराने का प्रयास भी किया जाना चाहिए। इस स्तर पर कहानियों के स्थान पर महापुरुषों, राष्ट्रभक्तों का सम्पूर्ण जीवन परिचय, उनका व्यक्तित्व, कृतित्व व संघर्ष को विस्तार से अध्ययन में शामिल करना चाहिए। प्रसिद्ध लेखकों द्वारा लिखित मूल्यात्मक साहित्य को भी पाठ्यक्रम में स्थान दिया जाना चाहिए। इसी के साथ ही विश्व स्तर के महान व्यक्तियों यथा- सुकरात, प्लूटो, अरस्तु, कार्लमाक्स, लेनिन, मुसोलिन आदि का जीवन दर्शन भी अध्ययन में सम्मिलित करना चाहिए। माध्यमिक स्तर पर विश्व के समस्त धर्मों, वर्गों, संस्कृतियों का अध्ययन भी पाठ्यक्रम में सम्मिलित करना चाहिए जिससे इस स्तर पर तुलनात्मक रूप से मूल्यों के प्रति समझ विकसित की जा सके। इस स्तर पर विद्यालयीय गतिविधियों में मूल्यात्मक कार्यक्रमों को विशेष स्थान व प्रोत्साहन दिया जाना चाहिए। मूल्यों को आत्मसात् करने के लिए समाज सेवा कार्यक्रम, राष्ट्रीय सेवा योजना (एन०एस०एस०) को माध्यमिक स्तर से ही प्रारम्भ किया जाना चाहिए। राष्ट्रीय कैडेट कोर(एन०सी०सी०) व स्काइट-गाइड कार्यक्रमों में भाग लेने हेतु विद्यार्थियों को अतिरिक्त प्रोत्साहन प्रदान करने के लिए इन कार्यक्रमों के प्रमाणपत्रों के आधार पर नौकरी में आरक्षण या अधिभार प्रदान किया जाना चाहिए। माध्यमिक

स्तर पर बालकों के व्यवहार में समाजसेवा, राष्ट्रप्रेम, माता-पिता, बुजुर्गों के प्रति सम्मान आदि मूल्य समाज में परिलक्षित होने चाहिए।

विश्वविद्यालयीय शिक्षा (उच्च शिक्षा)- इस स्तर पर मूल्य शिक्षा का अध्ययन विस्तार होना चाहिए। इस स्तर पर मूल्यों का दृढ़ीकरण हो जाना चाहिए। इस स्तर पर विभिन्न दर्शनों को भी पाठ्यक्रम का हिस्सा बनाना चाहिए। इस स्तर पर समस्त भारतीय व पाश्चात्य धर्मों का दर्शन, समाज व संस्कृतियों का दर्शन, अनेक भारतीय व पाश्चात्य विद्वान जैसे- महात्मा गाँधी, रविन्द्रनाथ टैगोर, अरविन्द, स्वामी विवेकानन्द, तिलक, मालवीय, लेनिन, मुसालिन, कार्लमार्क्स, सुकरात, प्लूटो, अरस्तु आदि का जीवन दर्शन, समाजदर्शन पाठ्यक्रम में सम्मिलित करना चाहिए। भारतीय वैदिक दर्शन अर्वाचीन दर्शनों का स्रोत है उच्च शिक्षा के मूल्य शिक्षा पाठ्यक्रम में इसे सम्मिलित करना अत्यावश्यक है वैदिक दर्शन सार्वभौमिक, सार्वकालिक व सार्वदेशिक है तथा मानव मात्र के लिए उपयोगी है उच्च मूल्यों से युक्त वैदिक दर्शन उच्च मूल्यों वाले समाज के निर्माण में सर्वाधिक सहायक है। वैदिक दर्शन में व्यक्ति के लिए उच्च परिवार मूल्य, उच्च समाज मूल्य, उच्च शिक्षा मूल्य, उच्च व्यवहार मूल्य स्थापित हैं जिनका अध्ययन उच्च शिक्षा में अनिवार्यता से कराया जाना चाहिए। इस स्तर पर बुद्धि और विवेक पूर्णतः जाग्रत हो जाता है अतः उच्च शिक्षा में अनेक दर्शनों का तुलनात्मक अध्ययन भी सम्मिलित किया जाना चाहिए। उच्च शिक्षा में शोध का महत्वपूर्ण स्थान है अतः मूल्य शिक्षा में शोध द्वारा नवीन शिक्षण विधियों, सिद्धांतों का प्रतिपादन किया जाना चाहिए। शोध के द्वारा समय-समय पर समाज के लिए उपयोगी मूल्य सिद्धांतों को समाज में प्रस्तुत किया जाना चाहिए।

निष्कर्ष

मूल्य शिक्षा को शिक्षा के प्रत्येक स्तर पर स्वतंत्र अनिवार्य अध्ययन विषय के रूप में शामिल करना चाहिए और इसकी परीक्षा भी अन्य विषयों की भाँति करायी जानी चाहिए जिससे विद्यार्थी इसका गम्भीरता पूर्वक अध्ययन करे। विश्वविद्यालयीय स्तर पर भी अन्य मुख्य विषयों जैसे- इतिहास, अर्थशास्त्र, राजनीति, हिन्दी, अंग्रेजी, समाजशास्त्र की भाँति मूल्य शिक्षा का भी संचालन किया जाना चाहिए। कुछ वर्षों पश्चात मूल्य शिक्षा के सुखद परिणाम हमारे सामने आएँगे। समाज में भेदभाव, वैमनस्यता एवं घृणा को खत्म करने और सभ्य समाज के निर्माण के लिए मूल्य शिक्षा अग्रणी भूमिका निर्वाह करेगी।

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स्टैच्यू ऑफ यूनिटी का महत्त्व और एक भारत-श्रेष्ठ भारत की अवधारणा

Priti Shivhare,

Research Scholar, Department of Political Science,
Bundelkhand University, Jhansi, UP (India)

Email-prishivhare93@gmail.com, Mobile Number- 07905451436

शोध सारांश-

आमजन को प्रभावित एवं प्रेरित करने के उद्देश्य से स्टैच्यू-निर्माण की प्रथा प्राचीन काल से ही देखी जा सकती है। भारतीय इतिहास की बात करें तो मौर्यकालीन सारनाथ का सिंह स्तम्भ आज भी प्रत्येक भारतीय के लिए प्रेरणा स्रोत तथा भारत का राष्ट्रीय चिन्ह है। वर्तमान युग तक आते-आते स्टैच्यू- निर्माण की तकनीक एवं शैली में अनेक परिवर्तन देखे गए हैं किन्तु इस प्रथा की निरंतरता इस तथ्य में निहित है कि आज भी स्टैच्यू-निर्माण लोगों के दिलो-दिमाग पर प्रभाव डालने के उद्देश्य से पूरे विश्व में किया जाता है। अमेरिका का 'स्टैच्यू ऑफ लिबर्टी', चीन का 'स्प्रिंग टेम्पल बुद्धा', ब्राजील का 'क्राइस्ट द रिडीमर' इसके कुछ उदाहरण हैं। इसी प्रथा का अनुसरण करते हुए भारत में 'स्टैच्यू ऑफ यूनिटी' का निर्माण किया गया है। वास्तव में 'स्टैच्यू ऑफ यूनिटी' प्रधानमंत्री श्री नरेंद्र मोदी की 'एक भारत श्रेष्ठ भारत' की पहल का प्रतिनिधित्व करता है। सरदार वल्लभ भाई पटेल की मूर्ति का निर्माण 'स्टैच्यू ऑफ यूनिटी' के रूप में करना प्रधानमंत्री जी के इस विजन का मूर्तरूप है कि "सरदार पटेल ने हमें एक भारत दिया है, जिसे हम 130 करोड़ भारतीयों को श्रेष्ठ बनाना है।"

शोध-पत्र का उद्देश्य -

प्रस्तुत शोध-पत्र का उद्देश्य 'स्टैच्यू ऑफ यूनिटी' के महत्त्व को समझना है तथा यह जानना है कि 'एक भारत-श्रेष्ठ भारत' के उद्देश्यों को प्राप्त करने में यह किस प्रकार सहायक है। इसके साथ ही प्रधानमंत्री श्री नरेंद्र मोदी द्वारा की गई 'एक भारत श्रेष्ठ भारत' की पहल समाज को किस प्रकार प्रभावित करेगी? 'स्टैच्यू ऑफ यूनिटी' किस प्रकार इसे आम जन तक पहुँचाने में सहायक है? इस पहल के अंतर्गत किये जा रहे अन्य प्रयास किस प्रकार राष्ट्र निर्माण में सहायक हैं? शोध में इन प्रश्नों का उत्तर जानने का भी प्रयास किया गया है।

परिचय-

सम्पूर्ण विश्व में मानवीय क्षमताओं और प्रेरणाओं के लिए स्टैच्यू हमेशा से प्रेरक रहे हैं। चाहे अमेरिका में स्टैच्यू ऑफ लिबर्टी हो, चीन में 'स्प्रिंग टेम्पल बुद्धा' का स्टैच्यू हो, ब्राजील में 'क्राइस्ट द रिडीमर' का स्टैच्यू हो, कोलंबिया यूनिवर्सिटी में 'सिंबल ऑफ नॉलेज' हो अथवा भारत में 'स्टैच्यू ऑफ यूनिटी' स्टैच्यू व्यक्ति के कार्यों एवं व्यवहार पर मनोवैज्ञानिक प्रभाव डालते हैं। इस प्रकार पूरी दुनिया में स्टैच्यू का निर्माण मानव आचरण को प्रभावित करने के उद्देश्य से किया जाता है।

भारत अद्वितीय संस्कृति वाला देश है और विश्व की प्राचीनतम और महानतम सभ्यताओं का प्रतिनिधित्व करता है। उत्तर में हिमाच्छादित हिमालय, दक्षिण में उष्ण कटिबंधीय तटवर्ती क्षेत्र, दक्षिण-पश्चिम में पश्चिम घाट के जंगल, पूर्व में ब्रह्मपुत्र घाटी के उपजाऊ क्षेत्र तथा पश्चिमोत्तर में थार के रेगिस्तान भारत की विविधतापूर्ण भौगोलिक दशाओं को दर्शाते हैं। पर्वतमाला और समुद्र इसे शेष एशिया से पृथक करते हैं और एक विशिष्ट भौगोलिक पहचान प्रदान करते हैं। (1) विविधता में एकता को प्रदर्शित करती ये भारतीय परिस्थितियां ही

‘एक भारत श्रेष्ठ भारत’ की अवधारणा का स्रोत हैं और ‘स्टैच्यू ऑफ यूनिटी’ को इस अवधारणा के मोनोग्राम के रूप में स्थापित किया गया है।

स्टैच्यू ऑफ यूनिटी-

‘एक भारत-श्रेष्ठ भारत’ का प्रतीक तथा प्रेरणा ‘स्टैच्यू ऑफ यूनिटी’ है। इस स्टैच्यू पर ‘एक भारत श्रेष्ठ भारत’ अंकित है। यह गुजरात राज्य में स्थित भारत के प्रथम उप प्रधानमंत्री तथा प्रथम गृहमंत्री सरदार वल्लभ भाई पटेल को समर्पित भव्य प्रतिमा है। ‘स्टैच्यू ऑफ यूनिटी’ की आधारशिला दिनांक 31 अक्टूबर, 2013 को गुजरात के तत्कालीन मुख्यमंत्री तथा वर्तमान भारतीय प्रधानमंत्री श्री नरेंद्र मोदी द्वारा सरदार पटेल के जन्मदिन पर रखी गई। 31 अक्टूबर, 2018 को देश के प्रधानमंत्री श्री नरेंद्र मोदी ने यह प्रतिमा राष्ट्र को समर्पित की।(2)

यह स्टैच्यू विश्व की सबसे ऊंची प्रतिमा है। इसकी ऊंचाई 182 मीटर (597 फीट) है। नर्मदा जिले में भरुच के पास सरदार सरोवर बांध से 32 किलोमीटर दूर साधू बेट नामक स्थान पर यह स्थित है। देश के 6 लाख ग्रामीणों ने इस मूर्ति के निर्माण के लिए लोहा दान किया था। इस अभियान में एक सुराज प्रार्थना-पत्र बना था जिस पर 2 करोड़ लोगों ने हस्ताक्षर किया था। सरदार वल्लभ भाई पटेल एकता ट्रस्ट ने इसके निर्माण में महत्वपूर्ण भूमिका निभाई है। ‘स्टैच्यू ऑफ यूनिटी’ 1700 टन वजनी है।(3)

एक भारत-श्रेष्ठ भारत- *अवधारणा-

सरदार वल्लभभाई पटेल की जयंती मनाने के लिए 31 अक्टूबर, 2015 को आयोजित राष्ट्रीय एकता दिवस के दौरान विभिन्न क्षेत्रों के लोगों के बीच एक सतत और संरचित सांस्कृतिक संपर्क का विचार प्रधानमंत्री श्री नरेंद्र मोदी द्वारा रखा गया था। माननीय प्रधानमंत्री ने यह प्रतिपादित किया कि सांस्कृतिक विविधता एक आनंद है जिसे विभिन्न राज्यों और संघ राज्य क्षेत्रों के लोगों के बीच पारस्परिक संपर्क और पारस्परिकता के माध्यम से मनाया जाना चाहिए ताकि देश भर में समझ की एक सामान्य भावना प्रतिध्वनित हो। देश के प्रत्येक राज्य और संघ राज्य क्षेत्र को एक समय अवधि के लिए किसी अन्य राज्य संघ राज्य क्षेत्र के साथ जोड़ा जाएगा, जिसके दौरान वे भाषा, साहित्य, खान-पान, त्योहारों, सांस्कृतिक कार्यक्रमों, पर्यटन आदि के क्षेत्रों में एक दूसरे के साथ एक संरचित जुड़ाव रखेंगे।(4)

विजन-

1. भारत की अवधारणा को एक ऐसे राष्ट्र के रूप में मनाना जिसमें अलग-अलग भौगोलिक क्षेत्रों की विभिन्न सांस्कृतिक इकाइयाँ एक दूसरे के साथ मिलकर सहभागिता करती हैं। विविध भाषाएँ, व्यंजन, संगीत, नृत्य, रंगमंच, चलचित्र एवं फिल्म, हस्तशिल्प, खेल, साहित्य, त्यौहार, पेंटिंग, मूर्तिकला आदि की यह शानदार अभिव्यक्ति लोगों को पारस्परिक सम्बन्ध और भाईचारे की मूल कड़ी को आत्मसात करने में सक्षम बनाएगी।
2. विशाल भूभाग में फैले आधुनिक भारत राज्य की निर्बाध अभिन्न अंग के बारे में, जिसकी सुदृढ़ नींव पर देश की भौगोलिक- राजनैतिक शक्ति सुनिश्चित है, लोगों की जागरूकता बढ़ाना जिसमें कि सभी लाभान्वित हों।
3. विभिन्न संस्कृतियों और परम्पराओं के घटकों के बीच बढ़ती अंतर- संयोजनमकता के बारे में बड़े पैमाने पर लोगों को बताना, जो राष्ट्र-निर्माण की भावना के लिए बहुत महत्वपूर्ण है।
4. भारत के विभिन्न राज्यों में रहने वाले विभिन्न संस्कृति और परम्पराओं के लोगों के बीच ‘अनजान भूमि में अजनबी’ की भावना को कम करना।

5. इन अंतर-सांस्कृतिक आदान प्रदान के माध्यम से राष्ट्र के प्रति जिम्मेदारी और स्वामित्व की भावना उत्पन्न करना, क्योंकि यह अंतर-निर्भरता की मैट्रिक्स को स्पष्ट रूप से बनाने का इरादा रखता है।
6. एक ही साथ राष्ट्र की विविधता और एकता का उत्सव मनाना।
7. लोगों में आपसी समझ और प्रशंसा की जीवंतता को पैदा करना और देश की एकता की एक समृद्ध मूल्य प्रणाली को हासिल करने के लिये आपसी सम्बन्ध को बढ़ाना।(5)

मिशन-

1. हमारे देश की विविधता में एकता का उत्सव मनाना और हमारे देश के लोगों के बीच पारंपरिक रूप से विद्यमान भावनात्मक बंधन को बनाए रखना और मजबूत करना।
2. राज्यों के बीच एक साल के योजनाबद्ध जुड़ाव के द्वारा सभी भारतीय राज्यों और केंद्र शासित प्रदेशों के बीच एक गहरे और संरचित जुड़ाव के माध्यम से राष्ट्रीय एकीकरण की भावना को बढ़ावा देना।
3. लोगों को भारत की विविधता को समझने एवं सराहने में सक्षम करने एवं आम एकत्व की भावना को बढ़ावा देना करने के लिए प्रत्येक राज्य की समृद्ध विरासत और संस्कृति, रीति रिवाज एवं परम्पराओं का प्रदर्शन करना
4. लंबे समय तक जुड़ाव स्थापित करना,
5. ऐसा वातावरण बनाना जो सर्वोत्तम प्रथाओं और अनुभवों को साझा करके राज्यों के बीच सीखने को बढ़ावा देता है। (6)

प्रस्तावित/संचालित गतिविधियां-

- खाद्य उत्सव/पाक विनिमय
- सांस्कृतिक आदान-प्रदान
- युवा महोत्सव
- ई. बी. एस. बी दिवस/ई. बी. एस. बी क्लब
- शैक्षिक आदान-प्रदान
- खेल के कार्यक्रम
- पर्यटन का आदान-प्रदान
- पुस्तकों का अनुवाद
- युग्मित राज्य के बारे में जानकारी का प्रसार
- ऑनलाइन संपर्क
- यात्रा और शिविर
- उत्सव और महोत्सव (7)



स्टैच्यू-निर्माण का मनोविज्ञान-

दुनिया भर में स्टैच्यू का निर्माण लोगों के दिलो दिमाग को प्रभावित करने के उद्देश्य से किया जाता है। स्टैच्यू स्थानीय पर्यटन को सकारात्मक रूप से प्रभावित करके देश के आर्थिक विकास में सहायक तो होते हैं, साथ ही वहां आने वाले पर्यटकों के मन मस्तिष्क को प्रभावित करके लोगों के मानसिक एवं बौद्धिक स्तर को बढ़ाने में भी सहायक होते हैं।

'द स्टैच्यू ऑफ लिबर्टी एनलाइटिंग द वर्ल्ड' फ्रांस के लोगों की ओर से संयुक्त राज्य अमेरिका को दोस्ती का उपहार था और इसे स्वतंत्रता और लोकतंत्र के सार्वभौमिक प्रतीक के रूप में मान्यता प्राप्त है। 'स्टैच्यू ऑफ लिबर्टी' को 28 अक्टूबर, 1886 को समर्पित किया गया था। इसे 1924 में राष्ट्रीय स्मारक के रूप में नामित किया गया था।(8)

‘सिंग्रिंग टेंपल बुद्धा’ भगवान बुद्ध की मूर्ति है। यह मूर्ति चीन के हेनान प्रांत में लूसान नामक जगह पर साल 2002 में स्थापित की गयी है। भगवान बुद्ध की इस मूर्ति की ऊंचाई 153 मीटर है।(9) ‘स्टैच्यू ऑफ यूनिटी’ के पश्चात् यह विश्व कि दूसरी सबसे बड़ी मूर्ति है।

‘क्राइस्ट द रिडीमर’ ब्राजील के प्रमुख बंदरगाह शहर रियो डी जनेरियो के ऊपर कोरकोवाडो टावर पर स्थित है। ‘क्राइस्ट द रिडीमर’ की प्रतिमा 1931 में बनकर तैयार हुई थी और यह 98 फीट (30 मीटर) लंबी है, इसकी क्षैतिज रूप से फैली हुई भुजाएं 92 फीट (28 मीटर) तक फैली हुई हैं। यह प्रतिमा रियो डी जनेरियो शहर और ब्राजील के पूरे देश दोनों के लिए प्रतीक बन गई है। यह मूर्ति दुनिया की सबसे बड़ी आर्ट डेको शैली की मूर्ति है।(10)

कोलंबिया विश्वविद्यालय के अंदर डॉ अम्बेडकर की एक मूर्ति है, जिसे ‘सिंबल ऑफ नॉलेज’ कहा जाता है। डॉ. भीमराव अम्बेडकर को ‘सिंबल ऑफ नॉलेज’ के रूप में जाना जाता है क्योंकि उन्होंने विभिन्न विषयों का अध्ययन किया और उनमें महारत हासिल की। विषय एक दूसरे से भिन्न थे और विविध विषयों को कवर करते थे। डॉ. अम्बेडकर डबल डॉक्टरेट रखने वाले एकमात्र व्यक्ति थे। इसके अलावा वे बैरिस्टर भी थे। ऐसे समय में जब उन्हें भारत में कक्षा से बाहर बैठाया जाता था और उनसे शिक्षा प्राप्त करने की अपेक्षा नहीं की जाती थी, उन्होंने अधिकांश प्रतिष्ठित डिग्रियां प्रतिष्ठित अंतरराष्ट्रीय विश्वविद्यालयों से अर्जित कीं। वे पुस्तकों के लिए एक घर बनाने वाले एकमात्र व्यक्ति थे। उनके निजी पुस्तकालय में पुस्तकों की संख्या कुछ पुस्तकालयों की तुलना में अधिक थी। अपने विशाल ज्ञान के कारण डॉ. अम्बेडकर को ‘सिंबल ऑफ नॉलेज’ के रूप में जाना जाता है।(11)

सरदार वल्लभ भाई पटेल -

31 अक्तूबर, 1875 को गुजरात के नडियाड में जन्मे सरदार वल्लभभाई पटेल ने भारत के स्वतंत्रता संघर्ष में पहला योगदान, 1918 में गुजरात के खेडा संघर्ष में दिया था। उन्होंने बोरसद सत्याग्रह के द्वारा बोरसद तालुका की जनता को ‘हदीया’ नामक एक दंडात्मक कर से मुक्त कराया। सरदार पटेल ने 1923 में, नागपुर में राष्ट्रीय झंडा आंदोलन का सफल नेतृत्व किया। बारदोली के किसानों के लगान में सरकार द्वारा की गई वृद्धि के खिलाफ 1928 में सत्याग्रह आंदोलन का नेतृत्व पटेल ने किया जहाँ इन्हें महिलाओं ने ‘सरदार’ की उपाधि दी। 1931 में इन्होंने भारतीय राष्ट्रीय कांग्रेस के कराची अधिवेशन की अध्यक्षता की और असहयोग आंदोलन, स्वराज आंदोलन, दांडी यात्रा तथा भारत छोड़ो आंदोलन में भी महत्वपूर्ण भूमिका निभाई। (12)

सरदार पटेल स्वतंत्र भारत के पहले उप-प्रधानमंत्री बने तथा साथ ही गृह, सूचना एवं प्रसारण मंत्री का प्रभार भी संभाला। आजादी प्राप्त होने के बाद, भारत की देशी रियासतों के राष्ट्रीय एकीकरण में सरदार पटेल की प्रमुख भूमिका रही और बिना युद्ध के इन्होंने लगभग 562 देशी रियासतों का देश में विलय कराया। विलय समझौते के लिये असहमत जम्मू कश्मीर, हैदराबाद एवं जूनागढ़ को भी सरदार पटेल ने अपनी कूटनीतिक समझदारी का परिचय देते हुए नवंबर 1947 तक देश में मिला लिया। भारत के एकीकरण में पटेल के योगदान को देखते हुए उन्हें ‘लौह पुरुष’ की उपाधि प्राप्त हुई। 1991 में मरणोपरांत इन्हें ‘भारत रत्न’ सम्मान दिया गया।(13)

सरदार पटेल और एक भारत-

‘विविधता में एकता’ की अनन्य समृद्ध संस्कृति भारत वर्ष को विरासत में मिली है। इस संस्कृति की जड़ें ‘वसुधैव कुटुम्बकम्’ के अटूट सिद्धांत से जुड़ी हुई हैं। जिसका अर्थ ही होता है कि संपूर्ण ब्रह्मांड एक परिवार है।(14)

1947 में आजादी के समय यह भारत वर्ष जो 562 से अधिक रियासतों में विभाजित था उसे स्वतंत्र भारत के पहले उप प्रधान मंत्री एवं भारत रत्न सरदार वल्लभभाई पटेल ने अपने दृढ़ निश्चय के साथ आज के एकीकृत भारत में तब्दील कर दिया। स्वतंत्रता संग्राम के दौरान एवं स्वतंत्रता के बाद भी जिस दूरदर्शिता और राजकीय कौशल के साथ सरदार पटेल हमारा नेतृत्व किया उसके लिये सभी भारतीय उनके प्रति सदैव ऋणी रहेंगे। उनका समग्र जीवन वर्तमान एवं भविष्य की पीढ़ियों के लिए प्रेरणा का एक अनंत स्रोत है। सरदार पटेल का ऋण स्मरण करते हुए विश्व की सबसे ऊँची प्रतिमा के रूप में उनके स्मारक का निर्माण कर उनकी 143वीं जन्मजयंती पर 'स्टैच्यू ऑफ यूनिटी' को राष्ट्र को समर्पित किया गया।(15)

राष्ट्रीय, आध्यात्मिक, ऐतिहासिक एवं शैक्षणिक मूल्यों का प्रतीक है, 'स्टैच्यू ऑफ यूनिटी'। आदिवासी क्षेत्र में निर्माण किया गया यह स्टैच्यू संपूर्ण क्षेत्र को विकास की दिशा में ले कर जाएगा। इस क्षेत्र को विश्व स्तर का ऐसा पर्यटन स्थल बनाने का लक्ष्य है जो शिक्षा, अनुसंधान, सांस्कृतिक, पर्यावरण संवर्धन और स्वास्थ्य संवर्धन का बुनियादी ढाँचा मुहैया कराता है। एक सच्चा नेता अपनी अनुपस्थिति में भी मानव जाति को प्रगतिपथ पर ही ले जाता है। 'स्टैच्यू ऑफ यूनिटी' इसी कथन से साक्षात्कार करवाता है।”(16)

एक भारत-श्रेष्ठ भारत पहल से सम्बंधित कुछ अन्य कार्य/योजनाएं-

- डेस्टिनेशन इंडिया
- ई-वीजा सुविधा और टूरिस्ट इन्फो लाइन
- अतुल्य भारत
- स्वदेश दर्शन योजना
- प्रसाद योजना
- जम्मू और कश्मीर का पुनर्गठन
- नागरिकता संशोधन अधिनियम
- राष्ट्रीय शिक्षा नीति

निष्कर्ष-

'एक भारत-श्रेष्ठ भारत' की अवधारणा भारत की विविधता में एकता को बढ़ावा देने तथा भारत की सभ्यता एवं संस्कृति को प्रदर्शित करने की कोशिश है। इस अवधारणा में 'स्टैच्यू ऑफ यूनिटी' को समाहित कर देने पर प्राचीनता के साथ नवीनता का पुट सम्मिलित हो जाता है। 15 अगस्त, 1947 को मिली देश की आजादी में विभिन्न राजे और रजवाड़ों का अलग अस्तित्व था, परन्तु सरदार वल्लभ भाई पटेल की कूटनीतिक दूरदर्शिता के कारण भारत की राष्ट्रीय एकता कायम हुई। बावजूद इसके जम्मू और कश्मीर की अलग धारा 370 इस एकता को हमेशा से एक दोहरे स्वरूप में प्रतिबिम्बित करती थी, जिसे 2019 में देश की भाजपा सरकार ने पूरी तरीके से समाप्त कर राष्ट्रीय एकता की अंतिम इबारत लिख दी।

आज पूरब से पश्चिम और उत्तर से दक्षिण तक पूरा भारत एक है। 'स्टैच्यू ऑफ यूनिटी' इस राष्ट्रीय एकता का प्रतीक है। एक शोधार्थी के रूप में मेरा मानना है कि यदि समान नागरिक संहिता जैसे मुद्दों को भी हल कर लिया जाए तो यह राष्ट्र के लिए अत्यन्त महत्त्वपूर्ण होगा। भारत सरकार निरन्तर 'एक भारत श्रेष्ठ भारत', 'सबका साथ-सबका विकास', 'नया भारत- आत्मनिर्भर भारत', 'जो देश का है, वह सबका है' जैसे दूरगामी विजन और मिशन पर काम कर रही है। आगे आने वाले समय में और अधिक मजबूत, समृद्ध और खुशहाल भारत बनेगा, ऐसी मुझे आशा है।

सन्दर्भ स्रोत-

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समुंद्री व चक्रवाती तूफान और आपदा प्रबंधन का परिदृश्य

डॉ. वेदप्रकाश

सहायक प्राध्यापक एवं विभागाध्यक्ष - भूगोल

किसान (पी० जी०) कॉलेज सिम्भावली जनपद हापुड उत्तर प्रदेश -245207

सारांश (Summary):-

सौरमंडल का सबसे अनोखा ग्रह पृथ्वी है पृथ्वी पर जीवन होने के कारण इसे अनोखा ग्रह कहा जाता है इस अनोखे ग्रह पर अनेक प्रकार की प्रकृति आपदाएँ घटित होती रहती है प्रकृति आपदा को परिभाषित करते हुए कहा जा रहा सकता है कि ग्रह एक ऐसी घटना है जिसमे एक हजार से लेकर दस लाख लोग तक प्रभावी हो और उनका जीवन खतरे में हो तो प्रकृति आपदा कहलाती है समुद्री तूफान, भूकम्प, सूखा, बाढ़, सुनामी, चक्रवात, भूस्खलन, हिमस्खलन टारनेडो एवं ज्वालामुखी यह सभी प्राकृतिक आपदाएँ हैं इस अनोखे ग्रह पर सबसे बड़ी प्राकृतिक घटना भूकम्प से घटित होती है और जब भूकम्प का केन्द्र महासागर में होता है तो समुद्री तूफान जन्म लेता है जिससे महासागरों में चक्रवात उत्पन्न हो जाता है और महासागरों में ऊंची-ऊंची लहरे उठना प्रारम्भ हो जाती है और स्थल मण्डल की ओर बड़ी तीव्र गति से बढ़ती है जिससे अनेक प्रकार के धन जान की बहुत हानि होती है जीवन अस्त व्यस्त हो जाता है छोटे-छोटे द्वीप सागर में समा जाते हैं समुद्र तटीय क्षेत्रों में बसे बड़े से बड़े शहर तबाह हो जाते हैं परिवहन, बिजली और संचार के साधन ठप हो जाते हैं छोटी से लेकर बड़ी वस्तुएँ तक सागर में विलीन हो जाती हैं, बाढ़ की स्थिति दूर-दूर तक खेती को नष्ट कर देती है, नदियाँ अपना मार्ग बदल देती हैं जिससे की मानवीय जीवन दयनीय हो जाता है प्राकृतिक आपदाएँ पर्यावरण की असहजता का मानवीय जीवन पर आघात है आपदा की इस प्रकृति को सामान्यतया रोकना कठिन है, लेकिन इससे होने वाली क्षति को अवश्य रोका जा सकता है इस के लिए दृढ़ इच्छा शक्ति बेहतर समन्वय और ठोस आधारभूत संरचना का होना जरूरी है प्राकृतिक आपदा या समुद्री तूफान से लोगों की सुरक्षा करना आपदा प्रबंधन कहलाता है, आपदा प्रबंधन के प्रभावी होने के लिए यह आवश्यक है कि आपदा के दौरान जो अत्यधिक जरूरी है वहाँ के लोगों के उत्साह को बरकरार रखने के साथ - साथ आवश्यक सहायता तेजी से उपलब्ध करना सरकार का महत्वपूर्ण कर्तव्य है।

भूमिका (introduction):-

सौरमंडल के ज्ञात ग्रहों में पृथ्वी इकलौता ऐसा ग्रह है जहाँ जीवन मुस्कुरा रहा है इस पृथ्वी ग्रह को अनोखा और निराला ग्रह भी कहा जाता है क्योंकि इस ग्रह पर अनेक प्रकार की प्रकृति घटनाएँ घटित होती रहती है कुछ प्रकृति घटनाओं से मनुष्य पर कोई प्रभाव नहीं पड़ता है लेकिन कुछ प्राकृतिक घटनाएँ ऐसी होती हैं जो मानव जीवन को अस्त - व्यस्त कर देती हैं जिन्हे हम प्रकृति आपदाओं के नाम से जानते हैं, प्रकृति आपदा को परिभाषित करते हुए कहा जा सकता है कि यह एक ऐसी घटना है जिसमे एक हजार से लेकर दस लाख लोग तक प्रभावी हो और उनका जीवन खतरे में हो तो प्रकृति आपदा कहलाती है जैसे समुद्री तूफान, भूकम्प, सूखा, बाढ़, सुनामी, चक्रवात, भूस्खलन, हिमस्खलन, टारनेडो एवं ज्वालामुखी यह सब प्राकृतिक आपदाएँ हैं इस सुन्दर और अनोखे ग्रह पर सबसे बड़ी प्रकृति घटना भूकम्प से घटित होती है और जब भूकम्प का केन्द्र महासागर में होता है तो समुद्री तूफान जन्म लेता है जिससे महासागरों में ऊंची-ऊंची लहरे उठना प्रारम्भ हो जाती है और स्थलमंडल की ओर बड़ी तीव्र गति से बढ़ती है जिससे अनेक प्रकार के धन जन की बहुत बड़ी हानि होती है समुद्री तूफान उन देशों को अधिक हानि पहुंचाता है, जो समुद्री किनारों पर या समुद्रों के बीच में हैं जैसे कनाडा, नॉर्वे, इंडोनेशिया, रूस, फिलीपींस, जापान, ऑस्ट्रेलिया, सयुक्त राज्य अमेरिका, अंटार्कटिका,

न्यूजीलैंड और भारत इन सभी देशों में समुद्री तूफान से मानव का जीवन अस्त व्यस्त हो जाता है समुद्री तूफानों से छोटे – छोटे द्वीप सागर में समा जाते हैं।

विश्व के 10 बड़े समुद्री तट रेखा वाले देश :-

क्रम संख्या	देशों के नाम	विवरण (तटरेखा)किमी० में
1	कनाडा	202080 (125567 मील)
2	नॉर्वे	58133 (36122 मील)
3	इंडोनेशिया	54720 (33939 मील)
4	रूस	37653 (23396 मील)
5	फिलीपींस	36284 (22549 मील)
6	जापान	29751 (18486 मील)
7	ऑस्ट्रेलिया	25760 (16007 मील)
8	सयुक्त राज्य अमेरिका	19924 (12380 मील)
9	अंटार्कटिका	17968 (11116 मील)
10	न्यूजीलैंड	15134 (9404 मील)

कैसे बनता है तूफान (How a storm is formed) :-

आप जानते हैं कि तूफान गर्मियों में आते हैं गर्मी शुरू हो जाते ही तूफान आने के कारण जब समुद्र में एक्वेटर के पास जब सूरज की गर्मी बढ़ती है तो समुद्र का पानी 27 डिग्री सेल्सियस से ज्यादा गर्म हो जाता है इससे भाप बनती है और गर्म हवा तेजी से ऊपर बैठती है ऊपर की नमी से मिलकर बादल बनाती है और जब गर्म हवा उठती है तो वहाँ कम वायुदाब का क्षेत्र बनता है गर्म हवा के तेजी से उठने पर नीचे की खली जगह ठडी हवा से तेजी भरने लगती है इस से हवा चक्कर काटने लगती है और नमी से भरे बादल भी घूमने लगते हैं इससे तूफान पैदा होता है गर्मी और नमी जितनी ज्यादा होती है तूफान उतना ही खतरनाक होता चला जाता है एक्वेटर के ऊपर तूफान बाएँ तरफ घूमते हैं और नीचे तूफान दाएँ तरफ घूमते हैं।

तूफानी चक्रवात (Hurricane Cyclone) :-

वायुमण्डल में पवन विक्षोभों को चक्रवात कहा जाता है परिवर्तशील हवाओं के भवर जिनके केन्द्र में निम्न वायुदाब और केन्द्र के बाहर उच्च वायुदाब होता है चक्रवात कहलाते हैं साधारणतया चक्रवात अण्डाकार होते हैं, यह वास्तव में निम्न वायुदाब के क्षेत्र होते हैं जिनके चारो ओर सकेन्द्रीय समवायुदाब रेखाये पाई जाती है इसमें न्यून वायुदाब ठीक केन्द्र के समीप ओर केन्द्र से बाहर की ओर सभी दिशाओं में वायुदाब क्रम बढ़ता जाता है अतः हवाएँ बाहर में अन्दर (केन्द्र) की ओर प्रवाहित होती हैं, फेरल के नियमानुसार हवाएँ उत्तरी गोलार्ध में अपनी बायीं ओर मुड़ जाती हैं अपितु उत्तरी गोलार्ध में घड़ी की सुई की उत्तरी दिशा में मुड़ जाती हैं किसी भी क्षेत्र में चक्रवात के आगमन के फलस्वरूप तापमान में अचानक परिवर्तन होता है एवं निरन्तर हल्की से भारी वर्षा होती है चक्रवात का विकास सामान्यतः पछुवा पवनों में ही होता है कम वायुमण्डल दाब के चारो ओर गर्म हवाओं की तेज आधी को समुद्री तूफान भी कहा जाता है जब समुद्री तूफान से अधिक जन- धन की हानि होती है तो प्रलपकारी तूफान भी कहा जाता है चक्रवातों को अलग - अलग क्षेत्रों में अलग - अलग नाम से पुकारा जाता है।

समुद्री तूफान के कारण (Due to sea storm) :-

मौसम विज्ञान विभाग के अनुसार गर्म मौसम एवं हवा में बहाव के कारण तूफान की उत्पत्ति होती है अक्सर देखा गया है कि बंगाल कि खाड़ी में अरब सागर कि तुलना में अधिक तूफान आते हैं जिसका मुख्य

कारण है हवा से टकराने वाली हवा मुड़ नहीं पाती वही पश्चिमी तटों पर आने वाले तूफान की दिशा अक्सर बदल जाती है पूर्वी तटों पर आने वाले तूफान ज्यादा शक्तिशाली होते हैं क्योंकि उन इलाको में तूफान का वर्गीकरण निम्न दबाव के क्षेत्र के क्षेत्रों में हवा की तीव्र गति के कारण उत्पन्न होता है।

समुंद्री तूफानों का नामकरण (nomenclature of storms) :-

वर्ष 1945 में चक्रवाती तूफानों के नामकरण की प्रक्रिया आरम्भ हुई तूफानों के नामकरण की प्रक्रिया सवाद, चेतावनी तथा लोगो की समझ के लिए आरम्भ की गई। विभिन्न तीव्रता तथा विस्तृत क्षेत्रों के कारण उन्हें पृथक - पृथक नामों से सम्बोधित करने का सिलसिला आरम्भ किया गया। तूफानों के नाम रखने की परम्परा का आरम्भ ऑस्ट्रेलिया से शुरू हुआ 19 वीं सदी में यहाँ पर भ्रष्ट राजनेताओं के नाम पर इनका नाम रखा जाने लगा। इस के बाद कुछ देशों में तूफानों का नामकरण आतंकवादियों के नाम पर भी रखा जाने लगा क्योंकि भ्रष्ट राजनेता और आतंकवादी देश व प्रजा को हानि पहुंचते हैं और तूफान भी देश व प्रजा को हानि पहुंचाता है इस प्रकार इनका नामकरण होता आ रहा है।

अटलांटिक क्षेत्र में चक्रवातों के नामकरण की शुरुआत 1953 में एक संधि के माध्यम से हुई थी वर्ल्ड मेटियोरोलॉजिकल ऑर्गेनाइजेशन (डब्लू० एम० ओ) को वर्ष 1979 में वैश्विक तूफानों के नामकरण की जिम्मेदारी दी गई, इससे पूर्व तूफानों का नामकरण क्षेत्रीय आधार पर होता था और हिन्द महासागर क्षेत्र के आठ देशों में भारत की पहल पर वर्ष 2004 से चक्रवातीय तूफानों का नाम देने की व्यवस्था शुरू की, इसके तहत सदस्य देशों द्वारा पहले से सुझाए गए नामों में से इन नामों का चयन किया जाता है विश्व मौसम संगठन तूफानों के नाम स्थानीय लोगो से प्राप्त कर उनका चयन करते हैं कैटरीना, लीसा, लेरी दिकान, बुलबुल, फालिन, हुदहुद, ताऊते, इरमा, वरदा, फैनी, गुल - आब, शाहीन, जवाद, असानी जैसे चक्रवात की भयानकता के बीच इनके अनोखे नाम हमेशा से ही लोगो के उत्सुकता का विषय रहे हैं वर्तमान समय में तूफानों के नाम किसी जीव- जंतु, पेड़-पौधो, पर्वत, नदी, नेता व अभी नेता, किसी देश की मुद्रा या विशाल भवन और पक्षियों के नाम पर रखे जाते हैं, भारतीय मौसम विभाग के अनुसार, क्षेत्र में हरिकेन और चक्रवात का नाम देने की परम्परा वर्ष 1953 से जारी है जो मियामी स्थित नेशनल हरिकेन सेन्टर की पहल पर शुरू हुई थी, इस की देख रेख जेनेवा स्थित विश्व मौसम संगठन करता है।

हिन्द महासागर क्षेत्र में यह व्यवस्था वर्ष 2004 में शुरू हुई, जब भारत की पहल पर आठ तटीय देशों ने इस बारे में समझौता किया, इन देशों में भारत, बांग्लादेश, पाकिस्तान, म्यांमार, मालदीव, श्रीलंका, ओमान और थाईलैंड शामिल हैं इन आठ देशों की ओर से अपनी पसन्द के अनुरूप नाम सुझाए गए हैं, अंग्रेजी वर्णमाला के अनुसार सदस्य देशों के नाम के अक्षर के अनुसार उनका क्रम तय किया गया था और उसी क्रम में इन की ओर से सुझाए गए नामों के अनुसार समुंद्री तूफान व चक्रवातों के नाम रखे जाते हैं, जैसे इस क्षेत्र में पिछले चक्रवात नानुक, ताऊते आया था जो म्यांमार की ओर से सुझाए गए नाम पर रख गया था, क्रमानुसार पिछली बार म्यांमार की बारी थी मार्च 2022 में असानी चक्रवात जिस का अर्थ विद्रोही होता है, का नाम क्रतर देश से आया है जबकि इस बार थाईलैंड की बारी है इनके नाम क्रम से परिवर्तित होते रहते हैं ताऊते का अर्थ छिपकली है जो म्यांमार से आया है, वरदा का अर्थ लाल गुलाब जो पाकिस्तान की ओर से आया है महसिन का अर्थ राजा का नाम जो श्रीलंका से आया है हुदहुद एक पक्षी का नाम जो ओमान से आया है तेज का अर्थ उतावला होता है जो भारत से आया है इस से पहले आए फेलिन चक्रवात का नाम थाईलैंड की ओर से सुझाया गया था इसी तरह अगले चक्रवात की सूचि से निलोफर रखा गया था। भारत की ओर से सुझाए गए नामों में मेघ, वायु, सागर, अग्नि आदि शामिल हैं वर्ष 2004 से पहले हिन्द महासागर क्षेत्र में चक्रवात का नाम नहीं रखा जाता था और

तारीख के अनुसार इन्हे सम्बोधित किया जाता था | हिन्द महासागर के आठ सदस्य देशो द्वारा अब तक 169 चक्रवात का नाम सूचीबद्ध किया गया है, क्योकि चक्रवातो के नाम एक समझौते के तहत रखे जाते है अंगेजी में वर्णमाला के अनुसार सदस्य देशो के नाम पहले अक्षर के अनुसार उनका क्रम तय किया जाता है, जैसे सबसे पहले बांग्लादेश फिर भारत, मालद्वीप और म्यांमार का नाम आता है सभी देश पहले चक्रवात के नाम WMO को भेज देते है तूफान की गति उसके प्रभाव को देखते हुए देशो द्वारा दिए गए नामो में से एक नाम उस तूफान का रख दिया जाता है, चक्रवात तूफान का नामकरण इसलिए किया जाता है, ताकि लोगो को इस के बारे में आसानी से चेतावनी दी जा सके इस से होने वाले खतरों के बारे में भी लोगो को जल्द से जल्द सतर्क किया जा सके लोग अगर तूफान से वाकिफ़ होंगे तो सरकार के साथ तालमेल बनाकर बेहतर प्रबंधन और तैयारियाँ कर सकेंगे , साथ ही लोग इन तूफानो के नाम याद रख सकें इसलिए तूफानो का नाम छोटा रखा जाता है , चक्रवात के जो नाम चर्चा में रहे , हुदहुद , लैला, निलोफर, वरदा , कैटरीना , नीलम , फेलीन, हेसन, अम्फान और तितली तूफान के नाम काफी चर्चा में रहे 2004 में आए अम्फान तूफान का नाम थाइलैंड ने प्रस्तावित किया था और जो 2004 में तैयार भविष्य के तूफानो के नामो की सूची में आखिरी नाम था |

भविष्य में ये हो सकते है तूफानों के नाम (In future these may be the names of storms) :-

उत्तरी हिंद महासागर और अरब सागर में भविष्य में उठने वाले तूफान शाहीन, गुलाब, तेज, अग्नि और आग जैसे नामो से जाने जाएगे क्योकि 13 देशो द्वारा भविष्य के लिए सुझाए गए 169 नामो में ये शामिल है , भारत ने भविष्य में आने वाले तूफानों के लिए ये नाम प्रस्तावित किए है गति, तेज और मुरासु(तमिल वाद्य यंत्र) आग, नीर, प्रभजन, घ्रणि, अम्बुध, जलधि और वेग | इसके अलावा बांग्लादेश, ईरान, मालद्वीप, म्यांमार, थाइलैंड, सयुक्त अरब अमीरात और यमन ने 13-13 नाम सुझाए है, बांग्लादेश द्वारा प्रस्तावित अर्नब, कतर, द्वारा प्रस्तावित शाहीन, पाकिस्तान द्वारा प्रस्तावित लुलु, म्यांमार द्वारा पिकू कतर द्वारा प्रस्तावित बहार नाम दिया है।

13 देशो ने दिए 169 नाम (13 countries gave 169 names):-

चक्रवात का नाम विश्व मौसम विभाग /सयुक्त राष्ट्र आर्थिक और सामाजिक आयोग एशिया व प्रशांत (डब्ल्यू एम ओ/ई एससीएपी) पैनल ऑन ट्रॉपिकल साइक्लोन (पीटीसी) द्वारा किया जाता है इस पैनल में 13 देश है, इनमे भारत, बांग्लादेश , मालदीव, म्यांमार, पाकिस्तान, मालदीव, ओमान, श्रीलंका, थाइलैंड, ईरान, कतर, सऊदी अरब, एएई और यमन शामिल है, ये तूफानो के नामकरण का सुझाव देते है, पिछले साल हर एक देश ने 13 नाम सुझाए थे, इसके चलते चक्रवातों के 169 नामों की फेहरिस्त बनी थी, इस से पहले 2004 में इस समूह में शामिल आठ देशो ने 64 नामों की सूची को अंतिम रूप दिया था, तब हर एक देश से आठ नाम आए थे, पिछले साल मई में भारत में आया चक्रवात अम्फान उस सूची में अंतिम नाम था वही इस सूची में पहला नाम निसर्ग का है, जो अरब सागर से उठा था इस का नाम बांग्लादेश ने रखा था नामकरण के लिए हर बार अलग देश का नबर आता है |

अमेरिका में तूफानो का नामकरण (Nomenclature of storms in America) :-

हर देश में नाम रखने की प्रक्रिया अलग-अलग है, अमेरिका की बात करे तो अमेरिका में चक्रवातों को महिलाओ का नाम देना शुरू कर दिया था, हालांकि 1978 से आधे चक्रवातों के नाम पुरुषो के नाम पर रखे

जाने लगे है अमेरिका चक्रवातों के लिर हर साल २१ नामों की लिस्ट तैयार करता है लेकिन Q,U,X,Y,Z से नाम नहीं रखा जाता है इस के अलावा अल्फा , बीटा, गामा का इस्तेमाल भी नाम के लिए किया जाता है।

तूफानो का नाम व अर्थ की सूची

नाम	अर्थ	किस देश ने रखा
ताऊते	छिपकली	म्यांमार
इरमा	हेरी पॉटर की किरदार	अमेरिका
फेलिप	संत फेलिप	बरमूडा
वरदा	लाल गुलाब	पाकिस्तान
महसिन	राजा का नाम	श्रीलंका
हुदहुद	पक्षी का नाम	ओमान
फेनी	नाग का नाम	बांग्लादेश
गुल- आब	फूल का नाम	पाकिस्तान
शाहीन	गरुड़	कतर
जवाद	लड़ाई का घोडा	सऊदी अरब
असानी	विद्रोही	श्रीलंका
सी - टैग	जगह का नाम	थाईलैंड
मेन- डोस	सरनेम	यूएइ
मोचा	शहर का नाम	यमन
बियोरजोय	आपदा	बांग्लादेश
तेज	उतावला	भारत
असानी	क्रोध या गुस्सा	श्रीलंका

हुदहुद का नामकरण (Nomenclature of Hudhud) :-

2014 में आए उष्ण कटिबंधीय चक्रवात हुदहुद का नाम एक पक्षी के नाम पर रखा गया था , हुदहुद पक्षी बहुत रंग- बिरंगा और खूबसूरत होता है, यह पेड़ों के तने में अपनी चोंच से खोद - खोद कर खोह बनाकर रहता है, हुदहुद इजरायल का राष्ट्रीय पक्षी है, हलाकि हुदहुद अरबी भाषा का शब्द है, इस तूफान का नाम हुदहुद ओमान की ओर से आया था। **ताऊते**

ताऊते का मतलब गेको होता है, जो बर्मी भाषा में एक हिंसक छिपकली की प्रजाति है यह छिपकली जब चलती है, तो बहुत शोर करती है इस छिपकली के नाम पर ही इस तूफान का नाम रखा गया है यह भी नाम म्यांमार की ओर से आया है।

नामकरण का महत्व (importance of naming):-

तूफानो के नामकरण पर सवाल उठता है कि यह क्यों जरूरी है इस के पीछे कुछ वजह महत्वपूर्ण है जैसे इससे मीडिया को जानकारी देने में आसानी होती है और लोग तूफानो का नाम होने के कारण चेतावनी को ज्यादा गम्भीरता से लेते है, इस से होने वाले नुकसान से निपटने में भी इससे मदद मिलती है बता दे कि तूफानो के नाम के लिए जनता भी अपने सुझाव भेज सकती है जिसमे कुछ शर्तें दी गई है जैसे कि चक्रवात का नाम छोटा और सरल हो और जब इनका परिचय किया जाए तो लोग इसे आसानी से समझ सके इसके अलावा एक सुझाव यह भी दिया जाता है कि सांस्कृतिक रूप से नाम संवेदनशील ना हो और ना ही उनका अर्थ भड़काऊ हो। तूफानो के सामान्य नामो को अधिकतर स्वीकार किया जाता है।

तूफानों के वर्गीकरण की सूची

चक्रवात का नाम	वर्ष	चक्रवात के बारे में
ताऊते	2021	ताऊते चक्रवात ने दक्षिण भारत, गुजरात, गोवा और महाराष्ट्र में भारी वर्षा और शक्तिशाली तेज हवाओं का कारण बना, साथ ही गुजरात में सौराष्ट्र प्रायद्वीप के दक्षिणी तट पर लेडफॉल बनाया
अम्फान	2020	तूफान ने 3 जून को महाराष्ट्र के तटीय शहर अलीबाग के पास लेडफॉल बनाया, वर्ष 2009 में चक्रवात प्यान के बाद महाराष्ट्र में लेडफॉल बनाने वाला यह पहला चक्रवात था
फानी	2019	फानी एक भीषण चक्रवाती तूफान था जो भारतीय राज्य ओडिशा से टकराया था बड़े पैमाने पर विनाश के कारण 40 से अधिक लोग मरे गये
तितली	2018	चक्रवात तितली ने पश्चिमी उत्तर प्रदेश और भारतीय राजधानी नई दिल्ली में भारी वर्षा की उत्तर प्रदेश के मेठ में सबसे ज्यादा बारिश हुई, यमुना नदी आपात कालीन स्तर को पार कर गई, 226 मिमी . बारिश हुई
ओखी	2017	चक्रवात ओखी शक्तिशाली और 2017 उत्तरी हिन्द महासागर चक्रवात के सबसे सक्रिय उष्ण कटिबंधीय चक्रवातों में एक था अरब सागर से ओखी ने केल, तमिलनाडु और गुजरात के तटीय क्षेत्रों के साथ भारत की मुख्य भूमि पर प्रहार किया और 245 लोगो की जान गयी
वरदाही	2016	वर्दा ने अंडमान और निकोबार द्वीप समूह में भारी वर्षा की फिर भारत के पूर्वी तट को पार कर चेन्नई , कांचीपुरम और विशाखापत्तनम को प्रभावित किया 38 लोगों की जान गई
कोमेन	2015	बांग्लादेश से टकराने के बाद चक्रवाती तूफान कोमेन ने भारत में प्रवेश किया पूर्वी भारत में सबसे गंभीर बाढ़ पैदा की जिस में 285 लोग मारे गये
हुदहुद	2014	चक्रवात हुदहुद एक भरी उष्ण कटिबंधीय चक्रवात था जिस ने आंध्र प्रदेश , विशाखापत्तनम में तबाही मचाई, इस में १२४ लोग मरे गए
फेलिन	2013	चक्रवात तूफान फेलिन सबसे शक्तिशाली उष्ण कटिबंधीय चक्रवात था इस प्रणाली को पहली बार 4 अक्टूबर 2013 को थाईलैंड की खाड़ी के भीतर कंबोडिया में नाम पेन्ह के पश्चिम में एक उष्ण कटिबंधीय अवसाद के रूप में देखा गया था
नीलम	2012	इस चक्रवात में 75 मौते दर्ज की गयी, महाबलीपुरम के पास 100 मीटर (330 फीट) अंतर्देशीय तक पहुंच गया था
थाइन	2011	चक्रवाती तूफान थाइन ने 30 दिसम्बर को तमिलनाडु में कुदुअलोर के ऊपर लैडफोळ बनाया जो हिन्द महासागर में कही भी लैडफोळ बनाने के लिए एक चक्रवात की सबसे उन्नत तिथि को इंगित करता है
लैला	2010	तूफान लैला ने भारी नुकसान किया और 65 लोग मरे गए
फ्यान	2009	फ्यान ने तमिलनाडु , महाराष्ट्र और गुजरात में प्रयाप्त वर्षा की इस का प्रभाव श्री लंका में काफी रहा
ओडिशा	1999	ओडिशा चक्रवात उत्तर हिन्द महासागर में सबसे ऊर्जावान उष्ण कटिबंधीय चक्रवात था इस के विनाश से 15000 मौते हुई

समुंद्री चक्रवात की आँख (eye of the cyclone) :-

किसी भी चक्रवात के मध्य भाग यानी केंद्र को आँख या आई कहते हैं किसी भी चक्रवाती तूफान की आँख की चौड़ाई यानी व्यास औसत तौर पर 30 से 65 किलोमीटर तक होता है आँख के चारो तरफ घूमते हुए बादल होते हैं, आँख के ठीक नीचे आँख की दीवार होती है यह एक प्रकार का तेजी से घूमते हुए बदलो का छल्ला होता है ये तभी बनता है जब चक्रवाती तूफान का स्टार अत्यंत गंभीर होता है चक्रवात की आँख बीचो बीचखली होती है ये खालीपन 30 से लेकर 65 किमी० व्यास का हो सकता है लेकिन इसके चारो तरफ तेजी से घूमते बादल हल्की हवा, कड़कती बिजलिया और तेज बारिश होती है हल्के स्तर के चक्रवात में आँख बनती है लेकिन वह गंभीर चक्रवात की आँख की तरह दीवार नहीं बन पाती उसके ऊपर एक बादलो का कवर चढ़ा रहता है किसी भी तूफान की आँख उस साइक्लोन का जियोमेट्रिक सेंटर होता है ये दो प्रकार के होते हैं क्लियर आई यानी स्पष्ट आँख जिसमे एक गहर गोला साफ तौर पर चक्रवात के बीच दिखता है, दूसरा फिल्ड आई यानी इसमें आँख तो बनी है लेकिन उसके अन्दर हल्के या माध्यम स्तर के तूफानी बादल फसे रहते हैं, इसलिए जहाँ भी चक्रवाती तूफान की आँख होती है वहाँ पर तेज हवाए तो चल सकती है लेकिन बारिश कम या न के बराबर होती है।

चक्रवाती आँख के प्रकार

छोटी या मिनिस्कुल आँखे (Small or miniscule eyes)

छोटी आँखो का वेश 19 किलोमीटर व्यास का होता है इस के अन्दर बनने वाली आँख की दीवार बनती बिगड़ती रहती है इसके बावजूद मुख्य आँख के चारो तरफ कई दीवार बनती है ये कुछ किलोमीटर से लेकर सैकड़ों किलोमीटर दूर तक फेल सकती है इसे कोसेंट्रिक आईबॉल यानी आँख के अन्दर आँख कहते हैं आँख कई अन्दर आँख का निर्माण इसमें हवाओ की गति 45 से 100 किलोमीटर प्रति घंटा होती है मध्यम आँखे कई तूफान बहुत बड़े नहीं लेकिन खतरनाक होते हैं ये निर्भर करता है वायुमंडल के दबाव महाद्वीपीय हवाओ की रफ्तार, गर्मी, उमस और घूमते हुए बदलो की गति पर इनकी आँख आमतौर पर 65 से 80 किलोमीटर व्यास की होती है ऐसे तूफान आमतौर पर कटिबन्धीय देशो में आते हैं इन में हवाओ की गति 80 से 115 किलोमीटर प्रति घंटे की होती है लेकिन तीव्रता बढ़ने पर हवाओ की गति ज्यादा हो जाती है।

बड़ी आँख (Big eyes) :-

दुनिया के इतिहास में अब तक जो सबसे बड़ा चक्रवात आया था वो था टाइफून कार्मेन (Typhoon Carmen) इसकी आँख 370 किलोमीटर व्यास की थी जबकि सबसे छोटा साइक्लोन हरिकेन विल्मा था इस की आँख मात्र 3.7 किलोमीटर व्यास की थी इस में हवा की गति 115 किलोमीटर से लेकर 250 किलोमीटर प्रतिघंटा की हो सकती है, आमतौर पर किसी भी चक्रवात की आँख की तस्वीर सेटेलाइट या अंतराष्ट्रीय स्पेस स्टेशन से ली जा सकती है क्योकि कोई तकनीकी या इंसान चक्रवाती तूफान के बीच जाने की हिम्मत नहीं करता, इस के लिए आमतौर पर हरिकेन हटर्स (Harricane Hunters) नाम का विमान चक्रवात के ऊपर भेजा जाता है, ताकि वह वहाँ से उसकी आँख और तीव्रता का पता लगा सके किसी बह चक्रवाती तूफान की आँख से ही उसकी तीव्रता या भय वहता का पता चलता है जितनी बड़ी और गहरी आँख होती है उतना ज्यादा भयावह चक्रवाती तूफान होता है लेकिन आप को यह जानकर हैरानी होगी कि चक्रवाती तूफान का सबसे शांत और नुकसान न पहुंचाने वाला इलाका उसकी आँख ही होती है क्योकि वहाँ न तो बारिश होती है और न ही बिजली कड़कने या गिरने का डर न ही तेज घूमते बादल होते हैं कभी-कभी आँख के बीच तेज हवा या उमस दोनों कि स्थिति बन जाती है क्योकि आसपास तेजी से घूमते बादल हवा और नमि को पहले खींचते हैं फिर तेजी से वापस करते हैं चक्रवाती तूफान की आँख का तापमान बहुत काम होता है की आँख का तापमान माइनस 2 डिग्री सेल्सियस है जबकि सबसे बड़ी आँखे ध्रुवीय इलाको में आने वाले चक्रवाती तूफानो की होती है इन तूफानों

को पोलर लॉज कहते हैं इन में हवा की गति 50 किलोमीटर प्रति घंटा की होती है अगर चक्रवर्त तूफानी समुन्द्र के ऊपर बनता है तो सबसे ज्यादा खतरा सागरों में ही होता है क्योंकि उसमे तेज गति से लहरे उठती है इनकी उचाई 6 फीट से 25 फीट तक हो सकती है Cyclone Touktae तूफान ताउते को अत्यंत गंभीर चक्रवाती तूफान की श्रेणी में रखा गया है फ़िलहाल इस चक्रवात की आँख मुंबई से 155 किलोमीटर पश्चिम- उत्तरा पश्चिम की तरफ थी यह मुंबई और महाराष्ट्र में तेज हवाएँ चलते हुए गुजरात की तरफ चला गया था

तूफानों की केटेगरी (category of storms) :-

समस्त क्षेत्रों में चलने वाले तूफान अलग-अलग केटेगरी के होते हैं जब हवा 63 किलोमीटर प्रति घंटा की रफ्तार से चक्कर काटती है तो उसे ट्रॉपिकल स्टॉर्म कहा जाता है इसके अलावा अगर हवा की गति 119 किमी प्रति घंटे से ज्यादा होती है तो उसे ट्रॉपिकल साइक्लोन कहते हैं वही हवा की रफ्तार बढ़ने के साथ - साथ ही साइक्लोन की केटेगरी 1 से 5 स्केल तक होती है |

क्र.सं.	श्रेणी	हवा की गति
1	चक्रवाती तूफान	34 से 47 नॉट (62 से 87 Km/h)
2	गंभीर चक्रवाती तूफान	48 से 63 नॉट (88 से 117) Km/h
3	बहुत गंभीर चक्रवाती तूफान	64 से 89 नॉट (118 से 165 Km/h)
4	अत्यंत गंभीर चक्रवाती तूफान	119 से 157 नॉट (216 से 281 Km/h)
5	सुपर साइक्लोन	158 नॉट (288 Km/h)

समुंद्री तूफान की उत्पत्ति के समय इन का आकर काम होता रहता है लेकिन समुंद्री क्षेत्र में निर्वाध आगे बढ़ते रहने के साथ - साथ इनका आकर व वायु की गति बढ़ती जाती है।

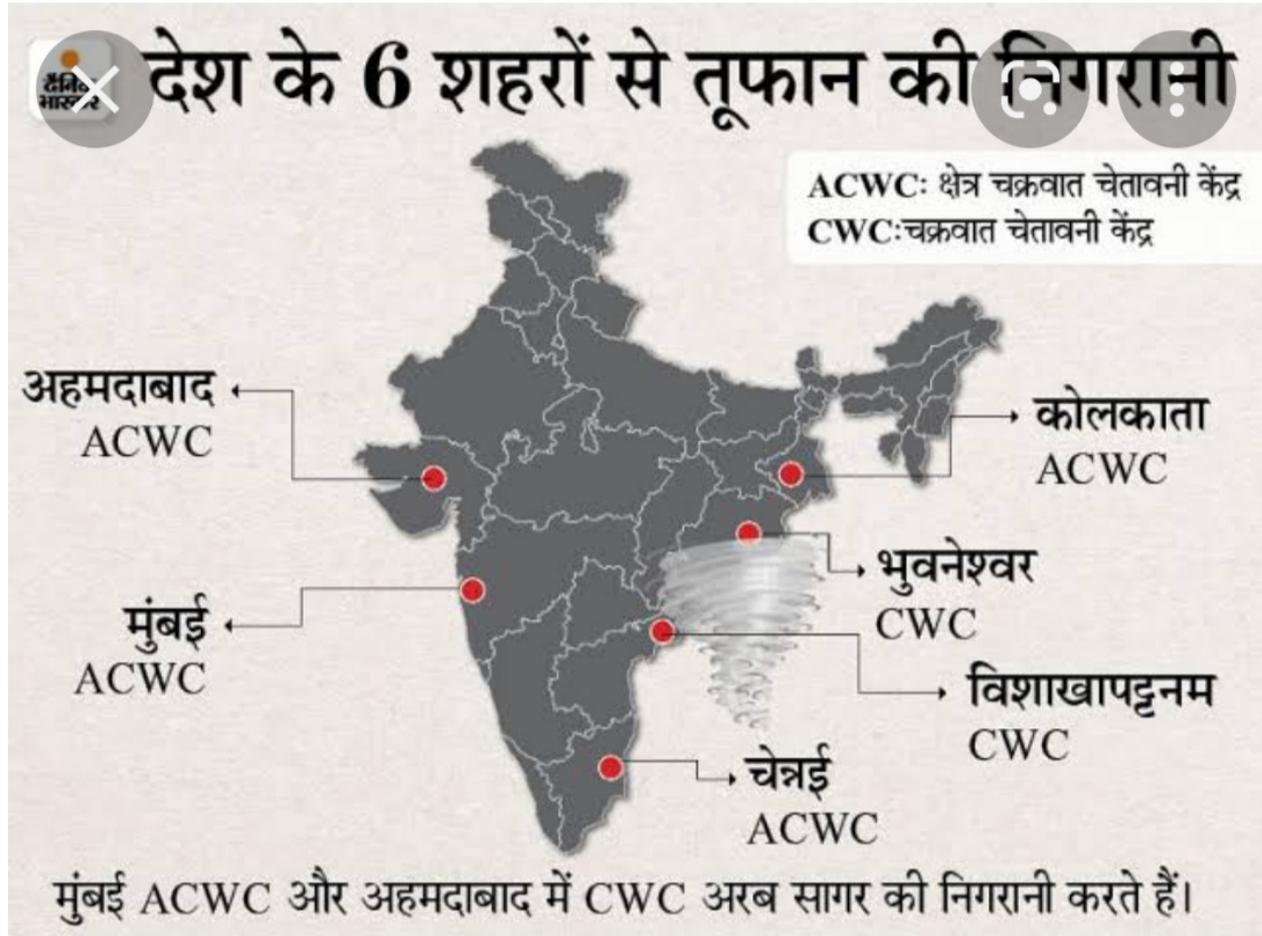
विश्व में आये तूफानों की सूची

महीना	तूफान	देश
दिसंबर 2020	बुरेवी तूफान	तमिलनाडु
नवंबर 2020	गोनी तूफान	फिलिपिंस
नवंबर 2020	निर्वाध तूफान	स्लीपिंग
नवंबर 2020	लोटा तूफान	निकारागुआ और होंडुरास (मध्य अमेरिका)
नवंबर 2020	एटा तूफान	निकारागुआ और होंडुरास (मध्य अमेरिका)
नवंबर 2020	निवार तूफान	तमिलनाडु और पांडुचेरी
अगस्त 2020	लॉरा तूफान	अमेरिका
जून 2020	क्रिस्टोबल तूफान	मेस्किको
जून 2020	निसर्ग चक्रवात	महाराष्ट्र और गुजरात
मई 2020	अम्फान चक्रवात	पश्चिम बंगाल तथा उड़ीसा
जनवरी 2020	डायने चक्रवात	मेडागास्कर

भारतीय तूफानी निगरानी के शहर (Indian storm trooper city)

देश के 6 शहरों से तूफानों की निगरानी की जाती है ACWC क्षेत्र चक्रवाती चेतावनी केन्द्र और CWC चक्रवात चेतावनी केन्द्र है क्षेत्र चक्रवात चेतावनी केन्द्र कोलकता, चेन्नई, अहमदाबाद और मुंबई है शेष तीन

शहर भुवनेश्वर, विशाखापटनम, और अहमदाबाद में CWC चक्रवात चेतावनी केन्द्र है यह सभी छः केन्द्र तूफान आने से पहले ही चेतावनी देते हैं जहाँ पर तूफान आने वाला होता है ओस क्षेत्र की निगरानी कर सुरक्षा प्रदान कराते हैं वह के लोगो को उस स्थान से दूसरे स्थान पर भेज देते हैं जहाँ लोग सुरक्षित रह सके।



चक्रवातों द्वारा होने वाला विनाश (destruction caused by cyclones) :-

चक्रवात काफी विनाशकारी होते हैं तेज पवन समुद्र के जल को तटों की ओर धकेलती हैं भले ही चक्रवात तट से सैकड़ों किलोमीटर दूर हो ये चक्रवात के आगमन के पूर्व संकेत होते हैं पवन द्वारा उत्पन्न होने वाली जल की लहरे इतनी शक्तिशाली होती हैं कि उनके आघात से कोई भी व्यक्ति बच नहीं सकता चक्रवात के क्षेत्र में निम्न दाब के कारण उसके केन्द्र में जल सतह उच्च स्तर तक उठ जाता है उठता जल 3-12 मीटर कि उचाई तक उठ सकता है ऐसा लगता है मानो जल की दीवार तट कि ओर बढ़ती आ रही है इसके परिणामस्वरूप समुद्र का पानी काम उचाई पर स्थित तटीय क्षेत्रों में प्रवेश कर जाता है जिससे जीवन और सम्पत्ति की गंभीर हानि होती है यह पानी की उर्वरता को भी कम कर देता है चक्रवात के तट को पर करते समय होने वाली लगातार वर्षा बाढ़ कि स्थिति को और भयावह बना देती है चक्रवात अपने साथ अति उच्च वेग की पवन लाते हैं जो घरों, दूरभाष और अन्य संचार प्रणालियों, वृक्षों अदि को क्षति पहुंचा देते हैं जिससे जीवन और सपति की अत्यधिक हानि होती है

सुरक्षा के उपाय (security measures):-

चक्रवातों के दुष्प्रभावों को कम करने के लिए चक्रवात पूर्वानुमान और चेतावनी सेवा सरकारी संस्थाओं, समुद्रतटों, मछुआरों, जलपोतों और आम जनता को शीघ्रातिशीघ्र चेतावनी देने के लिए तीव्रगामी संचार व्यवस्था होनी चाहिए और चक्रवाती सभावित क्षेत्रों में चक्रवात आश्रयों का निर्माण और लोगो को तेजी

से सुरक्षित स्थानों पर पहुंचने के लिए प्रशासनिक व्यवस्था अच्छी होनी चाहिए हमें अनिवार्य रूप से घरेलू साज-सामान, पालतू पशुओं और वाहनों अदि को सुरक्षित स्थानों पर पहुंचने के लिए आवश्यक प्रबंध कर लेने चाहिए, जलमग्न सड़को पर वहां चलाने से बचना चाहिए क्योंकि बाद से सड़के क्षतिग्रस्त हो जाती है और सभी आपातकालीन सेवाओं जैसे पुलिस, अग्निशमनदल और चिकित्सा केन्द्रों के टेलीफोन नंबर की सूची अपने साथ रखना चाहिए अगर आप चक्रवाती क्षेत्र में रहते हैं तो संप्रदूषित जल का उपयोग न करे गीले स्विच और खम्भे से टूट कर गिर गए बिजली के तारों को न छुए घर से बहार कम जाए अपने पड़ोसियों और मित्रों का सहयोग करे इस प्रकार आप अपने जीवन को सुरक्षित कर सकते हैं।

आपदा प्रबन्धन (disaster management) :-

चक्रवात तूफान, भूकंप, बाढ़, अति वृष्टि, बबडर आदि इन सभी से निपटने के लिए विकसित राष्ट्रों में राष्ट्रीय नीति बनाई जाती है और उसे बड़ी गंभीरता से क्रियान्वित किया जाता है जिसे आपदा प्रबन्धन कहते हैं, दूसरे शब्दों में कहे तो आकस्मिक विपदाओं से निपटने के लिए संसाधनों का योजनाबद्ध उपयोग और इन विपदाओं से होने वाली हानि को न्यूनतम रखने की कुंजी ही आपदा प्रबन्धन है विकसित देशों में आपदा प्रबन्धन महत्वपूर्ण प्राथमिकता है और उसे पूरे वैज्ञानिक तरीके से उन्नत किया जा रहा है किसी राष्ट्र को केवल उसकी आर्थिक समृद्धि या विकासशील राष्ट्र होने के लिए जो मानक जरूरी है उनमें एक आपदा प्रबन्धन भी है

अंतर्राष्ट्रीय परिदृश्य (international scenario) :-

दुनिया के हर देश में आपदाएं आती रहती है इन आपदाओं से बड़ी मात्रा में धन- जान की हानि होती है लेकिन आज स्थिति कुछ विपरीत है अमेरिका में अक्सर भयंकर तूफान आते रहते हैं लेकिन वहाँ तूफान की आशंका वाले इलाकों से लोगों को किस तरह सुरक्षित निकला जाए इसके लिए हर साल बड़े पैमाने पर ट्रेनिंग दी जाती है वहां इस का सकारात्मक प्रभाव भी देखा गया है तूफान अब भी आते हैं लेकिन हाल के वर्षों में जान का नुकसान बहुत कम होता है आपदा प्रबन्धन के क्षेत्र में दुनिया के सभी देशों से जापान बहुत आगे है जापान पृथ्वी के ऐसे क्षेत्र में स्थित है जहाँ भूकंप, ज्वालामुखी, सुनामी, जैसी विपदाएं आए दिन आती रहती है जापान में प्रत्येक वर्ष एक सितम्बर को आपदा रोकथाम दिवस मनाया जाता है ताकि आम जनता में आपदाओं से निपटने के लिए चेतना और ज्ञान का प्रसार किया जा सके।

निष्कर्ष (conclusion) :-

चक्रवाती तूफान आने पर नुकसान की मात्रा बहुत अधिक होती है लेकिन अगर पहले से सतर्क रहा जाए तो नुकसान की मात्रा कम की जा सकती है चक्रवाती तूफान के आगाही पर समुंद्री तटों पर रहने वाले लोगों को सबसे पहले विस्थापित कर देना चाहिए , नदियों , जलाशयों के पास रहने वाले लोगों को किन्हीं सुरक्षित जगहों पर विस्थापित कर देना चाहिए क्योंकि चक्रवाती तूफान नदियों के संपर्क में आने पर भयानक हो जाता है, प्रशासन को पहले से ही सक्रिय होना चाहिए तथा बिजली विभाग, जल विभाग तथा आपातकालीन खाद्य आपूर्ति विभाग को तूफान से पहले तैयार रहना चाहिए चक्रवाती तूफान आने से पहले जरूरी दवाइयां अनाज तथा पानी को सुरक्षित कर लेना चाहिए तूफान के समय कहीं भी आने जाने से बचना चाहिए तथा टेलीविजन रेडियो या इंटरनेट के माध्यम से रक्षा स्रोत से संपर्क बनाये रखना चाहिए चक्रवाती तूफान के समय पशुओं को बाधकर नहीं रखना चाहिए तथा जितना हो सके उन्हें सुरक्षित स्थान पर पहले ही पहुंचा देना चाहिए अपने जरूरी कागजात को प्लास्टिक की थैली में पैक कर सुरक्षित रख लेना चाहिए प्राकृतिक आपदाओं से सुरक्षा के तौर पर ही बचा जा सकता है हमें इस के लिए पहले से ही तैयार रहना होता है तब ही हम अपने जीवन को सुरक्षित कर सकते हैं।

संदर्भ सूची (Context list)

- आपदा प्रबंधन सविन्द्र सिंह, प्रवालिका पब्लिकेशन्स इलहाबाद

- भौतिक भूगोल, डॉ० चतुर्भुज मेमोरियल, डॉ० सुरेश चन्द्र बंसल, डॉ० पंकज कुमार चौहान
- कार्टर डब्ल्यू निक 1991 डिजास्टर मैनेजमेंट ए डिजास्टर हेडबुक एशियन डेव्लपमेंट बैंक, मनीला
- प्रकाश इन्दु 1994 डिजास्टर मैनेजमेंट राष्ट्रीय प्रहारी प्रकाशन नई दिल्ली
- भूगोल भारत एवं विश्व, मीनाक्षी प्रकाशन मेरठ
- प्रतियोगिता दर्पण वार्षिक 2021
- समसामयिक महासागर दिसम्बर 2013, 2018, 2021
- विद्या मेघ समसामयिक दिसम्बर 2014, 2019, 2021
- दृष्टि 2020 समसामयिक घटा चक्र
- www.aajtak.com
- www.parayavaran.com
- www.apdaprabandhan.com



शेतीबरोबर पुरक व्यवसाय केला तर शेतीही फायदयाची आहे

प्रा. संजय फुलकर

सहयोगी प्राध्यापक

कुंभलकर समाजकार्य सांध्यकालीन

महाविद्यालय राजीव नगर नागपूर

भारत हा कृषी प्रधान देश आहे. आपल्या देशामध्ये बहुतांश लोक शेती व्यवसाय करतात. शेती हा देशातील बहुतांशी लोकांचा मुख्य व्यवसाय आहे परंतु याबरोबरच काही लोक शेतीला पुरक व्यवसाय म्हणून जोड व्यवसाय करतात. या जोडव्यवसायातूनच शेतकऱ्यांना आर्थिक लाभ मिळू शकतो. भारतीय पातळीवर राष्ट्रीय उत्पन्नात सन १९५० साली कृषी क्षेत्राचा वाटा ५० टक्के होता परंतु नंतर च्या काळात आद्यौगिक व सेवाक्षेत्राच्या प्रगतीमुळे कृषी क्षेत्राचा वाटा आता केवळ २२ टक्के पर्यंत घटला आहे. शेती व्यवसायातून अधिक उत्पन्न मिळविण्यासाठी आणि नैसर्गिक संकटांना सर्मथपणे समोरे जाण्यासाठी शेतीला पुरक व्यवसायाची जोड देणे आवश्यक आहे. (चव्हाण, शैलेश म.टा. २८ जानेवारी २०१६)

शेती व्यवसायातून अधिक उत्पन्न मिळविण्यासाठी आणि नैसर्गिक संकटांना सर्मथपणे समोरे जाण्यासाठी शेतीला पुरक व्यवसायाची जोड देणे आवश्यक आहे. शेती बरोबर एक उत्पन्नाचे साधन असते ज्या भागात शेतीला दुग्ध व्यवसायासारख्या धंद्याची जोड मिळाली आहे त्याभागात शेतकऱ्यांच्या आत्महत्या कमी झाल्यात उत्पन्नाचे दुसरे साधन असल्याचा असा फायदा इतर शेतकऱ्यांनाही होवू शकतो यासाठी विज व पाण्याची समस्या दूर करण्यासाठी कार्य करणे आवश्यक आहे.

शेती मध्ये असे अनेक व्यवसाय आहे जे ग्रामीण भागात टिकाव धरू शकतात आणि त्यातून आपल्याला आर्थिक लाभ घेता येईल सोबत लघु कृषक जी पारंपारिक शेत करता त्यालाच आधुनिक तंत्रज्ञान, उच्चप्रतिचे बियाणे शेतीचे विविध प्रकार, कोरडवाहू फळ पिके, पिकांची फेरपालट, भाजीपाला फळ पिके, कोरडवाहू जमिनीसाठी तेल बिया पिके, कडधान्य, हरितगृह तंत्रज्ञान व फुलशेती अशा आधुनिक शेतीचा अवलंब केल्यास शेतीही नकिच फायदयाची ठरू शकते. शेती ही फक्त शेती म्हणून न करता तिला जर आपण व्यवसायाची जोड दिली तर शेती हा धंदा नुकसानीचा राहणार नाही. शेतीचे प्रश्न सोडविले तर यामधून आर्थिक उन्नती होवून लघु कृषकाला एक चांगले जिवन जगण्यास मदत करेल. (सीघये, वासुदेव मराठी विद्यान परिषद ७ जून २०१३)

एकुण शेती आणि शेतकऱ्यांच्या प्रश्नांकडे शासन आणि प्रशासनाची बेफिकरवृत्ती आणि उदासिन मानसिकता तपासणे आवश्यक झाले आहे शेतकऱ्यांना या समस्यामधून मुक्त करायचे असेल तर शेतीला पुरक व्यवसायाची जोड दिली तर शेती फायदयाची होऊ शकते? प्रस्तुत शोध निबंधात या संदर्भात सर्व बाबींची चर्चा केले आहे.

हवामान बदलाचा मोठा प्रभाव शेतीवर पडलेला आहे कधीकाळी भरभरून उत्पन्न देणारी शेती आज पिकेनाशी झाली आहे. कारण गेली काही वर्षे हवामानाचा मोठा फटका शेतीला बसला शेतकरी कष्ट करतो पण त्याला स्वाभीमानाने जगता येईल इतपत परतावा शेतीतून मिळत नाही म्हणून शेतीवर आधारीत पुरक व्यवसाय शेतकऱ्यांनी सुरू करून उत्पन्न मिळविले पाहिजे.

महाराष्ट्रातील साधारण ६५ ते ७० टक्के शेतजमीन ही कोरडवाहू आहे. म्हणजेच शेती पुर्णपणे पावसाच्या पाण्यावर अवलंबून आहे. अशातच या जमीनीचा विकास करतांना अनेक समस्यांचा सामना शेतकरी करत असतो. अवकाळी पाउस, ओला दुष्काळ, सुका दुष्काळ अशा बदलल्या परिस्थितीमुळे शेतकऱ्यांचे अतोनात नुकसान होत असते. उत्पन्नापेक्षा लागवड खर्च जास्त झाल्याने अनेक शेतकरी आपली जिवनयात्रा संपवतात अशा परिस्थितीवर मात करणे ही काळाची गरज बनली आहे त्यासाठी शेतीचे उत्पन्न वाढणे आवश्यक आहे. शेतीला जोडधंद्याची साध देवून आपण लाखो रूपयांचा नफा मिळू शकतो. पोलट्टी व्यवसाय, रेशीम व्यवसाय, शेळीपालन, मधुमक्षीका पालन, ईमू फार्मींग, कपोस्ट खत, वराह पालन, गुळ निर्मिती व्यवसाय, आवळा प्रक्रिया, नर्सिरी व्यवसाय, गाय पालन, म्हैस पालन, गावरन कोंबडी पालन, फुलशेती, बटेर पालन, दुधापासून विविध पदार्थांची निर्मिती, दालमिल, शेततळ्यातील मासे पालन, हरितगृह शेती व बाबुशेती इ. व्यवसाय करता येवू शकतात. (सिंघये, वासुदेव, मराठी विज्ञान परिषद ७ जून २०१३)

अभ्यासाचे उद्देश :

१. शेतीमध्ये जोड व्यवसाय सुरू केले तर शेतकऱ्यांचा विकास साधता येईल याचा अभ्यास करणे.
२. शेतीबरोबर पुरक व्यवसाय निर्माण केले तर शेती ही फायदयाची होईल याचा अभ्यास करणे.

३. शेतीला पुरक व्यवसाय निर्माण करण्याकरीता शासनांच्या योजनांचे मुल्यांकन करणे?

अध्ययनाची उपकल्पना :

१. शेतीला जोड व्यवसाय नसल्यामुळे शेतकऱ्यांचा आर्थिक विकास होत नाही.
२. शेतीला जोड व्यवसाय सुरु करण्याकरीता शासनाने पूरक योजना सुरु कराव्या.
३. शेतीला पूरक व्यवसाय सुरु करण्याकरीता सबसिडी दिल्यास शेती ही फायदयाची होईल.

संशोधन पध्दती :

अध्ययनाचे विश्व व क्षेत्र : प्रस्तुत अध्ययनात पुर्व विदर्भातील नागपूर, चंद्रपूर, गडचिरोली, वर्धा, भंडारा व गोंदिया येथील २९२ लघु कृषकांना समाविष्ट करण्यात आले. व हे अध्ययन डिसेंबर २०२१ ते मार्च २०२२ या कालावधीत करण्यांत आले.

प्रस्तुत अध्ययनात वर्णनात्मकत आराखडयाचा उपयोग करण्यातना आला.

प्रस्तुत अध्ययनात गैरसंभावता नमुना निवड पध्दतीतील सोयीस्कर नमना निवड द्वारे पुर्व विदर्भातील २९२ लघु कृषकांना समाविष्ट करण्यात आले.

प्रस्तुत अध्ययना मध्ये शेती बरोबर पुरक व्यवसाय व शेती फायदयाची आहे याबद्दल आपले मत यासंबंधाची व्दीचल सारणीच्या प्राप्त माहीतीवे विश्लेषण खालील प्रमाणे.

अ.क्र	पुरक व्यवसाय	शेती ही फायद्याची आहे काय				एकूण
		फायद्याची आहे	फायद्याची नाही	कधी कधी फायदा होतो	अजिबात फायदा होत नाही	
१	दुग्ध व्यवसाय	३४ (११.६ :)	०४ (१.४:)	१७ (५.८:)	४ (१.४:)	५९ (२०.२:)
२	कुकुट पालन	२० (६.८:)	५ (१.७:)	१९ (६.५:)	०० (००:)	४४ (१५.१:)
३	शेळी पालन	१९ (६.५ :)	८ (२.७ :)	१७ (५.८:)	०१ (०.३:)	४५ (१५.४:)
४	मच्छी पालन	६ (२.१:)	१ (०.३:)	५ (१.७:)	०० (००:)	१२ (४.१:)
५	कृषी पर्यटन	०२ (०.७ :)	२ (०.७ :)	०१ (०.३:)	० (०:)	५ (१.७:)
६	गांडुळ खत प्रकल्प	४ (१.४ :)	१ (०.३ :)	३ (१.०:)	० (०:)	८ (२.७ :)
७	फुलाची शेती	० (० :)	१ (०.३ :)	० (०:)	०१ (०.३:)	०२ (०.७ :)
८	भाजीपाला विक्री केंद्र	०४ (१.४ :)	१ (०.३ :)	० (० :)	० (० :)	५ (१.७:)
९	रेशीम उद्योग	४ (१.४:)	४ (१.४:)	५ (१.७ :)	० (०:)	१३ (४.५:)

अ.क्र	पुरक व्यवसाय	शेती ही फायद्याची आहे काय				एकूण
		फायद्याची आहे	फायद्याची नाही	कधी कधी फायदा होतो	अजिबात फायदा होत नाही	
१	दुग्ध व्यवसाय	३४ (११.६ :)	०४ (१.४:)	१७ (५.८:)	४ (१.४:)	५९ (२०.२:)
२	कुक्कुट पालन	२० (६.८:)	५ (१.७:)	१९ (६.५:)	०० (००:)	४४ (१५.१:)
१०	काहीच नाही	४२ (१४.४:)	१६ (५.५:)	३२ (११.००:)	०९ (३.१:)	९९ (३.९:)
	एकूण	१३५ (४६.२ :)	४३ (१४.७ :)	९९ (३३.९:)	१५ (५.१:)	२९२ (१००:)

(Chi.Sq.=36.134, df = 27, CC = 0.332, N=292, P < 0.05)

उपरोक्त सारणीत स्वतंत्र चलामध्ये शेतीबरोबर पुरक व्यवसाय दर्शविलेले असून त्यात दुग्ध व्यवसाय, कुक्कुट पालन, शेळी पालन, मच्छी पालन, कृषी पर्यटन, गाढूळ खत प्रकल्प, फुलाची शेती, भाजीपाला विक्री केंद्र, रेशीम उद्योग, काहीच नाही अशा दहा बाबींचा समावेश केला आहे. तर अवलंबीत चलामध्ये शेती ही फायद्याची आहे काय नमुद केले असून त्यात फायद्याची आहे, फायद्याची नाही, कधी कधी फायदा होतो, अजिबात फायदा होत नाही अशा चार पर्यायांचा समावेश केलेले आहे.

दुग्ध व्यवसाय असणाऱ्या उत्तरदात्यांची संख्या ६९ असून त्यांचे २०.२० टक्के आहे. त्यात शेती ही फायद्याची आहे असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ११.६ टक्के आहे. शेती ही फायद्याची नाही असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण १.४ टक्के आहे. शेतीमध्ये कधी कधी फायदा होतो असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ५.८ टक्के आहे. तर शेतीमध्ये अजिबात फायदा होत नाही असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण १.४ टक्के आहे.

कुक्कुट पालनव्यवसाय असणाऱ्या उत्तरदात्यांची संख्या ४४ असून त्यांचे १५.१ टक्के आहे. त्यात शेती ही फायद्याची आहे असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ६.८ टक्के आहे. शेती ही फायद्याची नाही असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण १.७ टक्के आहे. शेतीमध्ये कधी कधी फायदा होतो असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ६.५ टक्के आहे. तर शेतीमध्ये अजिबात फायदा होत नाही असे म्हणणारा एकही उत्तरदाता आढळून आलेला नाही.

शेळी पालन व्यवसाय असणाऱ्या उत्तरदात्यांची संख्या ४५ असून त्यांचे १५.४ टक्के आहे. त्यात शेती ही फायद्याची आहे असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ६.५ टक्के आहे. शेती ही फायद्याची नाही असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण २.७ टक्के आहे. शेतीमध्ये कधी कधी फायदा होतो असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ५.८ टक्के आहे. तर शेतीमध्ये अजिबात फायदा होत नाही असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ०.३ टक्के आहे.

मच्छी पालन व्यवसाय असणाऱ्या उत्तरदात्यांची संख्या १२ असून त्यांचे ४.१ टक्के आहे. त्यात शेती ही फायद्याची आहे असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण २.१ टक्के आहे. शेती ही फायद्याची नाही असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ०.३ टक्के आहे. शेतीमध्ये कधी कधी फायदा होतो असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण १.७ टक्के आहे. तर शेतीमध्ये अजिबात फायदा होत नाही असे म्हणणारा एकही उत्तरदाता आढळून आलेला नाही.

कृषी पर्यटन शेतीपुरक व्यवसाय असणाऱ्या उत्तरदात्यांची संख्या ५ असून त्यांचे १.७ टक्के आहे. त्यात शेती ही फायद्याची आहे असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ०.७ टक्के आहे. शेती ही फायद्याची नाही असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ०.७ टक्के आहे. शेतीमध्ये कधी कधी फायदा होतो असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ०.३ टक्के आहे. तर शेतीमध्ये अजिबात फायदा होत नाही असे म्हणणारा एकही उत्तरदाता आढळून आलेला नाही.

गाढूळ खत प्रकल्प व्यवसाय असणाऱ्या उत्तरदात्यांची संख्या ८ असून त्यांचे २.७ टक्के आहे. त्यात शेती ही फायद्याची आहे असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण १.४ टक्के आहे. शेती ही फायद्याची नाही असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ०.३

टक्के आहे. शेतीमध्ये कधी कधी फायदा होतो असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण १ टक्के आहे. तर शेतीमध्ये अजिबात फायदा होत नाही असे म्हणणारा एकही उत्तरदाता आढळून आलेला नाही.

फुलाची शेती पुरक व्यवसाय असणाऱ्या उत्तरदात्यांची संख्या २ असून त्यांचे ०.७ टक्के आहे. त्यात शेती ही फायद्याची आहे असे म्हणणारा एकही उत्तरदाता आढळून आलेला नाही. शेती ही फायद्याची नाही असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ०.३ टक्के आहे. शेतीमध्ये कधी कधी फायदा होतो असे म्हणणाऱ्या एकही उत्तरदाता आढळून आलेला नाही. तर शेतीमध्ये अजिबात फायदा होत नाही असे म्हणणारा उत्तरदात्यांचे प्रमाण ०.३ टक्के आहे.

भाजीपाला विक्री केंद्र शेतीपुरक व्यवसाय असणाऱ्या उत्तरदात्यांची संख्या ५ असून त्यांचे १.७ टक्के आहे. त्यात शेती ही फायद्याची आहे असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण १.४ टक्के आहे. शेती ही फायद्याची नाही असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ०.३ टक्के आहे. शेतीमध्ये कधी कधी फायदा होतो असे म्हणणारा एकही उत्तरदाता आढळून आलेला नाही. तर शेतीमध्ये अजिबात फायदा होत नाही असे म्हणणारा एकही उत्तरदाता आढळून आलेला नाही.

रेशीम उद्योग शेतीपुरक व्यवसाय असणाऱ्या उत्तरदात्यांची संख्या १३ असून त्यांचे ४.५ टक्के आहे. त्यात शेती ही फायद्याची आहे असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण १.४ टक्के आहे. शेती ही फायद्याची नाही असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण १.४ टक्के आहे. शेतीमध्ये कधी कधी फायदा होतो असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण १.७ टक्के आहे. तर शेतीमध्ये अजिबात फायदा होत नाही असे म्हणणारा एकही उत्तरदाता आढळून आलेला नाही.

कुठलाही शेतीपुरक व्यवसाय नाही असे म्हणणाऱ्या उत्तरदात्यांची संख्या ९९ असून त्यांचे ३३.९ टक्के आहे. त्यात शेती ही फायद्याची आहे असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण १४.४ टक्के आहे. शेती ही फायद्याची नाही असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ५.५ टक्के आहे. शेतीमध्ये कधी कधी फायदा होतो असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ११ टक्के आहे. तर शेतीमध्ये अजिबात फायदा होत नाही असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण ३.१ टक्के आहे.

उपरोक्त सारणीच्या विश्लेषणावरून असे स्पष्ट होते की, कुठलाही शेतीपुरक व्यवसाय नाही असे म्हणणाऱ्या उत्तरदात्यांचे प्रमाण सर्वाधिक ३३.९ टक्के तसेच त्या खालोखाल दुग्ध शेती पुरक व्यवसाय असणाऱ्या उत्तरदात्यांचे प्रमाण २०.२ टक्के तर शेळी पालन शेतीपुरक व्यवसाय असणाऱ्या उत्तरदात्यांचे प्रमाण १५.४ टक्के व कुक्कुटपालन शेतीपुरक व्यवसाय असणाऱ्या उत्तरदात्यांचे प्रमाण १५.१ टक्के आहे. ;बिपणैत्र३६ण१३४ए कि त्र २७ए ळ त्र ०ण३३२ए छत्र२९२ए च ढ ०ण०५द्ध याचाच अर्थ या अध्ययनामध्ये बहुतांशी लघुकृषक शेतीबरोबर पुरक व्यवसाय करीत नाही. असे आपल्याला दिसून येते. लघुकृषकांनी शेतीबरोबर पुरक व्यवसाय सुरू करण्याकरीता सरकारद्वारे जनजागृती करण्याची गरज आहे त्याच प्रमाणे ग्रामिण भागातील लघुकृषकांना सुध्दा शेतीबरोबर पुरक व्यवसाय सुरू करण्याकरीता मदत केली पाहिजे.

सुचना व शिफारसी:

१. शेती ही फायद्याची करायची असेल तर सरकारनी लघुकृषकांना शेती पुरक व्यवसाय सुरू करण्याकरीता आर्थिक मदत मोठया प्रमाणात करायला पाहिजे.
२. ग्रामिण भागातील सर्व लघुकृषकांनी सामुहिकपणे जर शेतीला पुरक व्यवसाय सुरू केले तर शेती ही नक्कीच फायद्याची होईल.
३. शेतीच्या उत्पादनावर आधारित खादय व्यवसाय सुरू करण्याकरीता सरकारनी ५० टक्के सबसीडी द्यावी.
४. शेतीवर आधारित कुक्कुट पालन, दुग्ध व्यवसाय, शेळी पालन व्यवसाय सुरू करण्याकरीता ५० टक्के सबसीडी द्यावी.

संदर्भ :-

१. के. जी महाराष्ट्र ११ जुन २०२१
२. चव्हाण, शैजेश म.टा. २८ जानेवारी २०१६
३. सिंधये, वासुदेव, मराठी विज्ञान परिषद ७ जुन २०१३

भारतीय आदिवासी समुदाय : एक ऐतिहासिक दृष्टीकोन

Dr. P. R. Gaurkar

Asst.Professor, Department of History

S.M.K.Zoting Patil Art,Commerce & Science College, Samudrapur

सारांशः

आदिवासी हे सामान्यतः भारतीय संबंधित भागातील मूळ रहिवासी मानले जातात, शहरी संस्कृतीपासून ते दूर असतात. ते विरळ लोकवस्तीचे आहेत, सहसा जंगलात, दुर्गम दऱ्यांमध्ये आणि सुसंस्कृत समुदायांपासून दूर असलेल्या भागात राहतात. नागरी संस्कृतीच्या विशिष्ट चालीरीती किंवा 'संस्कृती' आदिवासींमध्ये तसेच ज्यांचा समाजाशी कोणताही संबंध नाही. अर्थात, जगातील सर्व जमाती त्या त्या प्रदेशातील आहेत, असे ठामपणे सांगता येणार नाही. परंतु अधिक सार्वत्रिक संज्ञा नसताना, आदिम संस्कृतीचा संदर्भ घेताना आदिवासी ही संज्ञा रूढ झाली आहे. अनेक नागरी संस्कृती उदयास आल्या, पण संपर्क नसल्यामुळे आदिवासी जमाती जशा आहेत तशाच राहिल्या. आदिवासी समुदायांवर बरेच संशोधन आणि लेखन झाले असले तरी, आदिवासी या शब्दाची सार्वत्रिक व्याख्या नाही. वर्तमान शोधपत्रात आदिवासी संस्कृतीचा इतिहास आणि परंपरा यावर चर्चा केली आहे.

मुख्य शब्द - आदिवासी, संस्कृती, मानवी विकास, दृष्टीकोन

उद्देश्यः

- आदिवासी समुदायाचा इतिहास अभ्यासणे
- आदिवासी समुदायाची संस्कृती अभ्यासणे
- भारतीय आदिवासी समुदायाचा विस्तार अभ्यासणे
- भारतीय आदिवासी समुदायाची भौगोलिक विभागणी अभ्यासणे

प्रस्तावना:

एबोरीजीनल हा इंग्रजी शब्द आदिवासी साठी मानक पर्याय आहे. त्यांना वनवासी म्हणावे, आदिवासी नाही, आदिवासींची वेगळी ओळख किंवा संस्कृती नाही, ते इतर नागरिकांसारखेच आहेत, जंगलात राहतात. अनेक आदिवासी समूह डोंगरात राहत असल्याने त्यांना गिरिजन सुद्धा म्हणतात. एका विशिष्ट आदिवासी समूहाला जमात असेही म्हणतात उदा. वारली जमात, ठाकूर जमात इ. आदिम म्हणजे अविकसित लोक आणि 'शैवज' म्हणजे मागासलेले किंवा जंगली लोक. 'आदिमा' किंवा 'जंगली' हे शब्द आदिवासींचे मागासलेपण, अज्ञान किंवा अगदी निष्पापपणा दर्शवतात. आदिवासी या शब्दाला निश्चित अर्थ देणे हे मानववंशशास्त्रातील अजूनही न सुटलेले कोडे आहे. आंतरराष्ट्रीय कामगार संघटनेने शिफारस केली आहे की आदिवासींना स्वदेशी संबोधले जाईल कारण आदिवासी संस्कृती इतर संस्कृतींच्या संपर्कातून स्वतंत्रपणे तयार होते. अलीकडे त्यांना निरक्षर समाज म्हणून संबोधण्याची शिफारसही करण्यात आली आहे. आदिवासी बोलींना लिपी नाही. त्यामुळे आदिवासी समाज निरक्षर आहे. अलीकडच्या मानववंशशास्त्रीय लेखनात आदिवासी समाजांना निरक्षर समाज असे संबोधले जाते.

आदिवासी दृष्टीकोन आणि अभ्यासः

भारतीय संस्मरणात आदिवासी जमातींचा उल्लेख आढळतो. संस्मरण त्या अनुलोम-प्रतिलोमा संकरित आहेत असे म्हणतात. पण त्यातील शबर, रक्षा, निषाद, किरात हे अनेक जातीचे नसून आदिवासी होते त्यामुळे

त्यांना हीन दर्जा मिळाला. रामायणात किरात, निषाद, शबर इत्यादी आदिवासींचा उल्लेख आहे. किरात बेटावर राहतात, कच्चे मासे खातात आणि खाली मानवी शरीर आणि वर वाघाचे शरीर असा उल्लेख आहे. निषाद म्हणजे जंगलात राहणारे लोक. पुलिंदा आणि किरात हे हिमालयात राहणारे आदिवासी असल्याचा उल्लेख महाभारतात आहे. एकलव्याची कथा सर्वश्रुत आहे. चेदी राजांच्या नंतरच्या शिलालेखांमध्ये धीरू नावाच्या टोळीने कलचुरी राजाविरुद्ध बंड केल्याचा उल्लेख आहे.

भारताच्या इतिहासात अशी अनेक उदाहरणे आहेत जिथे आदिवासी जमाती स्थानिक राजांच्या वतीने लढल्या. शिवाजी महाराजांना रामोशी व कोळी जमातींची बरीच मदत मिळाली. आदिवासींवर अत्याचार करणाऱ्यांविरुद्ध अनेक बंडखोरी झाली. १७७८ ते १९४७ या काळात आसाम, बिहार, मध्य प्रदेश आणि आंध्र प्रदेशात सुमारे ७५ दंगली झाल्या. यातील बहुतांश ब्रिटिश राज्यकर्त्यांच्या विरोधात होते. महाराष्ट्रातही भिल्लांनी इंग्रजांविरुद्ध उठाव केला. अमेरिकेचा शोध लागल्याने पाश्चिमात्य देशांचे लक्ष आदिवासींकडे वळले. युनायटेड स्टेट्समधील वसाहतवाद्यांना स्थानिक लोकांशी सतत युद्धे करावी लागली. त्यावेळी युरोपमध्ये जमातींच्या स्थितीबाबत बराच वाद झाला होता. मॉंटग्रे यांनी आदिवासी संस्कृतीत ढवळाढवळ न करण्याचा सल्ला दिला. त्यांच्या मते आदिवासी हे रानफुलांसारखे रानटी आहेत. सतराव्या शतकात आदिवासींच्या सुखी जीवनावर आधारित अनेक उत्कृष्ट साहित्य लिहिले गेले. १६४० मध्ये, वॉल्टर हॅमंडने घोषित केले की मादागास्कर बेटावरील लोक जगातील सर्वात आनंदी आहेत. प्रसिद्ध फ्रेंच लेखक रुसो यांनी जंगली आदिम माणसाच्या स्वतंत्र काल्पनिक जीवनाची कल्पना मांडली आणि तेव्हापासून नोबल सेव्हेज या शब्दाला लोकप्रियता मिळाली. पुढील शतकातील कॅप्टन नाकुक आणि इतर प्रवाशांच्या प्रवासवर्णनातही हाच आवाज प्रतिध्वनी आहे. कॅप्टन कुक म्हणतो की, ऑस्ट्रेलियातील आदिवासी युरोपियन लोकांपेक्षा जास्त आनंदी आहेत. जसजसा युरोपियन साम्राज्यवाद पसरला, तसतसे ख्रिश्चन मिशनऱ्यांचे कार्यही पसरले. ख्रिश्चन मिशनऱ्यांनी वसाहतवाद्यांना धर्मांतर करण्यास प्रवृत्त केले. साम्राज्यवाद आणि ख्रिश्चन धर्माच्या प्रसारामुळे, आदिवासी संस्कृतीचा अधिकाधिक अभ्यास सुरू झाला आणि त्यांच्यामध्ये धर्माचा प्रसार सुलभ करण्यासाठी, त्यांच्या चालीरीतींचा कठोरपणे अभ्यास केला गेला. पूर्वी अनेक प्रवासवर्णनातून दिलेल्या माहितीच्या आधारे आदिवासी संस्कृतीचा थोडासा परिचय होत असे. सर्वसामान्यांना अतिशय वेगळ्या आदिवासी दृष्टिकोनाचे वर्णन मनोरंजक वाटले. डार्विनने १८५९ मध्ये जैविक उत्क्रांतीचा सिद्धांत मांडला, त्याचप्रमाणे हर्बर्ट स्पेन्सरने सामाजिक संस्थांचा उत्क्रांतीचा सिद्धांत मांडला. साहजिकच मानवाचा विकास कोणत्या ना कोणत्या सिद्धांतानुसार झाला असावा. जर मानव एकाच प्रजातीचे असतील तर त्यांच्या संस्कृती वेगळ्या का आहेत? या प्रश्नाचे उत्तर शोधण्याचा प्रयत्न करण्यात आला. आदिवासी संस्थांच्या अभ्यासामुळे मानवी संस्थांच्या उत्पत्तीची आणि विकासाची निश्चित कल्पना येईल, असे प्राचीन मानववंशशास्त्रज्ञांचे मत होते, कारण आदिवासी समाज अशा खोऱ्यांमध्ये शतकानुशतके आधुनिक संस्कृतीपासून दूर राहत होता. त्या संदर्भात अमेरिका, आफ्रिका, आशिया आणि ऑस्ट्रेलियातील आदिवासी संस्कृतींचा अभ्यास करण्यात आला. मानववंशशास्त्राची तत्त्वे या अभ्यासावर आधारित आहेत. लुईस मॉर्गन या अमेरिकन मानववंशशास्त्रज्ञाचा असा विश्वास होता की आदिवासी संस्कृतीत साम्यवादी अर्थव्यवस्था आणि सामाजिक व्यवस्था आहे. ही कल्पना मार्क्सवाद्यांनी मान्य केली, परंतु नंतरच्या जमातींच्या तपशीलवार अभ्यासाने ती निराधार असल्याचे सिद्ध केले. मानववंशशास्त्राने आदिवासींच्या अभ्यासाला महत्त्व दिले आहे. मानववंशशास्त्रज्ञांच्या मते, आधुनिक जटिल संस्कृतींचा अभ्यास करण्यापेक्षा जमातींच्या साध्या आणि सरळ संस्कृतींचा अभ्यास करणे अधिक योग्य आहे. याचे कारण असे की साध्या संस्कृतींच्या अभ्यासामुळे मानवी वर्तनाची मूलभूत तत्त्वे शोधणे आणि त्यावर आधारित जटिल संस्कृती समजून घेण्याचा प्रयत्न करणे सोपे आणि अधिक उपयुक्त बनते. मानवी समाजातील सर्व घटकांच्या समान विकासासाठी आदिवासींनीही प्रगती केली पाहिजे या मानवतावादी दृष्टिकोनाच्या अनुषंगाने आदिवासींच्या अभ्यासाला अलीकडे महत्त्व प्राप्त झाले आहे.

भारतीय आदिवासी:

आफ्रिका खंडानंतर भारतामध्ये आदिवासी जमातींची संख्या दुसऱ्या क्रमांकावर आहे. १९६१ च्या जनगणनेनुसार, आदिवासींची संख्या २,९८,४६,३०० होती, जी भारताच्या एकूण लोकसंख्येच्या 6.8 टक्के आहे. यातील निम्मे आदिवासी मध्य प्रदेश (६६ लाख), ओरिसा (४२ लाख) आणि बिहार (४२ लाख) मध्ये आहेत. याशिवाय गुजरात (२७ लाख), राजस्थान (२३ लाख), आसाम (२० लाख), महाराष्ट्र (२४ लाख), पश्चिम बंगाल (२० लाख) आणि आंध्र प्रदेश (१३ लाख) येथेही आदिवासींची संख्या मोठी आहे. नागालँड, मेघालय आणि अरुणाचल प्रदेश ही आदिवासी राज्ये आहेत. भारतीय राज्यघटनेनुसार जमातींना अनुसूचित जमाती म्हणतात. गोंड, संथाल आणि भिल्ल जमातींची प्रत्येकी २.५ दशलक्ष लोकसंख्या आहे. गोंड आदिवासी आंध्र, बिहार, मध्य प्रदेश, महाराष्ट्र आणि ओरिसामध्ये पसरलेले आहेत, संथाल आदिवासी बिहार, ओरिसा आणि पश्चिम बंगालमध्ये पसरलेले आहेत, भिल्ल आदिवासी आंध्र, गुजरात, मध्य प्रदेश, महाराष्ट्र आणि राजस्थानमध्ये पसरलेले आहेत. ओराव, नागा, खोंड आणि मुंडा या आदिवासी जमातींची संख्या ५ ते १० लाख आहे. आदिवासींचे अनेक धर्म आहेत. त्यांचे धर्म इस्लाम, हिंदू, ख्रिश्चन इत्यादी धर्मांपेक्षा पूर्णपणे भिन्न आहेत. ते अनेकदा त्यांच्या पूर्वजांची, गावाची आणि निसर्गाची पूजा करतात. निसर्गाशी संबंधित असलेल्या पर्वत, नद्या, प्राणी इ. ते वेगवेगळ्या ठिकाणांशी संबंधित आहेत आणि तेथे राहतात असे मानले जाते. गावाच्या हद्दीतील पवित्र द्राक्ष बागांमध्ये गावातील आत्म्यांची पूजा केली जाते तर पितरांची घरी पूजा केली जाते. आदिवासींवर त्यांच्या सभोवतालच्या बौद्ध आणि ख्रिश्चन धर्मांचा आणि शाक्त, वैष्णव, भक्ती इत्यादी पंथांचा प्रभाव आहे. पण विवध राज्यांमध्ये प्रचलित असलेल्या प्रबळ धर्मांवरही आदिवासींच्या धर्मांचा प्रभाव पडला आहे हेही खरे आहे. ओरिसातील जगन्नाथ पंथ आणि बंगाल आणि आसाममधील शक्ती आणि तांत्रिक परंपरा ही त्यांची उदाहरणे आहेत. एकोणिसाव्या शतकात अनेक आदिवासी जमातींनी ख्रिस्ती धर्म स्वीकारला, जो आधुनिक आदिवासी इतिहासातील महत्त्वाचा धर्म बनला आहे.

भौगोलिकदृष्ट्या, भारतातील आदिवासी चार प्रमुख गटांमध्ये विभागले जाऊ शकतात-

उत्तर आणि ईशान्य:

प्रामुख्याने या भागात भुतिया, थारू, लेपचा, नागा, गारो, खासी, डफला, कुकी, अबोर मिकीर इ. जाती येतात. भूटिया आणि थारू जमाती उत्तर प्रदेशच्या उत्तर सीमा भागात राहतात. लेपचा सिक्कीम आणि भारत-सिक्कीम सीमा. इतर जमाती आसाम-उत्तर-पूर्व सीमा आणि नागा आदिवासी याच भागात राहतात.

मध्यम विभाग:

या भागात आदिवासींची संख्या सर्वाधिक आहे. बिहारमधील संथाल, मुंडा, ओराव, बिरहोर, ओरिसा बोंडो, खोंड, सावरा आणि जुआंग, मध्य प्रदेशात गोंड, बैगा, कोल, कोरकू, भुजिया इ. राजस्थानातील भिल्ल आणि दख्खनच्या पठारावर चेंचू, कोलम, कोया इ. आदिवासी जमाती प्रसिद्ध आहेत.

पश्चिम विभाग:

या विभागामध्ये सह्याद्री प्रदेशात राहणाऱ्या आदिवासी जमातींचा समावेश होतो. यामध्ये वारली, कातकरी, महादेव-कोळी, ठाकूर, भिल्ल यांचा समावेश आहे. याशिवाय आंध्र, कोलाम इ. जमाती आहेत. गुजरातमध्ये वारली, भिल्ल, दाबला, वाघरी इत्यादी जमाती आहेत.

दक्षिणेकडील प्रदेश :

या भागात अनेक अल्पसंख्याक आदिवासी राहतात. यामध्ये तोडा, बडागा, कोरा, इरुला, कुरंबा, एरवलन, अदियन, अरंडन इत्यादींचा समावेश होतो. त्रिपुरा, मणिपूर, अंदमान आणि निकोबार बेटे देखील अनेक आदिवासींचे निवासस्थान आहेत. भारतात ३०० हून अधिक आदिवासी जमाती आहेत.

निष्कर्ष:

- ❖ आदिवासी जमाती एका विशिष्ट भागात राहतात आणि ते क्षेत्र प्रगत समाजाच्या क्षेत्रापेक्षा लहान असते. आदिवासी भाग इतर प्रगत समुदायांपासून दूर किंवा जंगलात असते आणि रस्ता नसल्याने हा परिसर दुर्गम असतो.
- ❖ आदिवासी जमाती सामान्यतः आंतरविवाहित असतात आणि विवाहबाह्य कुळांमध्ये विभागल्या जातात. समाजातील गट लहान आहेत आणि ते नातेसंबंधांवर आधारित आहेत. या गटांचे सदस्यत्व आधुनिक समाजातील कोणत्याही क्लब सदस्यत्वासारखे ऐच्छिक नाही.
- ❖ प्रत्येक आदिवासी जमातीची स्वतंत्र पंचायत असते. आदिवासी समाजावर पूर्णपणे पंचायत किंवा त्यांच्या प्रमुखाचे नियंत्रण असते.
- ❖ आदिवासी जमातींची अनेकदा वेगळी भाषा किंवा बोली असते.
- ❖ आदिवासींचा धर्म प्रादेशिक म्हणजेच त्यांच्या राहण्याच्या ठिकाणापुरता मर्यादित आहे. त्यांची तीर्थक्षेत्रेही त्यांच्या परिसरात आहेत.
- ❖ प्रत्येकजण सर्व प्रकारची कामे करतो. शिवाय, आदिवासी अर्थव्यवस्थेत उत्पादनाची साधने प्राथमिक आहेत. मूलभूत साधने जसे की हातोडा, विळा इ. उत्पादन कमी असल्याने बाजारपेठ नाही. त्यांची अर्थव्यवस्था मुख्यतः चलन आधारित आणि वस्तु विनिमय आधारित आहे.
- ❖ आदिवासी समाजात परंपरेला प्राधान्य दिले जाते. एका पिढीकडून दुसऱ्या पिढीला कथा, कविता, नृत्य इत्यादी सांगण्याची परंपरा ते जपतात.
- ❖ आदिवासी धर्मात निसर्गपूजा, जादू यांसारख्या उपक्रमांना महत्त्व आहे.
- ❖ आदिवासी समाजात परंपरा आणि सामाजिक नियंत्रणावर भर असल्यामुळे सर्व लोक सारखेच वागतात. दैनंदिन जीवनात काही विशिष्ट कृतींमुळे सवयी आणि प्रथा तयार होतात.
- ❖ आदिवासी समाज बहुतांशी आत्मकेंद्रित असतात; त्यांचे आत्मकेंद्रित होणे स्वाभाविक आहे कारण त्यांचे आर्थिक, सामाजिक आणि धार्मिक जीवन शतकानुशतके बाहेरील संपर्कापासून अलिप्त राहिले आहे.

समारोप:

सर्वसामान्य समाजात आदिवासींबद्दल भयंकर कुतूहल आहे. ते मोकळ्या मनाचे लोक आहेत असा समज आहे. जगातील सर्व समाज प्रथम आदिवासी होते. पुढे तो ग्रामीण समाज बनला. नंतर, राज्याच्या आगमनाने, राजधानी आणि व्यापार क्षेत्रे उद्धवली, अशा प्रकारे मानवी सभ्यतेची सुरुवात झाली. प्रख्यात मानववंशशास्त्रज्ञ रॉबर्ट रेडफिल्ड यांचे मत आहे की औद्योगिक क्रांतीनंतर मानवी समाजाची वाटचाल पूर्ण सभ्यतेकडे सुरू झाली आहे. आधुनिक काळात, यामुळेच जंगलतोडीची प्रक्रिया सुरू झाली आणि आदिवासी समाजाचे ग्रामीण समाजात रूपांतर सुरू झाले. दुसरीकडे, निसर्गाच्या सान्निध्यात मुक्त असलेले, आधुनिक जगाशी संपर्क साधून भ्रष्ट न झालेल्या आदिवासींचे जीवन आनंदी आणि अनुकरणीय आहे, या विचारावर पाश्चात्य साहित्यातही भर दिला जातो. आधुनिक युगात सभ्यतेचा प्रगतीशील विकास असूनही, विज्ञान लोकांना नैसर्गिक सुखांपासून दूर ठेवते. विज्ञानाने निर्माण केलेली मानसिक वेदना ही शारीरिक वेदनांपेक्षा मोठी आहे. अर्थात, आदिवासींच्या जीवनातील सुखांना साथ देणारे फार कमी लोक आहेत. कोणत्याही समाजाचा भूतकाळ खूप महत्त्वाचा असतो. आदिवासींच्या संदर्भात विचार केला तर प्रश्न अधिक तीव्र होतो की, त्यांना आदिम मानवी सभ्यतेच्या पुरातन वास्तू म्हणून आदिम राहणीमानात एकटे ठेवायचे की आधुनिक विज्ञान आणि तंत्रज्ञानाच्या प्रगतीत सामावून त्यांना संधी द्यायची? हा प्रश्नही तितकाच महत्त्वाचा आहे की, त्यांच्या विकासाच्या नावाखाली त्यांना आधुनिक गुंतागुंतीच्या राजनैतिक आणि समाजव्यवस्थेसमोर उद्ध्वस्त करण्यासाठी सोडायचे की त्यांना नव्या वातावरणात मुक्तपणे वावरण्याची पुरेशी संधी द्यायची?

संदर्भ सूची:

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कार्लमार्क्स यांचे तत्वज्ञान व विचार - एक राजकीय सिंहावलोकन

नितीन तुळशीराम शेडमाके

संशोधक

पोस्ट-मेंडकी, तह-ब्रह्मपुरी, जि.-चंद्रपूर

सारांश:

कार्ल मार्क्स (1818 - 1883) हे जर्मन तत्वज्ञानी, अर्थशास्त्रज्ञ, इतिहासकार, राजकीय सिद्धांतकार, समाजशास्त्रज्ञ, पत्रकार आणि वैज्ञानिक समाजवादाचे प्रणेते होते. त्यांचे पूर्ण नाव कार्ल हेनरिक मार्क्स यांचा जन्म 5 मे 1818 रोजी ट्रॅव्हस (प्रशिया) येथील ज्यू कुटुंबात झाला. 1824 मध्ये त्यांच्या कुटुंबाने ख्रिश्चन धर्म स्वीकारला. वयाच्या 17 व्या वर्षी मार्क्सने कायद्याचा अभ्यास करण्यासाठी बॉन विद्यापीठात प्रवेश केला. त्यानंतर त्यांनी बर्लिन आणि जेना विद्यापीठांमध्ये साहित्य, इतिहास आणि तत्वज्ञानाचा अभ्यास केला. या काळात हेगेलच्या तत्वज्ञानाचा त्यांच्यावर खूप प्रभाव पडला. 1839-41 मध्ये त्यांनी डिमोक्रेटस आणि एपिक्युरस यांच्या नैसर्गिक तत्वज्ञानावर प्रबंध लिहून डॉक्टरेट मिळवली. प्रस्तुत शोधपत्रात कार्लमार्क्स यांचे राजकीय तत्वज्ञान व विचार यावर प्रकाश टाकण्यात आलेला आहे.

सूचक शब्द – मार्क्सवाद, जातिवाद, तत्वज्ञान, राजकीय

उद्देश्य:

- कार्लमार्क्स यांचे तत्वज्ञान अभ्यासणे
- कार्लमार्क्स यांचे सामाजिक विचार अभ्यासणे
- मार्क्सवाद संकल्पना अभ्यासणे
- कार्लमार्क्स यांचे राजकीय विचार अभ्यासणे



प्रस्तावना:

5 मे 1818 रोजी जर्मनीतील एका गावात जन्मलेल्या कार्ल मार्क्स, प्राचीन भारताचे सर्वकालीन क्रांतिकारी विचारवंत; शिक्षक; समतावादी, सामूहिकतावादी समाजाचे आयोजक आणि स्वप्न पाहणारे, गौतम बुद्धानंतर, आजपर्यंतच्या मानवी इतिहासातील महान विचारवंत/शिक्षक आहेत. खुद्द बुद्धाप्रमाणेच त्यांची शिकवण मानवजातीच्या मुक्तीपर्यंत प्रासंगिक राहिल. येथे बुद्धाने सुरू केलेल्या वाद-संवादाच्या वैज्ञानिक, लोकशाही शैक्षणिक पद्धतीपासून किंवा बौद्ध वैचारिक-सामाजिक क्रांती आणि ब्राह्मणवादी प्रतिक्रांती यांच्या चर्चेपासून विचलित होण्यास जागा नाही. बुद्धाचे लक्ष वेधले गेले कारण दोघांनाही आपापल्या ऐतिहासिक संदर्भांमध्ये, अवकाश आणि काळाच्या पलीकडे समाजाची तर्कशुद्ध (वैज्ञानिक) समज होती. अद्वितीय जागतिक दृष्टीकोन आणि अंतर्दृष्टी; मानवमुक्तीची अटळ बांधिलकी आणि दुःख (शोषण) मुक्त समाज स्थापनेचा संकल्प आणि समर्पण हे एकच होते. दोघांनाही जग समजावून सांगायचे नव्हते तर ते बदलायचे होते. सामान्य माणूस (मजूर) हा सामान्यतः तत्ववेत्त्यांच्या दृष्टीच्या पलीकडे होता किंवा तिरस्काराचा विषय झाला आहे. तत्वज्ञानाच्या इतिहासात प्रथमच, 18 व्या शतकातील क्रांतिकारक तत्ववेत्ता, रूसो राजकीय सिद्धांतासाठी पात्र ठरले, त्यांनी 19 व्या शतकात सर्वहारा म्हणून त्यांची व्याख्या केली आणि त्यांना या स्वरूपात एक प्रामाणिक, वक्तृत्ववान प्रवक्ता सापडला. कार्ल मार्क्स. बर्लिन विद्यापीठात पीएचडी शिकत असतानाच त्यांनी सर्वहारा वर्ग हा इतिहासाचा नवा नायक म्हणून शोधला. 19 व्या शतकातील युरोपीय इतिहास हा क्रांती आणि क्रांतिकारी विचारांचा इतिहास आहे. ज्ञानाच्या विविध आयामांच्या शोधाच्या या युगात, लुई अल्थुसरच्या मते,

कार्ल मार्क्सने 'ज्ञानाचा एक नवीन खंड' शोधला, परंतु महाद्वीप या शब्दाचा अर्थ साम्राज्यवादी वसाहतवादाचा आहे, त्यामुळे मार्क्सने ऐतिहासिक भौतिकवादाच्या रूपात ज्ञानाची एक नवीन सौर यंत्रणा शोधून काढली असे म्हणणे अधिक योग्य आहे. युरोपियन पुनर्जागरण (१५वी-१६वी शतके) च्या लोकशाही पैलूपैकी एक म्हणजे गुणवत्तेचे जन्म-आधारित निकष काढून टाकले परंतु नवीन निर्माण केले. या काळातील इतिहास एका नव्या नायकाच्या उदयाचाही साक्षीदार आहे. हा नवीन नायक पुनर्जागरण काळात वर्तुळाच्या परिघातून चालत गेला आणि पुढील 150 वर्षे केंद्र व्यापला. नवोदित भांडवलशाहीचे प्रख्यात जैविक विचारवंत, जॉन लॉक, अजिबात संकोच न करता घोषित करतात की शासन ही एक गंभीर समस्या आहे जी केवळ त्यांच्याकडेच सोपविली जाऊ शकते ज्यांनी पुरेसे पैसे कमवून आपली क्षमता सिद्ध केली आहे. भांडवलशाहीच्या उदयाचा आणि विकासाचा हा काळ प्रबोधनाच्या युगाशी जुळला. प्रबोधन क्रांती ही एक बौद्धिक क्रांती होती, ज्यामध्ये विश्वास आणि परंपरेपेक्षा ज्ञान आणि उपयोगिता यांना प्राधान्य दिले गेले. आत्मज्ञानाच्या तर्कामध्ये असमानतेचे तर्क देखील समाविष्ट आहेत. सामाजिक-आर्थिक आणि राजकीय घटनांचे धर्मशास्त्रीय स्पष्टीकरण अवैध झाले होते. शासनाच्या धर्मशास्त्रीय विवेचनानुसार, देव आणि धर्म या संकल्पना अनुक्रमे, अधिकाराच्या वैधतेचे स्रोत आणि विचारधारा म्हणून अवैध ठरल्या. प्रबोधनाच्या विचारवंतांनी धर्मशास्त्रीय स्पष्टीकरण आणि वैधतेऐवजी कारण आणि तर्कावर आधारित स्पष्टीकरण आणि वैधतेच्या नवीन प्रवाहाचे उद्घाटन केले. या प्रवाहाचे इतिहासकार उदारमतवाद म्हणून ओळखले जातात. राजकीय विचारवंत आणि अर्थशास्त्रज्ञांचे लेखन केवळ उदयोन्मुख भांडवलशाहीचे स्पष्टीकरण देत नाही तर तिची अपरिहार्यता आणि वैधता आणि औचित्य देखील सिद्ध करते. उदारमतवादाच्या मुख्य संकल्पना म्हणजे व्यक्तिवाद आणि मालमत्ता अधिकारांसह नैसर्गिक हक्क. उदारमतवादाच्या विस्तृत विवेचनातून विषयांतराला जागा नाही. रौसोच्या विरोधी स्वराचा अपवाद वगळता, प्रबोधनवादी विचारवंत उदारमतवादी आहेत किंवा अँटोनियो ग्राम्स्कीच्या परिभाषेत भांडवलशाहीचे सेंद्रिय बुद्धिजीवी आहेत. संपत्ती आणि कामगार शक्तीच्या 'नैसर्गिक हक्कां'च्या उदारमतवादी तर्कामध्ये, श्रमाच्या शोषणाच्या अधिकाराचा युक्तिवाद देखील समाविष्ट आहे. मार्क्सने याचे वर्णन सशुल्क गुलामगिरीचा युक्तिवाद म्हणून केले आहे. एक प्रवाह फक्त इतिहास समजावून सांगण्यासाठी नाही तर त्याची धार बदलण्यासाठी आहे. ग्राम्स्कीच्या परिभाषेत मार्क्स हा कामगार वर्गाचा सेंद्रिय बौद्धिक होता आणि मार्क्सवाद हा सर्वहारा वर्गाचा सेंद्रिय बौद्धिक प्रवाह होता. मालमत्तेच्या उदारमतवादी अधिकाराच्या वैधतेला पहिले परंतु अस्पष्ट आव्हान रुसोकडून आले, ज्याने ते लुटण्याची कायदेशीरता म्हणून नाकारले. 100 वर्षांनंतर, कार्ल मार्क्सने मानवी मुक्तीसाठी खाजगी मालमत्तेच्या उच्चाटनाचे तत्व देऊन, एक नवीन विचारप्रवाह सुरू केला जो लवकरच मार्क्सवाद म्हणून ओळखला जाऊ लागला.

नवउदारमतवादी संकल्पना :

1989 मध्ये बर्लिनची भिंत पडल्यानंतर भांडवलशाही छावण्यांमध्ये खळबळ माजली. भांडवलवादी विचारवंत, फ्रान्सिस फुकुयामा यांनी घाईघाईने 'इतिहासाचा अंत' घोषित करणारा लेख लिहिला, जो सोव्हिएत युनियनच्या पतनानंतर पुस्तकात विस्तारित करण्यात आला. या पुस्तकात त्यांनी असा युक्तिवाद केला आहे की इतर सर्व शासनप्रणाली त्यांच्या दोषांमुळे संपुष्टात आल्या आहेत (त्याचा मुद्दा समाजवादाकडे आहे) परंतु उदारमतवादी लोकशाही सर्वत्र यशस्वी झाली आहे, म्हणून ती "माणसाच्या वैचारिक विकासाचा शेवटचा मुद्दा आहे" आणि " जसे की हा इतिहासाचा शेवट आहे". शब्द आणि कृती या भांडवलशाही द्वैताचे प्रतिबिंब दाखवून, तो ज्या तथाकथित स्थायी लोकशाहीबद्दल बोलतोय ती आता उदारमतवादी नाही, तर नवउदारमतवादी आहे, असे तो म्हणत नाही. उदारमतवादी राज्य लॅसेझ-फेअर होते, ते केवळ लुटमारीवर देखरेख करत होते. नवउदार राज्य हे विकासात सहभागी आहे. टाटांना कलिंगनगरच्या आदिवासींची जमीन भाड्याच्या गुंडांकडून बळकावता आली नाही, त्यांचे धाडसी आंदोलन चिरडण्यासाठी ओरिसा आणि भारत

सरकारचे पोलीस आवश्यक होते. उल्लेखनीय आहे की 2 जानेवारी 2006 रोजी कलिंगनगर आदिवासींच्या शांततापूर्ण निदर्शनावर ओरिसा पोलिसांनी केलेल्या गोळीबारात 16 आदिवासी शेतकरी मारले गेले आणि अनेक जखमी झाले. इतिहासही कधी संपत नाही, ना माणसाचा वैचारिक विकास, ना मार्क्सवादासारख्या कालातीत कल्पना ज्या तार्किक निष्कर्षपर्यंत पोहोचतात आणि इतिहास बनतात. जोपर्यंत वर्ग समाज आहे तोपर्यंत मार्क्सवाद प्रासंगिक राहिल आणि परिणामी वर्गसंघर्ष चालूच राहिल. "वर्ग संघर्ष ही एक सतत प्रक्रिया आहे, कधी उघडपणे, कधी गुप्तपणे". अन्यायाविरुद्धचा प्रत्येक संघर्ष हा वर्ग संघर्ष असतो. मार्क्सवादाला वैचारिक आधार मानणाऱ्या संघटनांचे देशात नगण्य अस्तित्व आहे, तरीही सोशल मीडियावर, उजव्या विचारसरणीचे लोक प्रत्येक प्रकारच्या चर्चेत मार्क्सवादाच्या भुताला बळी पडतात. सत्तेची भीती आहे, विचारांची दहशत आहे. प्रशिया (जर्मन) राज्याचे चारित्र्य पाहून मार्क्सलाही समजले की आपल्यासाठी शिक्षणाचे दरवाजे बंद झाले आहेत. उदरनिर्वाहासाठी आणि सत्य व्यवहारात सिद्ध करण्यासाठी, त्यांनी कोलोनमधील लोकशाही वृत्तपत्रात पत्रकारिता सुरू केली आणि लवकरच संपादक बनले. मार्क्सने जर्मनीतील सतत सेन्सॉरशिपला लोकांच्या मनावर आणि हृदयावर हेरगिरी करणे हे नैतिक दुष्ट मानले. आपल्या लेखणीतून भ्रष्टाचार उघड केल्यामुळे ते राज्य अधिकारी आणि धनदांडग्यांच्या रोषाचे कारण बनले. सरकारने वर्तमानपत्र बंद केले. मार्क्सच्या जीवनावर बरेच काही लिहिले गेले आहे, त्यावर विस्तृत चर्चेला वाव नाही किंवा गरज नाही. सत्ताधारी वर्ग हे नेहमीच वैज्ञानिक विचारांनी ग्रासलेले असतात आणि विचारवंताला मारण्याच्या कल्पनांना घाबरतात हे अधोरेखित करण्यासाठी काही गोष्टींचा उल्लेख करणे आवश्यक आहे. सॉक्रेटिसपासून सुरुवात करून, ब्रुनोच्या माध्यमातून गॅलिलिओ, डिडेरो, रूसो, ब्लँकी गुण, भगतसिंग, ग्रामस्की यांच्या उदाहरणांची ऐतिहासिक निरंतरता आहे. 1841 मध्ये डेमोक्रेटस आणि एपिक्युरियस या दोन प्राचीन ग्रीक निसर्गवादी तत्त्वज्ञानांचा तुलनात्मक अभ्यास करण्याआधी मार्क्सने इतिहासाचा नवीन नायक सर्वहारा म्हणून शोधला होता. विद्यार्थी जीवनात यंग हेगेलियनचे सदस्य म्हणून विद्यार्थी-राजकारणातही सक्रिय होते. तरुण हेगेलियन गट हेगेलच्या क्रांतिकारी विवेचनातून नास्तिकतेकडे वाटचाल करत होते. 1841 मध्ये प्रकाशित झालेल्या लुडविग फोर्टरबॅचच्या एसेन्स ऑफ ख्रिश्चनिटी या पुस्तकाचा मार्क्स आणि यंग हेगेलियन यांच्यावर खूप प्रभाव होता. त्याला हेगेलच्या आदर्शवादाचे अचूक समीक्षण वाटले. मार्क्सने नंतर यांत्रिक किंवा अलंकारिक भौतिकवाद म्हणून नाकारले आणि हेगेलच्या द्वंद्वात्मकाला आदर्शवादी म्हणत आणि दोघांचे द्वंद्वात्मक ऐक्य प्रस्थापित करून द्वंद्वात्मक भौतिकवादाचा सिद्धांत दिला.

मार्क्स तत्त्वज्ञानाचा उदय:

1942 पासून, मार्क्सने उदारमतवादी हेगेलियन अर्नोल्ड रूजसह पॅरिसमधून प्रकाशित होणारे ड्यूश-फ्राँकोइस यार बुचर (जर्मन-फ्रेंच वार्षिक मासिक) सह-संपादन करण्यास सुरुवात केली. 1843 मध्ये, त्याने त्याची मैत्रीण, जेनीशी लग्न केले आणि जर्मनीच्या दडपशाहीपासून वाचण्यासाठी आपल्या पत्नीसह पॅरिसला गेले. तेथे त्यांची भेट फ्रेंच समाजवादी आणि सहकारी देशवासी फ्रेडरिक एंगेल्स यांच्याशी झाली, ज्यांच्याशी त्यांची वैयक्तिक आणि बौद्धिक मैत्री आयुष्यभर टिकली. 1843-44 मध्ये जर्मन-फ्रेंच वार्षिक जर्नलमध्ये हेगेलच्या अधिकारांच्या तत्त्वज्ञानाच्या पुनरावलोकनासाठी दिलेल्या योगदानामुळे मार्क्सच्या तात्विक प्रवास सुरू झाला. "धर्म हे निर्दयी परिस्थितीचे हृदय आहे, आत्माहीन जगाचा आत्मा आणि पीडितांची सुटका, धर्म हा लोकांचा अफू आहे ". यामध्ये मार्क्सने तत्त्वज्ञानाच्या संकल्पना आत्मसात करण्यासाठी सर्वहारा बंड पुकारले. हा निबंध आणि इकॉनॉमिक अँड फिलॉसॉफिकल मॅन्युस्क्रिप्ट (पॅरिस मॅन्युस्क्रिप्ट), 1844 मध्ये लिहिलेले आणि जवळजवळ 100 वर्षांनंतर प्रकाशित झाले, हाच मार्क्सवादी तत्त्वज्ञानाचा पाया मानला जातो. मार्क्सच्या इथल्या वास्तव्याने जर्मन सरकारलाही धोका निर्माण झाला आणि तो ब्रुसेल्सला गेला आणि जर्मन

नागरिकत्वाचा त्याग करून आंतरराष्ट्रीय नागरिक बनला. येथे त्यांनी इतिहास आणि अर्थशास्त्राचा अभ्यास करण्यास सुरुवात केली. 1848 च्या क्रांतिकारी वातावरणाच्या पार्श्वभूमीवर त्यांनी एंगेल्ससह कम्युनिस्ट जाहीरनामा लिहिला. मार्क्स आणि एंगेल्स 1848 च्या क्रांतीमध्ये भाग घेण्यासाठी जर्मनी (कोलोन) येथे आले. क्रांती आणि प्रतिक्रांतीनंतर, मार्क्स पकडीतून सुटण्यासाठी लंडनला गेला, जिथे तो 1883 मध्ये त्याच्या मृत्यूपर्यंत गरिबीत राहिला. 1845 मध्ये, जर्मन स्कूल ऑफ थॉटमध्ये, मार्क्सने लिहिले की शासक वर्गाच्या कल्पना देखील सत्ताधारी कल्पना आहेत, ज्याला त्याने युग-चेतना म्हटले आणि त्याविरुद्ध वर्ग चेतना आवश्यक आहे यावर जोर दिला. युग चेतनेच्या प्रवाहाच्या विरुद्ध असलेले विचार लवकर पचत नाहीत. समकालीन शासक वर्ग आणि उदारमतवादी आणि अराजकतावादी विचारवंतांचा राग बनला. सर्व प्रकारच्या चुकीच्या माहिती आणि कल्पनांवर प्रश्न होते. त्याला योग्य वाटेल ते उत्तर द्यायचे, बाकीचे दुर्लक्ष करायचे. अराजकतावादी तत्त्वज्ञ जोसेफ पियरे पूधान यांनी मार्क्सच्या सर्वहारा वर्गाच्या वीरतेच्या संकल्पनेची थट्टा करत, दारिद्र्याचे तत्त्वज्ञान, हे पुस्तक लिहिले, जे नाविन्याच्या अभावी फारसा प्रभाव पाडण्यात अपयशी ठरले. मार्क्सने प्रतिक्रियेत पॉव्हर्टी ऑफ फिलॉसॉफी हे पुस्तक लिहिले जे यशस्वी झाले. सर्व रचना त्यांच्या स्वतःच्या परिस्थितीला संबोधित करतात, म्हणून त्या समकालिक आहेत, "आर्थिक परिस्थितीने सर्वसामान्य ग्रामीण जनतेला मजूर बनवले आहे. भांडवलशाह्या वर्चस्वामुळे प्रत्येकाच्या परिस्थिती आणि हितसंबंध समान झाले आहेत. अशाप्रकारे भांडवलशाह्या विरुद्ध अधीनतेचे समतुल्य स्थान स्वतःसाठी अर्थाने वर्ग आहे, परंतु स्वतःसाठी नाही. संघर्षाच्या ओघात हा जनसमूह संघटित होऊन स्वतःचा एक वर्ग बनतो. ज्या हितसंबंधांचे ते रक्षण करते ते वर्गहित बनतात". 'स्वतःचा वर्ग' ते 'स्वतःसाठी वर्ग' या प्रवासाचे वाहन म्हणजे वर्ग जाणीव. मार्क्सचे बाल्यावस्थेतील लोभ झाकणारे चरित्र सोडले, मार्क्स हा बौद्धिक-क्रांतिकारक नव्हता, तो क्रांतिकारी-विचारवंत होता.

मार्क्सवादः

व्यवस्था बदलण्यासाठी, तिच्या गतिशीलतेच्या नियमांची शास्त्रीय माहिती असणे आवश्यक होते. त्यासाठी मार्क्सनी द्वंद्वात्मक भौतिकवादाच्या तत्त्वज्ञानाच्या आधारे ऐतिहासिक भौतिक विज्ञानाचा शोध लावला. द्वंद्वात्मक भौतिकवाद हे मार्क्सवादाचे तत्त्वज्ञान आहे आणि ऐतिहासिक भौतिकवाद हे त्याचे शास्त्र आहे. यावर सविस्तर चर्चेला वाव नाही. पण थोडक्यात चर्चा अप्रासंगिक होणार नाही. क्वचितच, वर म्हटल्याप्रमाणे कार्ल मार्क्स आणि बुद्ध सारखे क्रांतिकारी विचारवंत विचारांचा असा युगानुयुग प्रवाह उघडतात की नवीन वादाला तोंड फुटते. मार्क्सवाद ही वैज्ञानिक तत्त्वांवर आधारित जग समजून घेण्याची आणि बदलण्याची एक गतिमान विचारधारा आहे. मार्क्सला केवळ खाजगी मालकी आणि सशुल्क गुलामगिरीवर आधारित भांडवलशाहीचे राजकीय अर्थशास्त्र स्पष्ट करायचे नव्हते तर वर्ग एकतेवर आधारित सर्वहारा क्रांतीद्वारे ते बदलायचे होते. आपल्या बौद्धिक जीवनाच्या सुरुवातीलाच त्यांनी आपले विचार क्रांतिकारक घोषित केले. "तत्त्वज्ञानी जगाचे इतर मार्गांनी स्पष्टीकरण दिले आहे, परंतु ते बदलण्याची गरज आहे". मार्क्सवाद हे जगाला समजून घेण्याचे गतिमान विज्ञान आहे आणि सर्वहारा क्रांतीची विचारधारा आहे. मार्क्सवादामध्ये केवळ मार्क्स आणि एंगेल्सच्या विचारांचाच समावेश नाही, तर लेनिन, माओ, ग्रामसी, चे इ. सारख्या प्रमुख मार्क्सवाद्यांचाही समावेश आहे. लेनिनने राज्याची मार्क्सवादी व्याख्या तर दिलीच शिवाय सर्वहारा वर्गाच्या हुकूमशाहीचा देशव्यापी वापर करताना लोकशाही केंद्रियतेचे तत्त्वही दिले. माओने अविकसित भांडवलशाही देशात शेतकरी क्रांती आणि औद्योगिक आणि कृषी कम्युनच्या निर्मितीचे तत्त्व मांडले. ग्रामस्कीने सांस्कृतिक वर्चस्वासह अनेक नवीन आयाम जोडले. येथे तपशिलात जाण्यास वाव नाही, त्यांचा उल्लेख करण्याचा उद्देश हा आहे की मार्क्सवाद हे देशाच्या काळाला साजेसे गतिमान शास्त्र आहे. एंगेल्सने 1891 मध्ये लिहिले होते की मार्क्सवादी हा असा नाही जो मार्क्स किंवा त्याच्या कृतींचे अवतरण करत राहतो,

तर जो काही विशिष्ट परिस्थितीत मार्क्सच्या प्रमाणेच प्रतिसाद देतो. भारतीय कम्युनिस्ट पक्षाने मार्क्सवादाला त्याची परिस्थिती विज्ञान म्हणून समजून घेण्याऐवजी एक मॉडेल म्हणून स्वीकारले, 1917 मध्ये संपूर्ण जग मार्क्सवादी आणि अँटी-मार्क्सवादी अशा दोन छावण्यांमध्ये विभागले गेले. मार्क्सच्या मृत्यूनंतर, 1889 मध्ये स्थापन झालेल्या द्वितीय आंतरराष्ट्रीयच्या जवळजवळ सर्व घटकांनी मार्क्सवादाला त्यांचा वैचारिक स्रोत मानले, जसे की भारतातील डझनहून अधिक कम्युनिस्ट पक्ष करतात. एंगेल्सने मार्क्सच्या अंत्यसंस्काराच्या भाषणात सांगितले की जसे डार्विनने जीवनाच्या उत्क्रांतीचे नियम स्पष्ट केले त्याचप्रमाणे मार्क्सने इतिहासाचे नियम स्पष्ट केले. म्हणूनच, मार्क्सवाद हे एक विज्ञान आहे आणि मार्क्सने विज्ञानाला गतिमान मानले, म्हणूनच ती स्थिर श्रद्धा नसून एक गतिमान कल्पना आहे, ज्याची बौद्धिक संसाधने केवळ मार्क्स आणि एंगेल्सच्या कार्यांच्या संग्रहापुरती मर्यादित नाहीत. ज्ञानाप्रमाणेच विज्ञान ही सुद्धा एक निरंतर प्रक्रिया आहे.

समारोप:

भारतातील मार्क्सवादाने, येथील विशिष्ट परिस्थितीचा योग्य अर्थ लावण्याचा प्रयत्न केला नाही किंवा त्याची अंमलबजावणीही केली नाही. ताश्कंदमध्ये यमयन रॉय यांच्या कम्युनिस्ट पार्टी ऑफ भकटच्या स्थापनेपासून ही प्रक्रिया सुरू झाली. आचार्य नरेंद्र देव हे एकमेव समाजवादी होते ज्यांनी बौद्ध क्रांतीच्या संदर्भात मार्क्सवादाचा भारतीय परिस्थितीनुसार अर्थ लावला. भारतीय कम्युनिस्ट पक्षांच्या इतिहासावर चर्चा करण्यास वाव नाही. वर नमूद केल्याप्रमाणे, मार्क्स लिहित असताना, पुनर्जागरण आणि प्रबोधन क्रांतीमुळे युरोपमधील जन्मजात सामाजिक विभाजने संपली होती. म्हणूनच तो लिहितो की भांडवलशाहीने सामाजिक वर्गांची विभागणी सुलभ केली आहे, समाजाला भांडवलदार आणि सर्वहारा यांच्यातील परस्पर शिविरांमध्ये विभागले आहे. येथे जन्मजात सामाजिक विभागणी अजूनही सुरू नाही, परंतु जातीवर आधारित जातिवाद हा सामाजिक जाणिवेच्या लोकशाहीकरणाच्या मार्गात एक मोठा अडथळा आहे. आंबेडकरांनी सामाजिक क्रांतीचा म्हणजेच जातीवादाच्या अंताचा मुद्दा मांडला. 1938 मध्ये, स्वतंत्र मजूर पक्षाच्या परिषदेत, त्यांनी सांगितले की त्यांचे आणि कम्युनिस्ट पक्षाचे विचार खूप जवळचे आहेत. भारतातील कम्युनिस्ट चळवळीचे तीन मुद्दे होते: सामाजिक क्रांती, वसाहतविरोधी चळवळ आणि समाजवादी चळवळीच्या सामाजिक चेतनेचे लोकशाहीकरण, म्हणजेच वर्गीय चेतनेच्या प्रसाराद्वारे क्रांतिकारी परिस्थितीची निर्मिती. लेनिन त्यांच्या मताशी सहमत नव्हते आणि त्यांनी स्वतःची ओळख कायम ठेवत चळवळीतील सहभागाचा प्रबंध मांडला. आंबेडकरांनी सामाजिक क्रांतीचा मुद्दा मांडला म्हणजेच जातीवाद संपवण्याची चळवळ केली. आज आंबेडकरवाद आणि मार्क्सवादाचा कृत्रिम विरोधाभास नव-ब्राह्मणवादाच्या रूपात ब्राह्मणवादाला पूरक म्हणून सामाजिक जाणिवेच्या लोकशाहीकरणाच्या मार्गात अडथळा बनला आहे. आता सामाजिक न्याय आणि आर्थिक न्यायासाठी स्वतंत्र संघर्ष करण्याची वेळ नाही. जेएनयू आंदोलनातून निघालेला 'जय भीम-लाल सलाम'चा नारा हा दोन्ही क्रांतीच्या प्रतीकात्मक एकतेचा नारा आहे. पंजाबमधील दलितांची जमीन चळवळ आणि सामूहिक शेती हा या प्रतीकात्मक ऐक्याचा प्रयत्न आहे. मार्क्सवादी तत्त्वांवर क्रांती केल्याशिवाय जातीवाद नाहीसा होऊ शकत नाही आणि जातिवाद नाहीसा केल्याशिवाय मार्क्सवादी तत्त्वांवर सर्वहारा एकतेच्या आधारे सर्वहारा क्रांती होऊ शकत नाही. आज भारतातील सर्वहारा क्रांतीसाठी आवश्यक क्रांतिकारी परिस्थिती निर्माण करण्यासाठी म्हणजेच सामाजिक जाणिवेचे लोकशाहीकरण करण्यासाठी, जातिवाद निर्मूलन आणि आर्थिक द्वंद्वात्मक ऐक्य या चळवळीच्या सिद्धांत आणि आचरणाची गरज आहे. भगतसिंगांच्या शब्दात सांगायचे तर वर्गजाणिवेतूनच जातीवाद संपुष्टात येतो.

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डॉ. बाबासाहेब आंबेडकर यांचे स्त्री सुधारणा विषयक कार्य

डॉ. अनिल बळीराम बांगर

मराठी विभाग प्रमुख,
को.ए.सो.लक्ष्मी-शालिनी महिला महाविद्यालय-पेझारी,
ता.अलिबाग जि.रायगड.

प्रास्ताविक:

आधुनिक भारतीय विचारांच्या जडणघडणीत डॉ.बाबासाहेब आंबेडकरांचा वाटा मोठा आणि महत्त्वपूर्ण आहे.देशातील ७० लाखाहून अधिक दलिताना समान मानवी प्रतिष्ठा मिळाली पाहिजे हा आग्रह त्यांच्या व्यक्तित्वाहून मूर्तिमंतपणे साकार झाला. त्यांच्यापूर्वी याच प्रकारचा आग्रह म.ज्योतिराव फुले यांच्या विचारातूनही आला होता. परंतु डॉ.आंबेडकर यांचे वैशिष्ट्ये असे की, त्यांनी हिंदू सामाजिक श्रेणीतील सर्वात कनिष्ठ अशा एका स्तरावर आपले लक्ष केंद्रित केले आणि त्यांच्या हक्कासाठी प्रस्थापितांविरुद्ध सर्वच पातळ्यांवर लढा दिला. अर्थशास्त्र,समाजशास्त्र, इतिहास या विषयांचा त्यांचा व्यासंग दांडगा होता. तसेच एक श्रेष्ठ न्यायपंडित, कुशल कायदेपंडित आणि धडाडीचे व बुद्धिमान राजकीय नेते म्हणूनही त्यांचा समाजामध्ये लौकिक होता. ते चांगले घटनातज्ज्ञही होते. या संदर्भातील त्यांच्या कुशाग्र बुद्धीची छाप भारतीय घटनेत आपणाला स्पष्टपणे जाणवते.

एकोणिसाव्या शतकातील भारतीय समाजाला परिवर्तनाचा मार्ग दाखविणारे व स्त्रियांची प्रगती हीच समाजाच्या प्रगतीचे मोजमाप आहे असे डॉ. बाबासाहेब आंबेडकरांनी सांगितले. खऱ्या अर्थाने हे स्त्रियांचे उद्धारकर्ते होते. भारतीय महिलांना आर्थिक व सामाजिक स्वातंत्र्याचा हक्क, वारसा हक्क, घटस्फोटाचा हक्क, पोटगी मागण्याचा हक्क, मतदानाचा हक्क, मातृत्व लाभ हक्क, महिला कामगारांना पगारी रजा हक्क यासारखे हक्क मिळावेत यासाठी डॉ.बाबासाहेब आंबेडकरांनी संविधानामध्ये विविध तरतुदी केलेल्या आहेत. स्त्री शिकली तर संपूर्ण कुटुंबाची प्रगती होते म्हणून डॉ. बाबासाहेब आंबेडकर स्त्रियांनी शिक्षण घ्यावे याबाबतीत सतत प्रयत्नशील होते.

एकोणिसाव्या शतकाकाच्या आरंभीचे स्त्रीजीवन हे जीवन नसून फक्त जगणे होते. बाल विवाह, सती प्रथा विधवा विवाह, केशवपण, बहुपत्नीत्व, शिक्षणावरील निर्बंध इत्यादी प्रथांमुळे भारतीय स्त्रीचे जगणे विदारक झाले होते. या जवळपास निम्मी लोकसंख्या मौन धारण करून होती. परंतु याच काळात अनेक समाजसुधारक पुढे आले आणि त्यांनी समाजजीवन ढवळून काढले. त्यात डॉ. बाबासाहेब आंबेडकरांचे नाव आपणास अग्रक्रमाने घ्यावे लागेल. डॉ. बाबासाहेब आंबेडकरांच्यामते “भारतीय स्त्री ही समाजाची आधारशिला आहे” म्हणून बुद्धापासून सुरू झालेला स्त्रीमुक्तीचा लढा म. ज्योतिबा फुले नंतर डॉ. बाबासाहेब आंबेडकरांनी गतिमान केला.

एकोणिसाव्या शतकातील स्त्रियांची स्थिती:

भारतातील समाज वर्णव्यवस्थेमुळे पोखरलेला तर होताच त्याच बरोबर उच्चवर्णीय स्त्रिया सुद्धा परंपरेच्या बंधनात अडकलेल्या होत्या. लहान वयात पित्याच्या, तरुणपणी, पतीच्या आणि वृद्धापकाळी मुलाच्या आधाराने तिला जगावे लागे.यासाठी धर्मशास्त्राचा आधार मानला जात होता. स्त्रियांची अवस्था

त्यापेक्षा वेगळी नव्हती पित्याच्या मालमत्तेत तिला कसलाच हिस्सा नव्हता. यावेळी डॉ. बाबासाहेब आंबेडकरांनी प्रगतीशील विचार मांडले. आणि स्त्री दास्याचा व अस्पृश्यतेचा पुरस्कार करणाऱ्या मनुस्मृतीचे २५ डिसेंबर १९२७ रोजी दहन केले. खऱ्या अर्थाने इथूनच स्त्रीमुक्तीच्या पर्वाची सुरुवात झाली. पुरुषाबरोबर स्त्रियांना समान हक्क, न्याय प्रतिष्ठा प्राप्त झाली पाहिजे, हा महत्त्वाचा विचार त्यांनी मांडला. 'निरक्षरता हा स्त्री शिक्षणातील सर्वात मोठा अडसर आहे'. असे डॉ. बाबासाहेब आंबेडकरांचे मत होते.

स्त्रीशिक्षणास प्राधान्य :-

महात्मा ज्योतिराव फुले यांना आदर्श मानणाऱ्या डॉ. बाबासाहेब आंबेडकरांनी स्त्री शिक्षणावर अधिक भर दिला. कारण एक पुरुष शिकला तर फक्त ती एकच व्यक्ती सुधारते परंतु जर का एक स्त्री शिकली तर संपूर्ण कुटुंब सुधारते, कुटुंबातून समाज आणि या समाजातून राष्ट्र सुधारेल हा दृष्टिकोन समोर ठेवूनच डॉ. बाबासाहेब आंबेडकरांनी मिलिंद महाविद्यालयाची स्थापना केली. या महाविद्यालयात जास्त मुलींना प्राधान्य दिले. मुलींसाठी बस सेवा उपलब्ध करून दिली. या शैक्षणिक कार्याचा परिणाम म्हणूनच जाईबाई चौधरी या स्त्रीने १९२५ मध्ये संत चोखामेळा ही मुलींची शाळा सुरू केली. तर अंजनाबाई देशभ्रतार यांनी आपल्या पतीसोबत मुलींच्या वस्तीगृहाची धुरा सांभाळली. तसेच शांताबाई दानी यांनी प्रत्यक्ष राजकारणात भाग घेऊन स्त्रीशिक्षणाला गतिमान केले.

देशाच्या प्रगतीला अडसर ठरणाऱ्या लोकसंख्येला आळा बसावा स्त्रियांना कुटुंबात व समाजात मानाचे स्थान मिळावे ती घरात आनंदी व निरोगी, तिचे दौर्बल्य नष्ट व्हावे हे सांगणारे डॉ.बाबासाहेब आंबेडकर खऱ्या अर्थाने स्त्री मुक्ती चळवळीचे प्रेरकशक्ती ठरतात. डॉ.बाबासाहेब आंबेडकरांनी स्त्रियांना शिकवा चेतवा संघर्ष करा हा कानमंत्र दिला. डॉ.बाबासाहेब आंबेडकर स्त्रियांना त्यांच्या सामर्थ्याची जाणीव करून देण्याबरोबरच त्यांना सन्मान शील यांचे महत्त्वही पटवून देतात.

भारतीय स्त्री ही कणखर आहे. कोणत्याही कामात पुरुषांच्या बरोबरीने ती काम करू शकते. परंपरेच्या नावाखाली तिला चिरडले गेले. तिचे शारीरिक, मानसिक शोषण, तिची पिळवणूक केली गेली. प्रत्येक क्षेत्रात तिला डावलले गेले. केवळ स्त्री म्हणून तिला नाकारले जात होते. अशा या स्त्रीजातीला न्याय मिळावा, त्यांचे हक्क त्यांना मिळावेत, त्यांची होणारी शारीरिक व मानसिक पिळवणूक थांबावी. यासाठी डॉ. बाबासाहेब आंबेडकरांनी संसदेत हिंदू कोड बिल मांडले. यामध्ये स्त्रियांना पुरुषांच्या बरोबरीने सर्व क्षेत्रात समान हक्क मिळावा, वडीलोपार्जित मालमत्तेत मुला-मुलींना समान हक्क मिळावा. त्याचबरोबरच स्त्रियांना मतदानाचा अधिकार मिळावा, नोकरी करणाऱ्या स्त्रियांसाठी प्रसूती रजा मिळावी असे अनेक मुद्दे या 'हिंदू कोड बिलात' दिले आहेत. स्त्रियांच्या हक्कासाठी होणाऱ्या अन्यायाला वाचा फोडण्यासाठी तसेच त्यांचे शोषण होऊ नये म्हणून डॉ. बाबासाहेब आंबेडकर यांनी पुढाकार घेतला होता. भारताच्या भावी राज्यघटनेत स्त्रियांचे मूलभूत हक्क यामध्ये कोणत्या गोष्टीचा समावेश करण्यात आला होता. याची माहिती आपणाला 'जनता, पाक्षिकात बघायला मिळते.पंजाबच्या श्रीमती सरलादेवी चौधरी आणि यांच्या अध्यक्षतेखाली 'अखिल बंगाल स्त्री परिषद'कलकत्ता येथे भरवण्यात आली होती. आणि त्यात हा ठराव पास करण्यात आला. या ठरावात समावेश केलेल्या स्त्रियांच्या हक्कांच्या गोष्टी कोणत्या आहेत ते पुढीलप्रमाणे.

स्त्रीवर्गाचे मूलभूत हक्क

- १) पती जिवंत असता त्याच्या संपत्तीवर पत्नीचा कायदेशीर अर्धा हक्क असणे व पतीच्या निधनानंतर त्याच्या मालमत्तेवर त्याच्या संतती प्रमाणे विधवेचाही कायदेशीर रित्या समान हक्क असणे.
- २) आई बापाच्या भावाच्या अगर बहिणीच्या मालमत्तेवर मुलाच्या अगर भावांच्या बरोबरीने मुलींचा अगर बहिणींचा ही समान हक्क असणे.
- ३) मुलीला वारस होण्याचा हक्क दिला.
- ४) सर्व प्रकारच्या सरकारी खात्यात व बहुमानाच्या जागेवर पुरुषाप्रमाणे स्त्रियांनाही नेमणुकीचे व निवडणुकीचे समान हक्क असणे नागरिकत्वाची हक्क जबाबदारी व निर्बंध याबाबतीतही स्त्री पुरुष हा भेद नसणे.
- ५) वेश्या व्यवसाय कुंटणखाने वगैरे अजिबात बेकायदेशीर ठरवून बंद करणे.
- ६) स्त्री मजुरांना पुरेसा पगार नियमिततास काम शीलाला अगर नीतीला जेणेकरून धक्का पोहोचणार नाही अशा प्रकारचे काम व वातावरण म्हातारपण व आजारीपणाच्या अवस्थेत संरक्षणाची योग्य तरतूद व गरोदर व बाळंतपणात पुरेशी भर पगारी रजा.
- ७) बेकार स्थितीत स्त्रियांना उद्योग धंदा देण्याची सरकारने खास काळजी घेणे व व्यवस्था करणे.
- ८) मुलांना सक्तीचे प्राथमिक शिक्षण देण्याची व्यवस्था.
- ९) स्त्रियांना उच्च शिक्षण देण्याची खास सोय करणे.
- १०) ज्या शिक्षण संस्था तून मुला-मुलींना शिक्षण एकत्र देण्यात येत असे त्या संस्थातून व त्यांच्या कार्यकारी मंडळ आतून श्री शिक्षकांची व सभासदांची ठराविक प्रमाणात भरणा करण्याची कायदेशीर योजना असणे.
- ११) स्त्रियांना मतदानाचा सार्वत्रिक हक्क असणे.

अशाप्रकारे स्त्रियांच्या हक्क व संरक्षणासाठीचे ठराव पास करण्यात आले होते. विविध सामाजिक, राजकीय, धार्मिक, आर्थिक, स्त्रीविषयक विषयांची माहिती देणारे तसेच भारत देशात घडणाऱ्या घडामोडी वरील विचार डॉ.बाबासाहेब आंबेडकर यांनी आपल्या 'जनता' पाक्षिकात मांडलेले आहेत.

डॉ. बाबासाहेब आंबेडकर अगदी लहान लहान गोष्टीत सुद्धा स्त्रियांच्या प्रगतीचा विचार करत असत. समाजाच्या प्रत्येक घटकातील स्त्रियांनी शिकावे उच्च वर्णीय स्त्रियांप्रमाणे विचार करावा, वागावे व दिसावे या मताचा ते पुरस्कार करीत असत. शिक्षणाची संधी सर्वांनाच असावी या सर्वसमावेशक दृष्टिकोनातूनच ते स्त्री शिक्षणाचा आग्रह धरतात. स्त्री शिक्षणामुळेच नव्या समाजाची निर्मिती होऊ शकेल यावर डॉ. बाबासाहेब आंबेडकरांचा विश्वास होता. मुलांच्या शिक्षणाबरोबरच मुलींच्याही शिक्षणासाठी धडपड केल्यास आपल्या समाजाची प्रगती झपाट्याने होईल असे त्यांना वाटत असे. स्त्रियांना शिक्षण उपलब्ध करून देणे म्हणजे एक प्रकारे त्यांचा सन्मान करण्यासारखे आहे. ते म्हणतात की, "उपासमारीने शरीराचे पोषण कमी झाल्यास माणूस हतबल होऊन तो अल्पायुषी होतो. तसेच शिक्षणाच्या अभावी तो निर्बुद्ध राहिल्यास जिवंतपणे तो दुसऱ्याचा गुलाम होतो". त्यामुळेच त्यांनी गुलामीतून स्त्रियांची मुक्तता करण्यासाठी स्त्रीशिक्षणाची आवश्यकता प्रतिपादन केली.

स्त्रियांचे जीवन फक्त घरापुरतेच मर्यादित नसावे त्या कौटुंबिक व्यवस्थेला सुयोग्य संस्कार देऊन नीट वळण लावू शकतात. म्हणून स्त्रियांना शिक्षण द्यावयास हवे असे डॉ.बाबासाहेब आंबेडकर यांचे मत होते. मूलतः स्त्रियांविषयी त्यांचा दृष्टिकोन उदारमतवादी होता. शिक्षणामुळे स्त्रियांचे बौद्धिक गुण विकसित होतील

त्याकरिता स्त्रियांमध्ये शिक्षणाबाबत जागृती घडवावी असे ते आग्रहाने सांगतात. स्त्रियांनी वस्त्रे ,प्रावरणे व आभूषणे यापेक्षा शिक्षण व कलागुणांचा विकास करण्याकडे अधिक लक्ष द्यावे असे त्यांचे मत होते. भारतीय राज्यघटनेचे महत्त्वाचे काम सुद्धा समितीचे अध्यक्ष म्हणून त्यांनी केले. राज्यघटनेची एकूणच बांधणी ही स्वातंत्र्य, समता, बंधुता आणि न्याय या मूलतत्त्वावर आधारित आहे.

भारतीय राज्यघटनेने कायद्यापुढे स्त्री आणि पुरुष या सर्वांना समान संधी दिलेली आहे. घटनेच्या १५.३ कलमात स्त्रिया व बालके यांच्याकरिता विशेष तरतुद करण्यात आली आहे. याद्वारे स्त्रियांना मिळालेल्या समान संधीमुळे व अर्थार्जनामुळे स्वावलंबन येऊन स्त्रियांचे सक्षमीकरण घडून येईल असे आंबेडकरांचे मत होते. घटनेच्या ३९ व ४२ व्या कलमाने स्त्रियांना मानसिक, आर्थिक, शारीरिक विकासाची तरतुद करण्यात आली. कुटुंब नियोजनाच्या बाबतीत स्त्रियांचे आरोग्य व कुटुंबाचे योग्य नियोजन स्त्रियांशीच संबंधित असावे असे त्यांचे मत होते. भारतीय संविधानात स्त्रियांच्या सर्वांगीण विकासासाठी करण्यात आलेल्या विविध तरतुदी यातूनच डॉ.आंबेडकरांच्या स्त्रीविषयक उदारमतवादी व सुधारणावादी दृष्टिकोनाचा प्रत्यय येतो.

समारोप:

अशाप्रकारे डॉ.बाबासाहेब आंबेडकर यांनी स्त्रियांच्या शिक्षणावर अधिक भर दिला होता. डॉ.बाबासाहेब आंबेडकरांचे विचार सर्व जाती धर्मातील वर्गातील महिलांच्या प्रगतीतील व न्याय हक्काच्या मार्गातील अडथळे दूर करण्याचा प्रयत्न होता. त्यांनी लिंग, समानता, शिक्षण व स्वातंत्र्याची गरज यावर भर दिला. शिवाय महिलांना हितकारक अशा कायदेशीर तरतुदी करून त्यांना गुलामगिरीतून मुक्त करण्याचा त्यांचा प्रयत्न होता. महिलांना समान वागणूक आणि समान प्रतिष्ठा दिली तरच खऱ्या अर्थाने सर्व समाजाची प्रगती होईल आणि त्यासाठी 'शिका संघटित व्हा आणि संघर्ष करा' असा मूलमंत्र त्यांनी समाज आणि राष्ट्रहितासाठी दिला होता.

संदर्भ ग्रंथ सूची :

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चंद्रपूर जिल्ह्यातील आदिवासी शेतकऱ्यांच्या आर्थिक समस्या

हरिष एम. बावनगडे
संशोधक

प्रस्तावना –

जगात सर्व देशात निरनिराळ्या प्रदेशात आदिवासी समुहाची वस्ती आहे. विशेषतः आशिया, आफ्रिका आणि अमेरिका ह्या खंडातील देशात आजही आदिवासी जमात मोठ्या प्रमाणात आढळते. परंतू आधुनिक काळातही प्राथमिक अवस्थेतील जीवन जगणाऱ्या रहिवाशांचे प्रमाण जितके आफ्रिका खंडात आहे, तितके अन्यत्र कोठेही नाही. ह्या जमातीला काही विचारवंतांनी, अभ्यासकांनी व सामाजिक कार्यकर्त्यांनी विविध नावे दिली आहेत. या लोकांना अगदी प्राचिण किंवा अगदी मुळचे आदिवासी म्हटले जाते.

1962 मध्ये शिलांग येथे भरलेल्या आदिवासी परिषदेत 'आदिवासी' या शब्दांची व्याख्या करण्यात आली.

व्याख्या -

“एका समान भाषेचा वापर करणाऱ्या एकाच पूर्वजापासून उत्पत्ती सांगणारा. एका विशिष्ट भूप्रदेशावर वास्तव करणाऱ्या तंत्र शास्त्रीय दृष्टीने मागासलेला, अक्षर ओळख नसलेला व रक्त संबंधावर आधारित सामाजिक व राजकीय रितीरिवाजांचे प्रामाणीकपणे चलन करणाऱ्या एकजिन्सी गटाला आदिवासी समाज असे म्हणतात.

महाराष्ट्रातील एकूण लोकसंख्या आदिवासी लोकसंख्या

अ.क्र.	जनगणना वर्ष	राज्याची एकूण लोकसंख्या	आदिवासी लोकसंख्या
1	1971	504.12	38.41
2	1981	627.84	57.12
3	1991	789.37	73.18
4	2001	968.79	85.77
5	2011	987.80	87.68

जिल्हा निहाय लोकसंख्या अमरावती विभाग

अ.क्र.	जिल्ह्याचे नाव	लोकसंख्या (लाखात)	प्रमाण
1	वर्धा	1237	11.45
2	नागपूर	4068	10.91
3	भंडारा	1136	8.60
4	गोंदिया	1201	16.32
5	चंद्रपूर	2071	18.11
6	गडचिरोली	970	38.35

आदिवासींच्या शेती विकासासाठी आवश्यक तत्वे -

1. चंद्रपूर जिल्ह्यातील आदिवासींचे कृषी हे अल्पकृषी भुधारक आहेत. त्यामुळे ह्या भुधारकांनी विकास योजनेची तत्वे स्विकारली पाहिजे.

2. शेती सुधारण्याच्या कार्यक्रमात जलसिंचनाला अग्रक्रम देणे आवश्यक आहे. त्यासाठी शासनाने सिंचनाची साधने आदिवासी भुधारकांना उपलब्ध करून देणे आवश्यक आहे.
3. कमी दर्जाची शेती असल्यामुळे आदिवासी आपल्या कृषीमध्ये सोयाबीन मूग, धान, यासारखे हलके धान्य विकवित असून अधिक धान्य पिकविण्याच्या दृष्टीने संशोधन करून हलक्या प्रतिच्या धान्याच्या संकरित जाती उत्पादन करणे आवश्यक आहे.
4. आदिवासी शेती सुधारणेची प्रक्रिया ही सतत चालणारी आहे. याकरिता तरुण व सुशिक्षित बेरोजगारांना शेती संबंधी प्रशिक्षण देणे गरजेचे आहे.
5. आदिवासींच्या आर्थिक समस्येमध्ये बेकारी दिवसेंदिवस वाढत आहे. त्यावर मात करण्यासाठी शेतीत भरपूर उत्पन्न काढण्याच्या दृष्टीने यंत्र सामुग्री व अनुदानाची व्यवस्था केल्यास शेती विकास व आर्थिक विकास लवकर होऊ शकतो.

संशोधनाची उद्दीष्टे -

1. उत्पन्न कमी असण्याची कारणे.
2. आर्थिक समस्यांची कारणे

भुधारक -

2011 च्या कृषी गणनेच्या माहितीनुसार जिल्ह्यात एकूण 304227 भुधारक असून त्यांच्या जवळील एकूण शेत जमिन 540914.6 हेक्टर आहे. यापैकी 2.7 टक्के धारण क्षेत्र (0.5) हेक्टर खाली 8.9 टक्के धारण क्षेत्र (0.5 ते 1) हेक्टर खाली 25.7 टक्के धारण क्षेत्र (1 ते 2) हेक्टर खाली 42.7 टक्के धारण क्षेत्र (2 ते 5) हेक्टर खाली 16.1 टक्के धारण क्षेत्र (5 ते 10) हेक्टरखाली 3.1 टक्के धारण क्षेत्र (10 ते 20) हेक्टरखाली तर 20 टक्के व त्यापेक्षा अधिक धारण क्षेत्र 0.8 टक्के आहे.

पीक पद्धती -

2011-12 मध्ये एकूण पिकाखाली असणाऱ्या 520877 हेक्टर क्षेत्रापैकी अन्नधान्य पिकाखाली 251775 हेक्टर म्हणजे एकूण पिकाखालील क्षेत्राच्या 48.3 टक्के आहे. धान्य पिकापैकी सर्वात जास्त क्षेत्र तांदुळ या पिकाखाली क्षेत्राच्या 31.9 टक्के आहे.

रासायनिक खताचे वाटप -

चंद्रपूर जिल्ह्यात 120888 मे. टन रासायनिक खताचे वाटप करण्यात येते.

वनक्षेत्र -

जिल्ह्यात वनक्षेत्र 3600.6 चौ. की. मी. क्षेत्र असून जिल्ह्याच्या क्षेत्राकाळाशी त्यांचे प्रमाण 31.05 टक्के इतके आहे.

साक्षरता -

2011 च्या जनगणनेनुसार एकूण लोकसंख्या 80.00 टक्के लोकसंख्या साक्षर असून ग्रामीण भागातील साक्षरतेचे प्रमाण 25.5 टक्के तर नागरी भागातील 88.2 टक्के आहे. पुरुष व स्त्रिया साक्षरतेची टक्केवारी अनुक्रमे 86.8 टक्के आणि 73.0 टक्के आहे.

पाणी पुरवठा -

जिल्ह्यात मोठे तलाव नाहीत अने मध्यम तलाव आहेत.

जमिनीचा प्रकार -

जिल्ह्यात जमिनीचे विविध प्रकार असून ती काळी रेंताळ बरजी आणि पांढरी आहे.

चंद्रपूर जिल्ह्यातील आदिवासी शेतकऱ्यांच्या समस्या -

1. साक्षरतेचे प्रमाण कमी
2. व्यसनाधिनतेचे प्रमाण जास्त
3. शेतीला पाणीपुरवठ्याचे प्रमाण कमी
4. शेतीचा आकार कमी
5. मजूरांचा प्रश्न
6. रासायनिक खताचे बियाने व किटक नाशकांचा किंमती
7. दळणवळणाच्या सोयीचा अभाव
8. वन्य जीवापासून नुकसान
9. हलक्या दर्जाच्या शेती

ह्या सर्व समस्या असल्यामुळे चंद्रपूर जिल्ह्यातील आदिवासी शेतकरी आपला विकास व जिवनमान उंचावू शकत नसल्यामुळे त्यांना विविध प्रकारच्या समस्यांना तोंड द्यावे लागते.

निष्कर्ष -

या सर्व अभ्यासावरून असे लक्षात येते की, चंद्रपूर जिल्ह्यातील आदिवासी शेतकरी आजही आर्थिक समस्यांचा सामना करतांनी दिसतो आहे. म्हणून आदिवासी शेतकरी आपल्या परिवारांचा विकास करण्यास सक्षम नाही. म्हणून आदिवासी शेतकरी दारिद्र्यात जीवन जगतांनी दिसतो आहे. अशा विविध आर्थिक समस्या आहेत.

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सामाजिक स्थित्यंतर आणि दलित कादंबरी

डॉ. राजेंद्र करनकाळ

मराठी विभाग प्रमुख,

ज.ए.इ चे महिला महाविद्यालय, डोंबिवली

कोणत्याही स्वरूपाच्या वाङ्मय निर्मितीवर तत्कालीन काळातील सामाजिक स्थित्यंतराचे प्रतिबिंब उमटलेले असते. सामाजिक स्थित्यंतराला राजकीय, सामाजिक व सांस्कृतिक घडामोडी तसेच चळवळी कारणीभूत ठरतात. या घडामोडीतूनच लेखक आशय द्रव्य निवडतो व साहित्यकृतीला आकार देतो. समाजाच्या स्थित्यंतराचे स्पंदन साहित्यकृतीतून अभिव्यक्त करणे हे लेखकाच्या सामाजिक संवेदनशीलता व जीवन विषयक धारणेवर अवलंबून असते. बदलत्या काळानुसार सामाजिक स्थित्यंतरे घडत असली तरी संकुचित जीवनदृष्टीमुळे काही साहित्यिकांना ती लेखनात पकडता येत नाही. 1960 पूर्वीच्या मराठी वाङ्मयात व्यापक जीवनदृष्टी अभावी सामाजिक स्थित्यंतराचे चित्रण फारसे आले नाही. महात्मा फुले यांची शुद्रा- ति -शूद्रांच्या उद्धाराची चळवळ, आगरकरांचा सुधारणावाद, डॉ. बाबासाहेब आंबेडकर यांची दलित उद्धाराची स्वाभिमान व संघर्षाची चळवळ तसेच आधुनिक भारताच्या नवनिर्माणासाठी केलेली त्यांनी भारतीय राज्यघटनेची निर्मिती व राष्ट्रीय कार्य तसेच छत्रपती शाहू महाराजांची ब्राह्मणेतर चळवळ ,कर्मवीर भाऊराव पाटील, वि.रा. शिंदे, महर्षी धोंडो केशव कर्वे यांचे शैक्षणिक व सामाजिक कार्य यामुळे महाराष्ट्रातील समाज जीवन ढवळून निघाले. स्त्री शिक्षण, विधवा पुनर्विवाह ,अस्पृश्यता निवारण्याचे प्रयत्न, दलित व स्त्री वर्गासंदर्भात उच्च वर्णियांचे होत असलेले मानसिक परिवर्तन, नव्या जुन्या पिढीतील सांस्कृतिक संघर्ष, दलितांनी गावकीची कामे सोडून शिक्षणाची धरलेली कास, राहणीमानातील बदल, सवर्णांनी टाकलेला बहिष्कार ,दलितांची झालेली कोंडी व त्याविरुद्धचा संघर्ष ,आदिवासी ,भटके पददलित यांचे प्रश्न, पंचायत व सोसायट्यांमधील निवडणुका, दलितांचा सक्रिय सहभाग ,लोकशाही मूल्यांचा स्वीकार इत्यादी अनेक बाबतीत सामाजिक स्थित्यंतर झाले परंतु उच्चवर्णीय लेखकांच्या मर्यादित जीवनदृष्टीमुळे १९६०पूर्वीच्या मराठी वाङ्मयात सामाजिक स्थित्यंतराचे चित्रण फारसे वास्तववादी व प्रभावीपणे आले नाही ही सत्यता नाकारता येत नाही.

१९६० पासून दलित साहित्याचा परिवर्तनवादी प्रवाह मराठी साहित्यात सशक्तपणे सुरू झाला. कविता ,आत्मकथन, नाटक व कादंबरी या वाङ्मय प्रकारात दलित साहित्यिकांनी आपले अनुभव प्रांजळपणे व जबरदस्त ताकदीने अभिव्यक्त केले मात्र कादंबरी सारख्या बहुआयामी व्यामिश्र स्वरूपाचा चिंतनात्मक साहित्यप्रकार दलित लेखकांनी फारसा प्रभावीपणे हाताळला नाही. दलित कादंबरीचा प्रवाह क्षीण स्वरूपाचा असला तरी सामाजिक स्थित्यंतराचा विचार करता हे आव्हान दलित कादंबरीने समर्थपणे पेलले आहे यात शंका नाही. काही ठळक प्रातिनिधीक दलित कादंबरीचा सामाजिक स्थित्यंतराच्या संदर्भात प्रस्तुत निबंधात विचार करण्यात आलेला आहे १९२० मध्ये टिळक युगाचा अस्त झाला आणि महाराष्ट्राच्या व एकूणच भारतीय सामाजिक व राजकीय पटावर महात्मा गांधी आणि डॉक्टर बाबासाहेब आंबेडकरांचा उदय झाला. महात्मा गांधींची स्वातंत्र्याची चळवळ, रामराज्य कल्पना, स्वावलंबन, हृदय परिवर्तन व अहिंसा यासारख्या तत्त्वज्ञानातून शहरी मध्यमवर्गीय उच्चवर्गीय लेखकांची जीवनदृष्टी ग्रामीण जीवनाकडे वळली व त्यांच्या दृष्टीतून ग्रामीण जीवनातील सामाजिक स्थित्यंतर साहित्यात रेखाटले. डॉ. बाबासाहेब आंबेडकरांची प्रेरणा, त्यांनी केलेले समाज जागृतीचे कार्य यामुळे दलित समाज जागरूक होऊ लागला गुलामाला गुलामीची जाणीव झाली

.वर्णव्यवस्थेविरुद्धच्या लढ्यात डॉ. बाबासाहेब आंबेडकरांनी आपल्या समाजाला सहभागी करून घेतले. महाडचा चवदार तळ्याचा सत्याग्रह, काळाराम मंदिर सत्याग्रह ,गोलमेज परिषदेत अस्पृश्यांची मांडलेली कैफियत, पुणे करार , भारतीय राज्यघटनेची निर्मिती व बौद्ध धम्माचा स्वीकार या कृतिशील कार्यातून तसेच मूकनायक, बहिष्कृत भारत, जनता या वृत्तपत्रातून व भाषणातून केलेले प्रबोधन व जागृती, पिपल्स एज्युकेशन सोसायटीची स्थापना इत्यादी चळवळी व कार्यांमुळे दलित समाजात क्रांतिकारक परिवर्तन घडवून आले .या परिवर्तनामुळे सामाजिक स्थित्यंतरे होत राहिले शिक्षण व नोकऱ्यात सहभाग, संघटन ,नेतृत्व गुण अन्याय अत्याचाराच्या विरोधात लढण्याची उर्मी ,गावकीच्या कामाचा त्याग, प्रतिष्ठीत राहणीमान ,स्वाभिमानाची जाणीव, उच्च वर्णियांचा बहिष्कार ,त्यातून दलितांची झालेली कोंडी ,नामांतराची चळवळ, दलित पॅंथरचा उदय, लॉग मार्च, रिडल्स प्रकरण इत्यादी चळवळीमुळे स्थित्यंतर घडून आले त्याचे चित्रण दलित कादंबरीमध्ये आले आहे .

फकीरा या कादंबरीत अण्णाभाऊ साठे यांनी मांग समाजातील फकीरा राणोजी, सत्तू व सावळा या लढाऊ सत् प्रवृत्त पात्रांची निर्मिती केली आहे, फकीरा ब्रिटिशांच्या हजेरीचे जोखड झुगारून देतो, ब्रिटिशांचा खजिना लुटतो तसेच ब्रिटिशांना मदत करणाऱ्या चौघुल्याची खांडोळी करतो. स्वातंत्र्यलढाण्यात तंट्या भिल्ल,उमाजी नाईक यासारख्या दलित उपेक्षित क्रांतिकारकांनी दऱ्याखोऱ्यातून ब्रिटिशांना जेरीस आणले. फकीरा व त्याचे साथीदार ब्रिटिशांविरुद्ध बंड करतात, अण्णाभाऊ साठेंनी फकीराच्या चित्रणात राष्ट्रीय जाणीवा निर्माण केल्या आहेत . राणोजी मांगने जोगतीणींच्या वाढ्या पळवून गावासाठी आपल्या शिराचे बलिदान दिले.विष्णूपंत कुलकर्णी व शंकर पाटील ही सवर्ण माणसं राणोजीचे उपकार मानतात. त्याच्या कुटुंबाला मदत करतात. शिक्षण ,प्रबोधन, समाजवादी विचारसरणीचा प्रभाव व विविध सामाजिक चळवळीमुळे सवर्णांच्या मानसिकतेत परिवर्तन होत असून दलितांकडे त्यांचा पाहण्याचा दृष्टिकोन बदलत आहे .दलित- सवर्ण संघर्षाची दरी कमी होत असून ,समन्वय साधला जात आहे .या सामाजिक स्थित्यंतराचे चित्रण फकीरामध्ये प्रभावीपणे रेखाटले आहे .फकीरामध्ये दलित सवर्ण हा जातीय संघर्ष टाळून अण्णाभाऊंनी सत्य - असत्य ,न्याय -अन्याय असा मूल्यात्मक संघर्ष उभा केला आहे प्राध्यापक रा .ग .जाधव म्हणतात ?"थोर साहित्यिकांचे एक लक्षण नेहमी सांगितले जाते ते असे की मानवी जीवन विषयक कोणता तरी नैतिक मूल्यभाव तो आपल्या साहित्यातून सूचित करित असतो. अण्णाभाऊंनी दलितांच्या,भिकाऱ्यांच्या तथाकथित दरोडेखोरांच्या नि बंडखोरांच्या अर्थशून्य मानल्या गेलेल्या जीवनात माणुसकीची अर्थपूर्णता असल्याचे दाखवून दिले" रा .ग .जाधव म्हणतात त्याप्रमाणे अण्णाभाऊ साठे यांनी दलित उपेक्षित समाजातील फकीरा, राणोजी, सावळा,मुरा यासारख्या सत् प्रवृत्त पात्रातून माणुसकीचे दर्शन घडवले आहे.अण्णाभाऊंनी दलित सवर्ण -विषमतेला सामाजिक बंधुता व समतेत परावर्तित करून नवसमाज निर्मितीचा आशय सूचित केला आहे. बाबुराव बागूल यांच्या सूड व उत्तम बंडू तुपे यांच्या झुलवा या कादंबरीत धार्मिक अंधरुढीमुळे दलित स्त्रियांचे शारीरिक व मानसिक शोषण होते याचे चित्रण रेखाटले आहे .या स्त्रिया उच्च वर्गातील पुरुषांच्या अत्याचाराला बळी पडतात हा आशय सूचित केला आहे. आधुनिक काळात धार्मिक अंधरुढी, अंधश्रद्धा यांची वैज्ञानिक दृष्टीने चिकित्सा होऊ लागल्यामुळे ऐहिक जीवनाला महत्त्व प्राप्त झाले .डॉ. बाबासाहेब आंबेडकरांची माणुसकीच्या न्याय हक्काची व स्वाभिमानाची चळवळ धम्मचक्र प्रवर्तन यामुळे हिंदू धर्म व्यवस्थेतील जातीयता,मुरळी,देवदासी ,पोतराज यासारख्या अंधरुढीतून समाज मुक्त होऊ लागला अशा अंधश्रद्धेतून बाहेर

पडण्याची धडपड या सामाजिक स्थित्यंतराचे चित्रण सूड व झुलवा मध्ये वास्तवदर्शी रेखाटले आहे. जानकी ही मुरळीची मुलगी मटणाच्या उधारीवर तिला विकले जाते .मुरळीला कसली अब्रू म्हणून रस्त्यावरचे तरुणांचे टोळेके तिच्यावर अत्याचार करतात. स्त्री देहाची विटंबना झालेली जानकी, पुरुष जातीवर सूड घेण्यासाठी जानकीची ज्वालाप्रसाद होते. कादंबरीच्या पूर्वार्धात दलित स्त्रीजीवन वर्णव्यवस्था व धार्मिक अंधरुढीमुळे शोषित व अत्याचारग्रस्त आहे. हे समाजवास्तव प्रखरपणे रेखाटले आहे परंतु उत्तरार्धात वास्तवाच्या विरोधात काहीसे रंजक चित्रण आले आहे त्यामुळे सामाजिक स्थित्यंतराचे चित्रण येत नाही. पुरुषवासनेची शिकार झालेली जानकी व निर्मळ मनाचे स्त्री -पुरुष संबंधाचा स्पर्शही न झालेले स्वामी यांच्या शारीरिक मिलनातून निसर्गाचा प्राकृतिक आनंद जानकीला येतो व तिचा सूडाच्या प्रवास संपतो. हिंदू धर्मातील अध्यात्मिक वातावरण, स्वामीची व्यक्तिरेखा, संन्याशांचे वर्णन ,नाशिक ,त्र्यंबकेश्वर, हरिद्वार येथील धार्मिक स्थळांचा उल्लेख यामुळे जानकीचा ऐहिक जीवनापासून सुरु झालेला सूडाचा प्रवास स्वामीच्या सानिध्यात अध्यात्मिक वातावरणात थांबतो वास्तविक धर्मांतरामुळे दलित समाजाला एक जीवनदृष्टी मिळाली .हिंदू धर्म अंधरुढीमुळे परंपरा ,अंधश्रद्धा, दैववाद व अध्यात्मवाद यांचा बौद्ध धम्माच्या स्वीकारामुळे दलितांनी त्याग केला हे सामाजिक स्थित्यंतर कादंबरीत येत नाही, जानकीचा सुडाचा प्रवास स्वामींच्या ऐवजी बौद्ध भिखूंच्या सानिध्यात भिखूसंघ व धम्माच्या वातावरणात थांबला असता तर तो अधिक अर्थपूर्ण झाला असता या उलट उत्तम बंडू तुपे यांच्या झुलवा या कादंबरीत देवदासी या अंधरुढीमुळे जगन, रेणू व दाराशी या दलित स्त्रियांचे उच्च वर्णीयांकडून शारीरिक व मानसिक शोषण होते व त्यांच्यावर अत्याचार होतो हे समाज वास्तव रेखाटले आहे. यल्लमाचे सतपण जोगतीणींचे जीवन ,झुलवा ,कारण ,सवर्ण पुरुषांकडून होणारी फसवणूक व अत्याचार याविषयी कादंबरीतील नायिका जगन इहवादी दृष्टिकोनातून विचार करते तिला आलेले स्वत्वाचे भान व देवदासी या अंधरुढीतून स्वतःची करून घेतलेली सुटका अंधरुढीत अडकलेल्या व मुक्त हो पाहणाऱ्या दलित स्त्री जीवनातील हे स्थित्यंतर आहे. कादंबरीच्या अखेरीस जगन यल्लमा देवीचा पितळी मुखवटा नदीच्या महापुरात फेकून देवदासीच्या धार्मिक अंधरुढीतून मुक्त होते .समाज परिवर्तनाच्या याआशयामुळे दलित स्त्रियांमधील सामाजिक स्थित्यंतर उत्तम बंडू तुपे यांनी झुलवा मधून सूचित केले आहे .२"डॉक्टर मदन कुलकर्णी म्हणतात उत्तम बंडू तुपे यांच्या कादंबरीने कलात्मकतेचा बाजू सांभाळत देवदासी यांचे जीवनदर्शन घडविले आहे .देवदासींच्या जीवनात झुलवा हा निष्ठापूर्वक जीवन जगण्याचा मार्ग आहे परंतु हा झुलवा प्रत्येकाला मिळेल असे नाही म्हणूनच तर लागला तर झुलवा नाही तर कोणीही हलवा असा वाक्प्रचार देवदासी समाजात रूढ आहे. जोगतीणींच्या एका विशिष्ट अंगाला मध्यवर्ती ठेवून लिहिलेली ही कादंबरी आहे" उत्तम बंडू तुपे यांनी कलात्मकतेची बाजू सांभाळत देवदासींच्या लैंगिक शोषणाचे वास्तव जीवनदर्शन घडविले आहे. देवदासींच्या धार्मिक अंधरुढीतून जगन, येलू ,दाराशी, रेणू या स्त्रियांचे शोषण होते. देवदासींच्या कुप्रथेतून जगन सुटका करण्यासाठी धडपडते .कादंबरीच्या अखेरीस जगन ,यल्लमाचा मुखवटा नदीच्या पुराच्या प्रवाहात फेकून देते. डॉ. बाबासाहेब आंबेडकरांच्या सामाजिक वैचारिक चळवळीतून दलितांना आत्ममान आले. अंधश्रद्धा व रुढीच्या गुलामगिरीतून ते मुक्त होऊ लागले. जगनची बंडखोरी सामाजिक स्थित्यंतराचा परिपाक आहे

प्रा. केशव मेश्राम यांच्या हकीकत आणि जटायू या लघु कादंबऱ्या आहेत. हकीकत मध्ये नायक गत आयुष्यातील दारिद्र्य, अवहेलना, अपमान व आर्थिक विषमतेचे चटके अनुभवतो. मित्राच्या घरी अस्पृश्यतेची जाणीव त्याला व्यथित करते. आधुनिक काळात शिक्षणाच्या प्रसारामुळे सवर्णांचा दलितांकडे पाहण्याचा दृष्टिकोन सहानुभूती पुरताच मर्यादित आहे. जातीयतेची मानसिकता पूर्णपणे बदलली नाही हे समाजवास्तव

हकीकत मध्ये रेखाटले आहे तर जटायू ही रामायणातील प्रतीक वापरून लिहिलेली कादंबरी आहे. दुर्बलांसाठी रक्तबंबाळ होणारा जटायू या दृष्टीकोनातून अभिमान या मुलाच्या स्वाभिमानाची कथा आहे. मांग समाजाचे मागासपण, महार समाजाचा मांगाकडे पाहण्याचा तुच्चतावादी दृष्टिकोन इत्यादी चित्रणातून मागास समाजातील जाती पोट जातीतही अस्पृश्यता आहे हे सुचित होते स्वातंत्र्यप्राप्तीनंतर दलितांना शिक्षण व नोकऱ्यात संधी मिळाली. त्यांनी गावकीची कामे सोडली. डॉ. बाबासाहेब आंबेडकरांनी समाजाला बौद्ध धम्माचा मार्ग दिला तरीही दलितांमध्ये मानसिक व वैचारिक स्थित्यंतर झाले नाही. दलितांमधील जाती पोट जातीतील श्रेष्ठ कनिष्ठतेचे व सामाजिक विषमतेचे चित्रण जटायू मध्ये रेखाटलेले आहे.

राघवेळ ही नामदेव कांबळे यांची कादंबरी आहे. जातीय भेदामुळे सवर्णांकडून दलित स्त्रियांवर शारिरीक अत्याचार होतो. दारिद्र्य भूक व उपासमार यामुळे दलित स्त्रियांना सवर्णांकडे कामाला जावे लागते .यातून सवर्णांच्या अत्याचाराच्या दलित स्त्रिया शिकार होतात .कादंबरीतील कौशी ही स्त्री भुजंगराव पाटलाकडे कांदे निवडायला जाते. तो कौशीवर बलात्कार करतो. फुले आंबेडकरांच्या सामाजिक क्रांतीमुळे दलितांमध्ये जागरूकता आली . अन्याय- अत्याचाराविरुद्ध ते लढू लागले. प्रतिकार करू लागले . या सामाजिक स्थित्यंतराचे चित्रण दलित कविता, कथा व नाटकांमध्ये प्रभावीपणे आले आहे. अण्णाभाऊ साठेच्या कादंबरीतील पात्रे हातात फरस घेऊन येतात. स्त्रियांवर अन्याय, अत्याचार करणाऱ्या सवर्णांचा मुडदा पाडतात. दलितांमधील स्वाभिमान, नकार व विद्रोहाचे हे सामाजिक स्थित्यंतर राघववेळ मध्ये मात्र येत नाही. राघववेळमधील कौशी, हरणी, वालंबी या स्त्रिया अत्याचारग्रस्त, सोशिक व लाचार आहेत तसेच यादव, सुभाना व पायसू ही पुरुष पात्रेही जातीव्यवस्थेच्या चौकटीत जगणारी लाचार व परिस्थिती शरण आहेत. अन्याय व अत्याचारा विरुद्ध ते बंड करत नाही त्यामुळे दलितांमधील स्वाभिमान व बंडखोरीचे सामाजिक स्थित्यंतर राघववेळ मध्ये आले नाही प्रा. डॉ. तानाजी पाटील यांच्या मते ३"राघववेळमध्ये कांबळे जीवन विषयक आशावादी दृष्टिकोन मांडतात.स्वातंत्र्यानंतर तळागाळातील माणसाला स्वतःचे भान आले आहे. सगळा समाज खालच्या जीवनविषयक जाणिवांबद्दल हळूहळू जागृत होत आहे .शिक्षणाने संस्कारीत बनवण्याची संधी मिळाल्याने विविध क्षेत्रात नोकरीची संधी मिळत आहे .नव्याने जीवन घडविण्याची क्षितिज त्याच्या दृष्टीच्या टप्प्यात आले आहे त्यामुळे त्याच्याजवळ जगण्याची धडपड तळागाळातील आणि उपेक्षित माणसांची सुरू आहे. एक सामाजिक अभिसरणाची प्रक्रिया सुरू आहे ही प्रक्रिया कांबळे मांडतात" प्रा. डॉ. तानाजी पाटील यांचे वरील मत राघववेळ कादंबरीच्या संदर्भात विसंगत वाटते. राघववेळमध्ये सवर्णांकडून दलित स्त्रियांवर अत्याचार होतो. कादंबरीतील स्त्रिया मूकपणे अत्याचार सहन करतात. स्त्रिया व पुरुष अन्यायाविरुद्ध बंड करून उठत नाही .फुले आंबेडकरांच्या विचार व चळवळीतून दलित - सवर्णांची मानसिकता बदलून सामाजिक अभिसरणाची प्रक्रिया प्रत्यक्ष समाज जीवनामध्ये सुरू आहे .मात्र राघववेळ कादंबरीत दलित पात्रे लाचार व अन्याय, अत्याचार सहन करणारे तर सवर्ण पात्रे परंपरावादी अत्याचार करणारे असे स्थितीशील आहेत.

कळाव ही प्रकाश सोनाळकर यांची कादंबरी पिढ्यानपिढ्या जाती व्यवस्थेच्या कळामध्ये अडकलेल्या व त्यातून मुक्त होऊ पाहणाऱ्या दलित समाजाची कथा आहे .कादंबरीच्या पुर्वार्धात सवर्णांची दडपशाही व दलितांची बंडखोरी यातून यातून दलित सवर्ण- संघर्ष कादंबरीत टोकदारपणे उभा राहतो .काळाराम मंदिराचा सत्याग्रह डोळ्यासमोर ठेवून दलित तरुण गावातील महादेवाच्या मंदिरात प्रवेश करतात आणि संघर्षाची

ठिणगी पडते. गावातील उच्चवर्णियांना हे खटकते व दलित -सवर्ण संघर्ष सुरू होतो .आंबेडकर जयंती ची मिरवणूक दलितांना मारहाण सवर्णांचा बहिष्कार, दलितांची कोंडी, निवडणुका, ग्रामसभा, सरपंच व आमदारांचे मूल्यभ्रष्ट राजकारण त्यातून गावाची झालेली फसवणूक व शेवटी सम्राट या दलित तरुणांच्या मध्यस्थीने दलित सवर्ण साधलेला समन्वय इत्यादी स्वातंत्र्योत्तर कालखंडातील सामाजिक स्थित्यंतराचे चित्रण कळावमध्ये समर्थपणे रेखाटले आहे. विधायक मूल्य दृष्टीमुळे दलित सवर्ण संघर्ष टाळता येऊ शकतो. तसेच निस्वार्थी व नैतिक दलित नेतृत्वही सवर्ण मान्य करू शकतात. यातून समता व बंधुता साधली जाऊ शकते. दलित सवर्णामधील सामाजिक स्थित्यंतराचा आशय कळाव मध्ये प्रभावीपणे सूचित केलेला आहे.

वकिल्या पारधी ही लक्ष्मण गायकवाड यांची कादंबरी वन्य जीवनात रानोमाळ पोटासाठी संघर्ष करणाऱ्या पारधी समाजाची कथा आहे. ब्रिटिश काळापासून पारधी, भिल्ल ,पेंढारी, वारली या टोळ्यांचा कायमचा बंदोबस्त करण्यासाठी इंग्रजांकडून मोहीम राबवण्यात आली. ब्रिटिशांचा ससेमिरा चुकवण्यासाठी पारधी गावाजवळ आले .गावातील लोकांना वन्यजीव व औषधे विकून उदरनिर्वाह करू लागले .कातकरी ,फासेपारधी ,मांग गारुडी ,कोल्हाटी ,डोंबारी ,वडार अशा अनेक भटक्या जमातींना ब्रिटिशांच्या काळापासून आजतागायत गुन्हेगार समजले जाते. न केलेल्या गुन्ह्यात अडकवून त्यांना तुरुंगात डांबले जाते. पोटासाठी वन वन भटकणे ,अस्थिर जीवन व दारिद्र्यामुळे पारधी समाजाच्या जीवनात स्थित्यंतर घडून आले नाही. दरोडे आणि पोलिसांचा ससेमिरा यांचा उबग आलेला रानपाळ्या पारधी शेती घेऊन स्थिर होऊ पाहतो परंतु गावातील पतंगराव पाटील व बाजीराव देशमुख संगनमताने पारधी वस्तीवर हल्ला करतात .पारध्यांचे मोठे हत्याकांड होते. अलीकडच्या काळात अहमदनगर जिल्ह्यातील पाथर्डी गावात पारध्यांचे मोठे हत्याकांड झाले .त्यात अनेक स्त्रियांची अब्रू लुटली गेली. कादंबरीतील हत्याकांडाशी याचे साम्य जाणवते .स्वातंत्र्य मिळून अर्ध शतकानंतरही पारध्यांना अन्न, वस्त्र ,निवारा, न्याय व जगण्याची सुरक्षितता मिळाली नाही .त्यांच्या जीवनात सामाजिक स्थित्यंतर घडले नाही .रानपाळ्याची बायको बकरी हत्याकांडातून वाचल्यामुळे चोरीच्या आरोपाखाली तुरुंगात शिक्षा बघते तिथेच ती बाळंत होती तुरुंगातून सुटल्यावर जगण्यासाठी ती मुंबईत येते. मुंबईच्या रस्त्यावर भिक मागून जगते व तिचा मुलगा वकील्या फुगे विकतो. माय लेकरांची जगण्याची धडपड पाहून ख्रिश्चन फादर दयाळूपणे बकरीच्या परवानगीने वकिल्याला शिक्षणासाठी घेऊन जातो व सेंट जॉन्स स्कूलमध्ये त्याचे वकील गोंसाल्विस असे नाव दाखल करतो. हिंदुत्ववादी संघटनेचा कार्यकर्ता प्रवीण जोशी याला विरोध करतो .हिंदू गरीब आदिवासी पारध्यांना पैसे देऊन धर्मांतर करण्याचा हा प्रकार आहे असे जोशीला वाटते .बकरी मात्र जोशीचे ऐकत नाही. वकील्या शिक्षण घेऊ लागतो. घर वापसी ,वनवासी कल्याण आश्रम ,ख्रिस्ती धर्मगुरूंचे अन्य आदिवासींना मानवतावादी सेवेतून आकर्षित करण्याचे प्रयत्न व धर्मांतर ते धर्मबंधी यासंदर्भात उठलेले वादळ, चर्च वरील हल्ले, देशात अशी अनेक स्थित्यंतरे घडत आहे ,वकिल्या पारधी या कादंबरीत पारध्यांच्या जीवनातील अस्थिरता असुरक्षितता व धर्मांतर या सामाजिक स्थित्यंतराचे चित्रण वास्तववादी रेखाटले आहे. विलास कांबळे दलित कादंबरीच्या संदर्भात निरीक्षण नोंदवतांना म्हणतात "४" कविता कथा आत्मकथन इत्यादी वाङ्मय प्रकाराच्या मानाने दलित कादंबरी हा साहित्यप्रकार क्षीण आहे वाटतो .असे मराठीतील अभ्यासकांचे म्हणणे आहे .गुणात्मक दृष्ट्या विचार करता ते खरेही आहे परंतु संख्यात्मक दृष्ट्या पाहता वेगवेगळ्या स्तरातील दलितांचे जीवन चित्रण करणाऱ्या जवळजवळ सत्तर एक कादंबऱ्या दलित लेखकांनी लिहिल्या आहेत ही वस्तुस्थिती आहे"दलित साहित्यात कविता आत्मकथन या

वाङ्मय प्रकारात संख्यात्मक व गुणात्मक दृष्ट्या सकस निर्मिती झाली आहे हे दोन्हीही वाङ्मय प्रकार भावनेशी निगडित आहेत .सत्तर एक दलित कादंबऱ्या संख्यात्मक दृष्ट्या निर्माण झाल्या असे विधान करून विलास कांबळे यांनी दलित कादंबरीकारांची पाठराखण केली असली तरी व्यामिश्र, बहुआयामी चिंतनशील, गुंतागुंतीचा व मानवी जीवनाचे समग्र चित्रण करणारा प्रदीर्घ भाषिक अवकाश असलेला कादंबरी हा आव्हानात्मक वाङ्मय प्रकार दलित साहित्यिकांना पेलता आला नाही. ही सत्यता नाकारता येत नाही.

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डॉ. रमिला गायकवाड

सहयोगी प्राध्यापक आणि इतिहास विभाग प्रमुख,
एल.जे .एन .जे .महिला महाविद्यालय, विलेपार्ले पूर्व मुंबई ५७.

गोषवारा :

दत्तात्रेय या भारतीय संस्कृतीतील लोकप्रिय आणि अद्भुत देवतेला उपास्य दैवत मानणारा एक महत्वाचा धर्म पंथ म्हणजे दत्त संप्रदाय होय. दत्तोपासना पूर्वीपासून होत असली तरी तिला संप्रदायाचे स्वरूप नरसिंह सरस्वती यांच्या प्रभावामुळे आले. श्रीपाद वल्लभ (दत्तात्रेयाचा पहिला अवतार), नरसिंह सरस्वती(दत्तात्रेयाचा दुसरा अवतार), जनार्दन स्वामी, संत एकनाथ दासोपंत, मुक्तेश्वर निरंजन रघुनाथ, माणिक प्रभू, अक्कलकोटकर स्वामी, वासुदेवानंद सरस्वती या महा पुरुषांनी संप्रदायाची परंपरा अव्याहत सुरु ठेवली .गुरुचरित्र हा दत्त संप्रदायाचा उपासना ग्रंथ मानला जातो. तत्कालीन समाजाचे प्रतिबिंब या ग्रंथात उमटलेले दिसून येते. स्त्रीजीवनाविषयी विविध घटकांचा विचार या ग्रंथात केलेला आढळतो. कुमारिका, विवाहिता, विधवा, सती यांच्या आचारांचे वर्णन या ग्रंथात आढळते. तत्कालीन स्त्रीजीवनाचे विविध पैलू समजून घेण्यासाठी हा ग्रंथ उपयुक्त लिखित साधन आहे.

शोधनिबंध :

प्रस्तावना : इतिहास लेखनासाठी साधने अतिशय उपयुक्त असतात .प्राथमिक आणि दुय्यम साधनांच्या आधारे इतिहास लेखन केल्याने त्या लिखाणास विश्वासाहर्ता प्राप्त होते .इतिहास लेखनासाठी धार्मिक साधने देखील अतिशय उपयोगाची असून तत्कालीन समाज जीवन, धार्मिक जीवन कसे होते याची माहिती आपणास या धर्म ग्रंथातून होते . प्रस्तुत शोध निबंधात गुरुचरित्र या ग्रंथातून स्त्रीजीवनाचे विविध पैलू आढळून येतात त्यांचा उहापोह केला आहे.

उद्देश : १. गुरुचरित्राचा अभ्यास करणे.

२. गुरुचरित्रातील स्त्रीजीवनाचे विविध पैलू अभ्यासणे.

गृहीतके : १.तत्कालीन समाजात स्त्रियांना विविध बंधने होती .

२.या ग्रंथातून सामाजिक जीवन प्रतिबिंबित होते .

संशोधन पद्धती : या शोधनिबंधासाठी वर्णनात्मक संशोधन पद्धतीचा उपयोग केला आहे .

साधने : प्राथमिक आणि दुय्यम साधनांचा उपयोग करून निष्कर्ष मांडले आहेत .

मध्ययुगीन महाराष्ट्रात नाथ, महानुभव, वारकरी, समर्थ हे विविध संप्रदाय निर्माण झाले त्यात दत्त संप्रदाय देखील महत्वाचा मानला जातो.

दत्त संप्रदाय :

दत्तात्रेयास उपास्यदैवत मानणाऱ्यांचा धर्मपंथ. पंधराव्या शतकात नावाच्या महाराष्ट्रीय विभूतीमुळे दत्तोपासनेचा संप्रदाय बनला.दत्त संप्रदायाचे उपास्य असलेला दत्तात्रेय हा गुरुदेव असून त्याची उपासना गुरु स्वरूपातच करणे आवश्यक असते श्री गुरुदत्त किंवा गुरुदेव दत्त हा त्याचा जयघोष मानला जातो. दत्तोपासना पूर्वीपासून होत असली, तरी तिला संप्रदायाचे स्वरूप नरसिंह सरस्वतींच्या प्रभावामुळेच आले. श्रीपाद श्रीवल्लभ हे दत्तात्रेयाचे पहिले अवतार होत. तर नरसिंह सरस्वती हे दुसरे अवतार मानले जातात. जनार्दन स्वामी, एकनाथ, दासोपंत, मुक्तेश्वर, निरंजन रघुनाथ, माणिक प्रभू, अक्कलकोटकर स्वामी, वासुदेवानंद सरस्वती इ. महापुरुषांनी संप्रदायाची परंपरा चालू ठेवली. आजही अनेक दत्तोपासक महाराष्ट्रात आढळतात. या संप्रदायात गुरुचरित्र हा ग्रंथ खूप महत्वाचा मानला जातो. दत्तसंप्रदायाचे गुरुचरित्र ,दत्तप्रबोध, दत्त महात्म्य आणि गुरुलीलामृत हे ग्रंथ विशेष मान्यता पावलेले आढळतात. गुरुचरित्राच्या रचनेवर विवेकसिंधु मधील

शब्दांचा आणि दृष्टांत यांचा विशेष प्रभाव दिसून येतो.^२ या संप्रदायाची माहूर, गिरनार,कारंजे, औदुंबर, नरसोबाची वाडी, गाणगापूर ही प्रमुख क्षेत्रे मानली जातात.

गुरुचरित्र:

हा ग्रंथ दत्त संप्रदायाचा प्रमुख ग्रंथ मानला जातो .हा ग्रंथ दत्त संप्रदायातील वेदतुल्य ग्रंथ असून महाराष्ट्रातील असंख्य लोक या ग्रंथाचे नियमित पठण करतात.^३ इतर देव देवतांप्रमाणे महाराष्ट्र मध्ये भक्तिभावाने दत्तात्रय देवतेची पूजाअर्चा केली जात असून नरसिंह सरस्वती हे दत्त संप्रदायाचे प्रमुख मानले जातात. गुरुचरित्रात दत्त संप्रदायाचा आचारधर्म सांगितला आहे.^४ वारकऱ्यांना 'ज्ञानेश्वरी' व 'दासबोध' प्रिय, नाथपंथीयाना जसा 'नवनाथ भक्तिसार' प्रिय, तसा दत्तभक्तांना 'गुरुचरित्र' हा ग्रंथ पारायणासाठी प्रिय आहे. या प्रासादिक ग्रंथाचे ५२ अध्याय असून ओवीसंख्या ७४९१ इतकी आहे. पहिला अध्याय मंगलाचरण ,२ ते ९ अध्याय दत्तावतारचरित्र, ५ ते १० श्रीपाद वल्लभ चरित्र, ११ ते ५१ श्री नरसिंह सरस्वतीचे चरित्र तर ५२ वा अध्याय अवतरणीका असा या ग्रंथाचा विस्तार आढळतो.^५ सरस्वती गंगाधरांना चरित्र लिहिण्याचा आदेश स्वतः श्रीनृसिंहसरस्वतींनीच दिला अशी माहिती श्रीगुरुचरित्रात दिली असून परंपरेनेही तशी श्रद्धा दत्त संप्रदायात आहे. इ. स. १४८० च्या सुमारास या ग्रंथाची रचना झाली असे मानले जाते. ग्रंथकर्ता सरस्वती गंगाधर हे आपस्तंब शाखेचे ब्राह्मण होते आणि त्यांचे आडनाव साखरे असे होते असे या ग्रंथात लिहिलेले आढळून येते. गुरुचरित्र आणि गुरुलीलामृत हे दोन्ही ग्रंथ दत्तसंप्रदायात पूर्वार्ध आणि उत्तरार्ध म्हणून गणले जातात. महाराष्ट्र आणि दक्षिण भारतात विशेषतः कर्नाटकात दत्त संप्रदायाचा विशेष प्रसार आहे. या ग्रंथाची भाषाशैली सरळ,सुबोध असून ती गद्यप्राय आहे. त्या काळी मुसलमानी सत्ता असून देखील एकही यावनी शब्द या ग्रंथात नाही हे विशेष आहे. महाराष्ट्र धर्म हा शब्द प्रथम या ग्रंथात आढळतो.^६

चौदाव्या व पंधराव्या शतकात महाराष्ट्रामध्ये बहामनी सत्ता स्थापन झाली. आणि सहाजिकच सांस्कृतिक परिवर्तन घडण्यास सुरुवात झाली. इस्लामी संस्कृतीचा प्रभाव महाराष्ट्र संस्कृती वर पडू लागल्याने सहाजिकच सामाजिक स्थित्यंतर घडण्यास सुरुवात झाली. हिंदू स्त्रियांवर तीही अनेक अत्याचार होत होते तसेच राज्यकर्त्यांचा धर्म म्हणून काही हिंदूंनी फायद्यासाठी देखील इस्लामचा स्वीकार केला होता. वर्ण व्यवस्थेमध्ये ब्राम्हण श्रेष्ठ मानला जात होता सहाजिकच इस्लामी राजवटीमध्ये हिंदू धर्मावर फार मोठे संकट येऊन धर्माला ग्लानी आली होती.गुरुचरित्र या ग्रंथात ब्राह्मणांचे श्रेष्ठत्व मान्य केले आहे .ब्राम्हण हिंदू समाजात पूज्य आणि श्रेष्ठ आहे हे वारंवार सांगितलेले आढळते कारण या ग्रंथावर मनुस्मृतीचा फार मोठा प्रभाव आढळतो.

महाराष्ट्र मध्ये मुस्लिम सत्ता झाल्याने महाराष्ट्राची सामाजिक स्थिती सर्वार्थाने अत्यंत शोचनीय झाली होती. गुरुचरित्र इस्लामी राजांच्या अत्याचाराचे अनाचार याचे वर्णन केलेले आहे आणि समाज अत्यंत कठीण परिस्थितीत होता हे त्यातील ओव्यांमधून स्पष्ट झाले आहे.

हे कठीण दिवस युगधर्मा

मलेच्छ राजे क्रूरकर्मी||

प्रकट असता घडे अधर्म

समस्त मलेच्छ येथे येती ||^७

या काळात स्त्रियांची स्थिती अत्यंत अवघडच झाली होती. गुरुचरित्रामध्ये अध्याय २९,३०,३१,३२,३३, ४४ मध्ये या पद्धतीची अनेक वर्णन आढळतात आणि स्त्री जीवनाचे विविध पैलू आपणास दिसून येतात. तत्कालीन समाजात स्त्रीजीवन सतत सामाजिक बंधने आणि राजकीय संकटाच्या दहशतीच्या छायेखाली असल्याने अध्यात्म आणि ग्रंथ वाचन अधिक महत्त्वाचे मानले जात होते . गुरुचरित्राच्या पारायणामुळे कोणते लाभ होतात याचे विवेचन ग्रंथात करण्यात आले असून तत्कालीन स्त्रिया आणि त्यांचे जीवन कशा प्रकारे होते याची झलक पहावयास मिळते . अध्याय चार मध्ये स्त्री छळणाचा दोष जातो आणि स्वहिताचे रक्षण होते असे नमूद केले आहे . तसेच अध्याय बावीस मध्ये वांझ पण दूर येऊन चांगले दूध येते असे नमूद केले आहे . अध्याय २९ मध्ये स्त्री छळ दोष आणि वासना दोष दूर होऊन पावित्र्य लाभते तसेच अध्याय ३० मध्ये कुमारिकांना

इच्छित पतीचा लाभ होऊन सौभाग्य वाढते असे म्हटले आहे . अध्याय ३१ मध्ये पारायाणाने पती वर येणारी विघ्ने टळतात तसेच पतिव्रता स्त्रीने कोणत्या प्रकारे आचरण करावे याचे नियम विषय केले आहे अध्याय ३२ मध्ये वैधव्याचे दुःख टाळता येते तसेच ते सुसह्य होते असे उल्लेख आढळतात . अध्याय ३३ मध्ये वचन भंग आणि व्यभिचार दूर होऊन सद्गती प्राप्त होते असे नमूद केले आहे .

गुरुचरित्राच्या ३२ व्या अध्यायात सती प्रथा ,विधवा स्त्री आणि तिने कोणते आचार पाळावे याविषयी सविस्तर वर्णन केले आहे .माहिती दिली आहे .स्त्रीला वैधव्य किती क्लेशकारक असते याचे वर्णन आपणास अनेक कथा ,कादंबरी आणि लेखांमधून आढळते . धार्मिक ग्रंथांमध्ये असे आचार नियम सांगितले तर त्याचे अनुकरण अधिक निष्ठेने होतांना आढळते . ३२ व्या अध्यायात सती आणि विधवा स्त्री आणि आचार या बाबत विविध आचार आणि त्याची फलश्रुती सांगितली आहे .

पतिव्रतेचिया आचाररिति । सांगे देवांसी बृहस्पती

सहगमनी फळश्रुती। येणेपरी निरोपली ॥१॥

विधवापणाचा आचारु सांगता झाला देवगुरु

पुसताती ऋषेश्वरु। ऐका श्रोते एकचित्ते ॥२॥ ८

विधवांच्या सामाजिक दर्जावरून त्या समाजाच्या संस्कृतीची कल्पना येते असा विचार डॉ. आळतेकारानी आपल्या position of woman in Hindu Civilization या ग्रंथात मांडून स्त्री जीवनाची स्थिती सांगितली आहे .

इसवी सनाच्या दुसऱ्या शतकापासून विधवेच्या संदर्भात अधिक जाचक नियम करण्यात आले .मनुस्मृतीवर मेधातीर्थीने जे भाष्य लिहिले त्यात विरुद्ध मत मांडले .अकराव्या शतकात तर बालविधवेचे लग्न होऊ शकत नव्हते .दिवसोदिवस विधवांची स्थिती बिकट होऊ लागल्याने अपमानित जीवन जगण्यापेक्षा सती जाण्याचा मार्ग स्त्रियांना सोयीस्कर वाटला आणि त्याचे समर्थन तत्कालीन सामाजिक धार्मिक ग्रंथांमध्ये उमटलेले आढळते .विधवा स्त्री समोर आल्यास किती भयंकर मानले जात असे हे पुढील ओवीवरून सिद्ध होते .

ग्रामासी जाता परियेसी ।विधवा भेटता सन्मुखेसी।

मरण सांगे त्या सत्य त्यासी । पुत्रवंती अशुभ नव्हे जाणा ९

कोणत्याही धर्मकार्यात विधवेने केवळ स्पर्शही करता कामा नये . विधवा स्त्री आणि त्यातून सती जाण्याला एक धार्मिक वलय होते. पतीबरोबर सहगमन केल्याने स्त्रीला पार लौकिक फायदे होतात असे गुरुचरित्रात नमूद करण्यात आले आहे . पतीबरोबर सहगमन केल्याने अश्वमेध यज्ञाचे पुण्य,वेचाळीस पिढ्यांचा उद्धार ,स्वर्ग प्राप्ती ,इहलोकी पुण्य आणि परलोकी मुक्ती असे फायदे होतात असे स्पष्ट नमूद करण्यात आले आहे .साहजिकच पतीच्या मृत्यूनंतर दयनीय जीवन जगावे लागत होते ते टाळण्यासाठी स्त्रिया सती जात असत हे निदर्शनास येते.

पती जवळी असे । सहगमनी जावे तिये नारी

असता आपण गरोदरी । करू नये सहगमन ॥ गुरुचरित्र ३२ /६

पारलौकिक फायदा समोर ठेवून स्त्रिया सती जाण्यास तयार होत असे. जरी सती जाण्यासाठी धार्मिक नियम असले तरी स्वेच्छेने सती जाणारा हा वर्ग फार कमी असावा. धार्मिक आणि केवळ घराण्याची प्रतिष्ठा जपण्यासाठी या स्त्रियांवर ती काही वेळेला बळजबरी देखील होत असावी हे नाकारता येत नाही म्हणजेच सती जाण्यासाठी स्त्रीला समाज हा भाग पाडत होता. सती जाताना तिची वेशभूषा कशी असावी तिची मनस्थिती काय असेल याचे वर्णन देखील गुरुचरित्रामध्ये आपल्याला आढळते. इतकेच नव्हे तर तिने कुठल्या प्रकारचा पोशाख करावा हे देखील स्पष्ट दिसते.सती जाणारी स्त्री साक्षात लक्ष्मी सारखी दिसत असावी असा उल्लेख आढळतो.

सोळा वरुषे तारुण्यापण | सुंदर रूप लावण्य |

ल्यायली असे आभरणे (अलंकार) | लक्ष्मीसारखी दिसतसे || गुरुचरित्र ३२/१४

नगरातील स्त्रिया तिच्या दर्शनाला देखील येत असत. त्यामुळे जर लहान मुले अंगावर स्तनपान करीत असेल अशा स्त्रीला सती जाण्याचा अधिकार नव्हता. पतीचे बाहेर गावी निधन झाले असल्यास तिने सहगमन करू नये असाच सूर आपल्याला दिसतो तसेच गरोदर स्त्रीला ही सती जाण्याचा अधिकार नव्हता. ज्या पद्धतीने सती जाण्यासाठी स्त्रीला अशा प्रकारे सामाजिक सन्मान दिला जात होता तसेच विधवेला समाजाने देखील सामान्य व्यक्ती म्हणून जगण्याचा हक्क नाकारलेला होता.

वैधव्य स्त्रीला एक शाप होता. बाल विधवेचे तर हाल प्रचंड होत होते स्त्री सुंदर असेल आणि जर तिला वैधव्य प्राप्त झाले तर अतोनात दुःख होत असे. घरातील आई वडील भाऊ तिच्या मनाचा फारसा विचार करत नसावेत. विधवांना शृंगार तर वर्ज्य होता, तिने नीटनेटके रहावे सुंदर दिसावे हे मात्र मान्य नव्हते. मुलीला केसांचे मुंडन करून तिला वयाच्या दहाव्या-बाराव्या वर्षापासून सक्तीने इंद्रिय दमन करावे लागत असे. इतकेच नव्हे तर तिने कायम श्वेत वस्त्र परिधान करणे गरजेचे होते तिने चोळी ही घालू नये असा उल्लेख आपल्याला गुरुचरित्रामध्ये ५२ व्या ओवीमध्ये आलेला दिसतो. स्त्रीला वैधव्य आल्यानंतर आवड आणि निवड हा शब्द बाजूला ठेवावा लागत असे. तसेच विधवेचे रूप विदूष करण्यासाठी समाज कायम चिंतेत असे आणि सहाजिकच यासाठी केशवपन करावेच लागत असे. विधवेला समाजामध्ये अपमानित जीवन जगताना तिने वागावे कसे, रहावे कसे, खावे कसे त्याची लांबलचक यादी आपल्याला गुरुचरित्रा मध्ये दिलेली आढळते. तिने शाकाहारीच रहावे, तसेच कामवासना आणि भोगवादी वृत्ती अधिक वाढतात म्हणून तिने मांसाहार करणे योग्य नव्हे. म्हणजेच विधवेला फलाहार आणि दूध घेण्यास परवानगी होती पण विडा खाणे, सुवासिक उटणे लावणे, तेल लावणे या गोष्टीतल्या पूर्णपणे वर्ज्य होत्या इतकेच नव्हे तर तिने पलंगावर झोपणे, देह मर्दन करून घेणे सुगंधी फुले माळणे या गोष्टी तिला वर्ज्य होत्या इतकेच नव्हे तर तिने बैलगाडीचा सुद्धा वापर करता कामा नये हे देखील गुरुचरित्रामध्ये ३२ व्या अध्यायात ५३ व्या ओवी मध्ये सांगितले गेले आहे.

नेमे असावे तिये नारी | न बसावे बैलावरी |

लेवू नये चोळी श्वेत वस्त्र नेसावे || गुरुचरित्र ३२/५२

रक्त कृष्ण चित्र वस्त्र | लेता जाण दोष बहुत |

आणिक असे व्रत | पुत्राचे बोल वर्तावे || गुरुचरित्र ३२/५३

इतकेच नव्हे तर व्रतवैकल्यं मध्ये तिने स्वतःला आपले मन गुंतवून ठेवणे गरजेचे होते विधवा स्त्रीने दीपदान, कार्तिकस्नान ब्राह्मण पूजन करावे तसेच एकच वेळ भोजन करावे, एकाच धान्याचे अन्न भक्षण करावे असाच उल्लेख आढळतो विधवेने अनेक उपवास करावे हा तर एक अलिखित नियमच होता. देहाला जेवढे कष्ट देता येतील तेवढे कष्ट देणे अपेक्षित होते. विधवांचा उपोषण यांच्या संदर्भात कोणत्या महिन्यात कोणते व्रत करावे. काय दान द्यावे याचा उहापोह केला आहे. चांद्रयाण व्रताचा उल्लेख हा देखील आढळतो.

विधवा स्त्रीने स्वतःला कष्ट करीत जीवन जगायचे आणि विविध व उपोषणे करणे हे महत्वाचे होते. एकादशी, गुरुवार शनिवार, सोमवार हे विविध देवतांचे उपास करण्याबरोबरच चांद्रयाण व्रताचा उल्लेख आपल्याला आढळतो. हे व्रत म्हणजे शुक्ल पक्षात चंद्रोदयाला एक ग्रास अन्न असे पोर्णिमेपर्यंत दर दिवशी तिथी प्रमाणे एक एक ग्रास वाढवत जायचे म्हणजे द्वितीयेला दोन तृतीय जातील असे पोर्णिमेपर्यंत संख्या पंधरा पर्यंत वाढत जाईल असा नियम होता. अनेकदा कृष्णपक्ष सुरू झाला की ही घासाची संख्या हळूहळू कमी करत जाणे अनिवार्य होते. अन्न ग्रहणाचे संदर्भात अशा नियमांचे आचरण करणे, चांद्रयाणव्रत याचा उल्लेख आपल्याला गुरुचरित्रामध्ये आढळतात.

पाच दिवस पक्षमासी | करावा तिने उपोषणासी |

अथवा चांद्रयाणग्रास | भोजन करणे परियेसा || गुरुचरित्र ३२/१३

थोडक्यात असेच लक्षात येते की विधवेने किती आणि कसे अन्नदान करावे तसेच तिने कोणत्या धातूच्या भांड्या मध्ये असा नियम देखील तेव्हा करण्यात आला होता. अशाप्रकारे विधवांची दयनीय स्थिती किती होती याचा उल्लेख आपल्याला अनेकदा आलेला दिसतो.

कालांतराने काही विधवा स्त्रियांनी संत सेवेचा मार्ग मात्र नंतर स्वीकारला. विधवांचे जीवन हे किती कष्टप्रद होते याचा उल्लेख आपल्याला गुरुचरित्र आपल्या ह्या ओव्यांमध्ये अनेकदा येतो .जसे स्त्रियांच्या विविध अवस्था कुमारिका, सधवा, विधवा याबाबत कसे वर्तन असावे याचा दाखला या ग्रंथामधून आढळतो.

निष्कर्ष :

गुरुचरित्रामध्ये स्त्रियांच्या जीवनाचे विविध प्रकारे वर्णन आढळते . धार्मिक पगडा समाज जीवनावर अधिक असल्याने धार्मिक नियमांचे पालन काटेकोरपणे होत असे. एकोणिसाव्या शतकाच्या उत्तरार्धापर्यंत हे विधवा स्त्रीचे भोग चालूच होते .ब्रिटिश आगमनानंतर स्त्री-पुरुष समता ,शिक्षणाच्या माध्यमातून जागृती झाली. समाजसुधारकांनी त्यासाठी प्रयत्न केला. विधवा विवाह, विवाह वयाची मर्यादा, केशवपन आणि सती बंदी यास विरोध करण्यात आला . हळूहळू स्त्रियांच्या स्थितीत सुधारणा होत गेली,त्याच नियमांचे पालन आजही होताना आढळते . नुकताच विधवा विधी केले जाऊ नयेत असा जी .आर महाराष्ट्र शासनाने काढला. पण मानसिकतेचे काय हा प्रश्न तसाच अधांतरी राहतो . सामाजिक सुधारणा होण्यासाठी मुळात मनोवृत्तीत बदल होणे क्रमप्राप्त आहे . यासाठी धर्म ग्रंथांचे पुनर्वलोकन होणे गरजेचे आहे .इतिहास लेखनासाठी इतिहासाच्या पुनर्लेखन यासाठी अशा साधनांचा पुन्हा एकदा विचार करणे त्याबाबत संशोधन करणे ही गरज आहे धार्मिक ग्रंथ सुद्धा इतिहास लेखनासाठी आणि तत्कालीन परिस्थिती समजून घेण्यासाठी किती उपयुक्त ठरतात हे यावरून सप्रमाण सिद्ध होते.

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अंकेक्षण व पारदर्शकतेचेअध्ययन
विशेष संदर्भ – भंडारा, गोंदिया, नागपूर जिल्हे

बाबा मुरलीधर मेश्राम

रिसर्च स्कॉलर (पीएच.डी.)

आठवले समाजकार्य महाविद्यालय, भंडारा

सारांश (Abstract) :-

महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायदा 2005 हा ग्रामीण भागातील नाकरीकांना वर्षातून 100 दिवसांचे रोजगार देणारा कायदा असून यामुळे गावातील 18 वर्ष पुर्ण करणाऱ्या प्रोढ व्यक्तींना रोजगार प्राप्त होत असतो. ग्रामसभा व ग्रामपंचायत हे ग्रामीण स्तरावर मनरेगाचे प्रमुख अंग आहेत. ग्रामसेवक, रोजगार सेवक, सहाय्यक कार्यक्रम अधिकारी (APO) यांची प्रमुख भुमीका या कायद्याच्या अंमलबजावणीत ग्रामीण स्तरावर असते. प्रत्येक मजुराकडे जॉबकार्ड असतो.वर्षातून दोनदा रोजगार हमीच्या कामाचे सामाजिक अंकेक्षण करण्यात येत असते.ग्रामसाधन व्यक्ती हा गाव स्तरावर सामाजिक अंकेक्षणाचा प्रमुख असतो.परंतु अलीकडच्या काळात सामाजिक अंकेक्षण व पारदर्शकता व्यवस्थीत नसल्याची चिंता केंद्र सरकारने व्यक्त केली आहे.

मुख्य शब्द (Key Words) : रोजगार, जॉबकार्ड, सामाजिक अंकेक्षण, कायदा, पारदर्शकता

प्रस्तावणा :

नाही.काम उपलब्ध झाल की जी मजुरी मिळते ती समाधानकारक मिळत नाही.कित्येक गावात रस्ते, पिण्याच्या पाण्याची समस्या, निवास स्थानाची समस्या दिसून येते.'मनरेगा' अंतर्गत 2012-13 या आर्थिक वर्षात 944 लाख मनुष्यदिवस रोजगार निर्मितीचे लक्ष्य ठेवण्यात आले होते.डिसेंबर 2012 अखेर राज्यात 640 लाख मनुष्यदिवस रोजगार निर्मिती होईल असे अपेक्षित होते, पण प्रत्यक्षात 577 लाख एवढीच रोजगारनिर्मिती झाली आहे.मजुरीची रक्कम देण्यात उशीर लावणाऱ्या राज्यांमध्ये महाराष्ट्राचा अव्वल क्रमांक आहे.आता ही योजना राबवितांना किमान निकष पाळत नाही महाराष्ट्र माघारताना असल्याचे दिसून आले आहे.

सामाजिक अंकेक्षण – योजनेअंतर्गत हमी दिलेल्या ग्रामीण रोजगाराच्या सर्व शर्तीची आणि अधिनियमाखालील सर्व खर्चसह मजुरांच्या किमान हक्कांच्या तरतुदींची अंमलबजावणी ही प्रत्येक सहा महिन्यातून किमान एकदा केंद्र सरकारने विहित केलेल्या रीतीने सामाजिक अंकेक्षणाद्वारे करण्यात येईल. त्यात खालील बाबींचा समावेश असेल.

- 1) सामाजिक अंकेक्षण म्हणून स्थानिक तरुणांची निवड करणे, त्यांना प्रशिक्षण देणे, सामाजिक अंकेक्षण करण्यासाठी प्रत्येक ग्रामपंचायतीकरीता त्या ग्रामपंचायतीबाहेरील तरुणांसह प्रशिक्षित सामाजिक अंकेक्षण गटाची स्थापना करणे, परंतु गावाच्या सामाजिक अंकेक्षकाच्या किमान 25 टक्के इतके अंकेक्षण हे अनुसूचित जाती किंवा अनुसूचित जमातीच्या गटातील असतील. अशा तरुणांनी दिलेल्या सेवेबद्दल, त्यांच्यापैकी

प्रत्येकास, केंद्रीय अधिनियमाखाली कुशल मजुराला देय असलेल्या परिश्रमिकाच्या दरापेक्षा कमी नाही अशा दराने परिश्रमिक देण्यात येईल.

- 2) सामाजिक अंकेक्षक गटांना विनाशुल्क अभिलेख (हजेरीपट, मोजमाप नोंदवहया, प्रदान आदेश) मोफत पुरविणे.
- 3) कामाची उत्पादकता व उपयुक्तता निश्चित करण्यासाठी प्रत्येक कामाच्या जागेची तपासणी करणे.
- 4) संबंधित लाभार्थीकडील अभिलेखावरून प्रत्येक संवितरित रकमेची पडताळणी करणे.
- 5) अंदाजित फलनिष्पत्तीवरून फलनिष्पत्तीची पडताळणी करणे.
- 6) क्षेत्रातील हक्कविषयक तरतुदींची पडताळणी करणे.
- 7) दुर्बल घटकासाठी या अधिनियमाच्या अंमलबजावणीचा आढावा घेणे.
- 8) निष्कर्ष वाचून दाखविण्यासाठी प्रभाग, ग्रामपंचायत व गटस्तरावर सामाजिक अंकेक्षकाकडून जाहीर सुनावणीचे आयोजन करणे.
- 9) सामाजिक अंकेक्षण अहवालावरील कार्यवाहीचा पध्दतशीर पाठपुरावा करणे व अफरातफर झालेल्या रकमांची वसुली करणे, सामाजिक अंकेक्षण केल्याच्या दिनांकापासून 6 महिन्यांच्या आत सामाजिक अंकेक्षणात निदर्शनास आलेल्या अनियमिततांवर योग्य ती शतभंगाची वा दंडात्मक कार्यवाही करणे.
- 10) अधिनियमान्वये खर्च केलेल्या कोणत्याही अफरातफरीच्या रकमा ह्या, राज्यात वसुलीसाठी प्रचलित असलेल्या महसुली कायद्यान्वये वा दंडात्मक कार्यवाही करणे.
- 11) कामाच्या योग्य त्या दर्जाची खात्री तसेच ते काम पूर्ण करण्यासाठी दिलेले एकूण वेतन हे केलेल्या कामाचा दर्जा व परिमाण यानुसार आहे याची खात्री करण्यासाठी गुणवत्ता नियंत्रण पथकांकडून कामाची नियमित तपासणी व पर्यवेक्षण करण्यात येईल.
- 12) राज्य शासन एकतर आपल्या स्वतःच्या यंत्रणेद्वारे किंवा नागरी सामाजिक संघटना, औपचारिक गटाचे कामगार किंवा कामगार प्रतिनिधी याना सहभागी करून घेऊन अंमलबजावणीमधील त्यांचा सहभाग वाढविण्यासाठी आणि अधिनियमान्वये दिलेल्या हक्काच्या तरतुदीची सुनिश्चिती करण्यासाठी उपाययोजना करील.
- 13) प्रभावी गाऱ्हाणे निवारण यंत्रणा स्थापन करणे, ज्यामध्ये खालील बाबींचा समावेश असेल.
 - अ) जेव्हा गाऱ्हाणी उद्ध्वतील तेव्हा ती गाऱ्हाणी स्विकारण्यासाठी प्रत्येक आठवड्यातील एक दिवस निश्चित करून, प्रभाग, ग्रामपंचायत, गट व जिल्हा पातळीवर गाऱ्हाणी स्विकारण्याकरीता त्या दिवशी सर्व कर्मचारी अनिवार्यपणे उपस्थित राहतील.
 - ब) तक्रारी घेण्यासाठी प्राधिकृत केलेल्या सर्व कर्मचाऱ्यांकडून लेखी व तोंडी स्वरूपात आणि दूरध्वनी, इंटरनेट द्वारा स्विकारलेल्या तक्रारीची दिनांक असलेली पावती देण्यात येईल.
 - क) मोका तपासणीद्वारे कामाची तपासणी करणे, निरीक्षण करणे व तक्रार निकालात काढणे ही कार्यवाही सात कार्यालयीन दिवसामध्ये करण्यात येईल.
 - ड) चौकशीची कार्यवाही पूर्ण झाल्यानंतर संबंधित प्राधिकाऱ्यांकडून पंधरा दिवसांच्या आत तात्काळ कार्यवाही करण्यात येईल.

- फ) प्रथम दर्शनी तक्रारीची व सामाजिक अंकेक्षण अहवालातील निष्कर्षाची प्राथमिक चौकशी केल्यानंतर आर्थिक अनियतिततासंबंधी प्रथम दर्शनी पुरावा दिसून येईल. त्याबाबतीत जिल्हा कार्यक्रम समन्वयक विधी सल्ला घेतल्यानंतर प्रथम माहिती अहवाल दाखल केला असल्याची खात्री करील.
- ग) संबंधीत प्राधिकारी, व्यथित झालेल्या व्यक्तीस किंवा पक्षकारास चौकशीच्या निष्कर्षाची आणि त्याचे गाऱ्हाण्याचे निवारण करण्यासाठी हाती घेण्यात आलेल्या उपायाची माहिती लेखी स्वरूपात कळवण्यास जबाबदार असेल.
- ह) सर्व अभिकरणांकडे असलेल्या तक्रारींवर केलेल्या कार्यवाहीची माहिती अनुक्रमे पंचायत समिती व जिल्हापरिषदेच्या बैठकीसमोर मांडण्यात येईल.
- आय) ग्रामपंचायतीच्या आदेशनवरील अपिले कार्यक्रम अधिकाऱ्याकडे दाखल करण्यात येतील, आणि जिल्हा कार्यक्रम समन्वयकाच्या आदेशावरील अपिले ही राज्य आयुक्त (राष्ट्रीय ग्रामीण रोजगार हमी योजना) आणि राज्य गाऱ्हाणे निवारण अधिकारी यांच्याकडे करण्यात येईल.
- जे) सर्व अपिले आदेश दिल्याच्या दिनांकापासून पंचेचाळीस दिवसांच्या आत करण्यात येईल.

ग्रामीण संसाधन व्यक्ती : (VRP)

गावासाठी आत VRP ची नियुक्ती करण्यात येते. VRP हा सामाजिक अंकेक्षणाचा गाव स्तरावरचा प्रमुख असतो. त्याच्यावर तालुका साधन व्यक्ती व जिल्हा साधन व्यक्ती यांचे नियंत्रण असते. गाव स्तरावर SHG व VRP हे सामाजिक अंकेक्षणाचे प्रमुख आहेत. वरील सामाजिक अंकेक्षकाचे कार्य आता VRP पार पाडतो.

सदर विषय नागपूर, भंडारा, गोंदिया या जिल्ह्यापर्यंत मर्यादित असून या संशोधन विश्वातून 384 उत्तर दात्याकडून तथ्य संकलन करण्यात आलेले आहे.

अध्ययनाचे प्रमुख उद्देश : (Major Objective of the Study)

- 1) पूर्व विदर्भात महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायदा 2005 अंतर्गत सामाजिक अंकेक्षण व्यापक पातळीवर होत नाही. या बाबीचा शोध घेणे
- 2) पूर्व विदर्भात महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायदा 2005 अंतर्गत सामाजिक अंकेक्षणात पारदर्शकता ठेवण्यात येत आहे का ? या बाबीचे अध्ययन करणे.
- 3) पूर्व विदर्भात महात्मा गांधी राष्ट्रीय रोजगार हमी कायदा 2005 कायदा अंतर्गत मजुरांना मिळणारी मजुरी वेळेवर मिळते काय ? हे जाणून घेणे.

गृहित कृत्य :-

- 1) पूर्व विदर्भात महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायदा 2005 अंतर्गत सामाजिक अंकेक्षण व्यापक पातळीवर होत नाही.
- 2) पूर्व विदर्भात महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायदा 2005 अंतर्गत सामाजिक अंकेक्षणात पारदर्शकता ठेवण्यात येत नाही.
- 3) पूर्व विदर्भात महात्मा गांधी राष्ट्रीय रोजगार हमी कायदा 2005 ची मजुरी मजुरांना वेळेवर मिळत नाही.

संशोधन आराखडा :- सदर विषय वर्णनात्मक स्वरुपाचा असल्यामुळे वर्णनात्मक संशोधन आराखड्याचा उपयोग करण्यात आला.

नमुना निवड :-

सदर संशोधन विषयासाठी सभांब्यता नमना निवडीचा साधा यादृच्छिक नमुना निवड पध्दतीच्या (1) ग्रीड तंत्र (2) नियमित अंकन तंत्रानुसार 384 उत्तरदात्याची नमुना म्हणून भंडारा, गोंदिया, नागपूर जिल्ह्यातून निवड करण्यात आली.

तथ्य संकलन :-

सदर संशोधन विषयासाठी प्राथमिक पध्दतीत सरंचीत मुलाखत अनुसूची व दुय्यम पध्दतीत सरकारी अहवाल, पुस्तके शासन निर्णय यांचा उपयोग करण्यात आला.

(1) पूर्व विदर्भात महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायदा 2005 अंतर्गत सामाजिक अंकेक्षण व्यापक पातळीवर होत नाही. हे दर्शवणारी सारणी

विवरण	वारंवारिता	टक्केवारी	
1) पूर्णता सहमत (5)	104	27.83%	Scale
2) सहमत (4)	96	25.00%	Linkart Scale
3) अनिश्चित (3)	79	20.57%	$5 - 1 = 4 \div 5 = 0.80$
4) असहमत (2)	55	14.32%	VerballInterpretation :-
5) पूर्णतः असहमत (1)	50	13.20%	पूर्णतः सहमत = 104 = खुप जास्त पूर्णतः असहमत = 50 = खुप कमी
एकुण	384	100 %	

Mean = 76.08 Standard Deviation = 37.34

वरील सारणीवरून हे स्पष्ट होते की, पूर्व विदर्भात महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायदा 2005 अंतर्गत सामाजिक संकेक्षण व्यापक पातळीवर होत नाही. या विषयाशी पूर्णतः सहमत असणाऱ्यांची वारंवारिता 104 असून त्यांची टक्केवारी 27.83 आहे व Linkert Scale नुसार Very high आहे. त्याचबरोबर, अहमत असणाऱ्या उत्तरदात्याचे प्रमाण 96 आहे व टक्केवारी 25 टक्के एवढे आहे व inkert Scale नुसार high (जास्त) आहे.त्याचप्रमाणे अनिश्चित असणाऱ्याची प्रमाण 79 असून टक्केवारी 20.57% आहे.त्याचप्रमाणे असहमत असणाऱ्याचे प्रमाण 55 म्हणजे 14.32% एवढे आहे व हे प्रमाण Linkert Scale नुसार हे प्रमाण कमी आहे. त्याचप्रमाणे पूर्णतः असहमत असणाऱ्यांचे प्रमाण 50 असून टक्केवारी 13.20 आहे. Linkert Scale नुसार हे प्रमाण खुप कमी आहे.

म्हणजेच पूर्णता सहमत 104 खुप जास्त आहे व पूर्णतः असहमत हे प्रमाण 50 खुप कमी आहे.

(2) पूर्व विदर्भात महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायदा 2005 अंतर्गत सामाजिक अंकेक्षण पारदर्शकता ठेवण्यात येते का ? हे दर्शवणारी सारणी

विवरण	वारंवारिता	टक्केवारी
1) होय	148	38.54%
2) नाही	236	61.46%
एकूण	384	100 %

$$\text{Ratio} = 148 : 236 = 37 : 59$$

वरील सारणीवरून हे स्पष्ट होते की, पूर्व विदर्भात महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायदा 2005 अंतर्गत सामाजिक पारदर्शकता ठेवण्यात येते की ? हा प्रश्न जेव्हा मजुरांना म्हणजे उत्तरदात्यांना विचारण्यात आला तेव्हा 148 उत्तरदात्यांनी होय असे मत दर्शविले त्यांचे प्रमाण 38.54% एवढे आहे तर नाही असेमत 236 उत्तरदात्यांनी दिले. त्यांचे शेकडा प्रमाण 61.46 % एवढे आहे.

यावरून हे स्पष्ट होते की, पूर्व विदर्भात महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायदा 2005 अंतर्गत सामाजिक अंकेक्षण पारदर्शकता ठेवण्यात येत नाही.

- (3) पूर्व विदर्भात महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायदा 2005 ची मजुरी मजुरांना वेळेवर मिळते का ? हे दर्शवणारी सारणी

विवरण	वारंवारिता	टक्केवारी
1) होय	150	39.06 %
2) नाही	234	60.94 %
एकूण	384	100 %

$$\text{Ratio} = 150 : 234 = 25 : 39$$

वरील सारणीवरून हे दिसून येते की, पूर्व विदर्भात महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायदा 2005 ची मजुरी मजुरांना वेळेवर मिळते असे मत व्यक्त करणाऱ्या उत्तरदात्यांची संख्या 150 असून टक्केवारी 39.06% एवढी आहे तर मजुरी वेळेवर मिळत नाही असे म्हणणाऱ्या उत्तरदात्यांची एकूण संख्या 234 असून टक्केवारी 60.94% एवढी आहे.

निष्कर्ष :-

“पूर्व विदर्भातील महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायदा 2005 अंतर्गत सामाजिक अंकेक्षण व पारदर्शकतेचे अध्ययन” विशेष संदर्भ भंडारा, गोंदिया, नागपूर जिल्हे. सदर विषयाचे निष्कर्ष या संशोधन पेपरला अनुसरून खालील प्रमाणे

- 1) पूर्व विदर्भात महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायदा 2005 अंतर्गत सामाजिक अंकेक्षण व्यापक पातळीवर होत नाही.
- 2) पूर्व विदर्भात महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायदा 2005 अंतर्गत सामाजिक अंकेक्षणात पारदर्शकता ठेवण्यात येत नाही.
- 3) पूर्व विदर्भात महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार हमी कायद्याची मजुरी मजुरांना वेळेवर मिळत नाही.

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स्त्रीवादी दृष्टिकोनातून दलित स्त्रियांची आत्मकथने

डॉ. एच. एन. लोखंडे

(प्रभारी प्रचार्य)

एल.जे.एन.जे. महिला महाविद्यालय

विलेपार्ले (पूर्व), मुंबई - ४०००५७.

पुरुषप्रधान व्यवस्थेमध्ये व समाजरनेमध्ये पुरुषवर्गाच्या हितसंबंधची जपणुक प्रत्यक्षाप्रत्यक्षपणे केली जाते हे उघड आहे. त्यामुळे एकीकडे जरी ही समाजरचना सवार्थाने पुरुषवर्गाला हितकारक, फायदेशीर ठरत असली तरी दुसरीकडे समस्त स्त्री वर्गाला जाचक ठरलेली आहे. भारतातील पुरुषप्रधान समाजरचनेबरोबरच चातुर्वर्ण्य व्यवस्थेमध्ये शुद्रातिशुद्र ठरविल्या गेलेल्या स्त्रीलाही उशिरा का होईना आपल्या शोषणाची स्वत्वाची जाणीव होऊ लागली. यामागे फुले – आंबेडकर यांच्या चळवळीची फार मोठी पार्श्वभूमी आहे. ही चळवळ जशी मानवमुक्तीची होती तशीच ती मानवामध्ये असलेल्या स्त्रीच्या स्वतंत्र स्थानाविषयीची होती.

उपेक्षित वर्गातील ही स्त्रीशोषणाची जाणीव, तिच्या आयुष्याची फरफट यातून आलेली स्वत्वाची जाणीव दलित स्त्रियांनी त्यांच्या आत्मकथनातून प्रथमच समर्थपणे व्यक्त केलेली दिसते. इतर वाङ्मयप्रकाराच्या तुलनेत स्व – जाणिवा, वेदना यांना शब्दरूप देण्यासाठी “आत्मकथन” हा साहित्यप्रकार या वर्गातील स्त्रियांना अर्थातच अधिक आपलासा वाटलेला आहे.

स्त्रीवादी दृष्टिकोनातून दलित स्त्रियांची आत्मकथने हा विषय मांडतना जातिसंस्था, पुरुषसत्ताक व्यवस्था, कुटुंब संस्था असे संदर्भबिंदू समोर ठेवून पुढील मुद्द्यांच्या आधारे विवेचन करणे मला सोयीचे वाटते.

- १) दलित लेखिकांच्या आत्मकथनातून व्यक्त होणारे दलित स्त्रीचे अनुभवविश्व
- २) पुरुषसत्ताक व्यवस्थेतील स्त्रीचे असलेले नेमके स्थान, तिला प्राप्त झालेली दुय्यमत्वाची, शोषणाची जाणीव
- ३) जातीय, वर्गीय कौटुंबिक शोषणाविरुद्ध स्त्रीचे प्रतिकार, विद्रोह करण्याचे सामर्थ्य
- ४) प्रस्तुत आत्मकथनातील पुरुषव्यक्तिरेखांचा स्त्रीव्यक्तिरेखांकडे पाहण्याचा दृष्टिकोन
- ५) समाजात व्यक्ती म्हणून स्थान मिळावे, माणूस या नात्याने समान दर्जा मिळावा यासाठी स्त्रीने केलेली धडपड, आपल्या क्षमतांचा केलेला वापर

६) स्त्री विशिष्ट अनुभव व्यक्त करणारी भाषा या अंगानेही स्वतंत्र अभ्यास वेगळा या अंगाने साधारणपणे १९८० ते २००० या काळातील एकुण चार ठळक अशा दलित स्त्रियांच्या आत्मकथनांचा मी स्त्रीवादी, दृष्टिकोनातून विचार मांडत आहे. यामध्ये कुमुद पावडे यांचे अंतः स्फोट, बेबी कांबळे यांचे जिणं आमुचं, शांताबाई कांबळे यांचे माज्या जन्माची चित्तरकथा व विमल मोरे यांचे तीन दगडाची चूल या चार आत्मकथनांचा समावेश येथील विवेचनामध्ये केलेला आहे.

१९८३ साली प्र. कुमुद पावडे यांचे “अंतः स्फोट” हे आत्मकथन क्रमशः नऊ लेखांच्या रूपाने आकारला आले. या आत्मकथनामध्ये त्यांनी स्वतःला कळू लागल्यापासूनच ते विवाह, नोकरी, कौटुंबिक वातावरण व सामाजिक जीवनाच्या संदर्भात लेखन केलेले आहे. स्त्रीजीवनातील काही प्रश्नांची चर्चा करताना परंपरागत रुढी, अंधःश्रद्धा, व्रतवैकल्ये तसेच त्यामागे असलेले स्त्रीचे पराकोटीचे अज्ञान व दुर्बळपण निवेदिकेने परखडपणे टिपलेले आहे. प्रस्तुत आत्मकथनातील मायबाई ते निवेदिकेच्या पतीची मोठी मावशी तिला झालेली दोन मुले जन्मानंतर लगेचच वारली. त्यानंतर तिला मुल न झाल्याने तिच्या नवर्याने तिला कोणत्याही प्रकारची

पूर्वसुचना न देता दुसरे लग्न केले. याचाच अर्थ तो स्त्रीकडे स्त्रीच्या गर्भाशयाकडे जनन - क्षेत्र बीज क्षेत्र याच नजरेने पुरुष पाहातो. निवेदकाने म्हटल्याप्रमाणे तिची अवस्था एखाद्या अडगळीत टाकलेल्या वस्तूसारखी करतो. पुरुषसत्ताक पध्दतीच्या वर्चस्वातून मायबाईचा नवरा स्वच्छंदीवृत्तीने वागत राहतो. मायबाईच्या मनाचा किंचितही विचार करीत नाही. मात्र ऐवढे होऊनही मायबाई जेव्हा सर्व स्त्रियांसोबत वटसावित्रीचे कडकडीत व्रत करते, तेव्हा निवेदिका तिच्या आचरणातील फोलपणा दाखवून देते. याप्रकारच्या परंपरेतून आलेल्या भ्रमक कल्पना तिच्या निदर्शनाला आणून देते. कर्तकांडाचे आचरण करणे फोलपणाचे आहे, स्त्रीच्या, आत्यांतिक अज्ञानातून आलेल्या मानसिक गुलामगिरीचे हे प्रितक आहे असेही निवेदिका पोटतिडिकेने सांगते अशा पारंपारिक स्त्री प्रितमेपेक्षा स्त्री असणार्या अर्थाचे मूल्यात्मक वेगळेपण जाणीवपूर्वक व्यक्त करते. पतीच्या आधी मरण येणे म्हणजे अहेवमरणाचा एका परीने स्त्री दास्याशी संबंधित असलेल्या आणखी एका पूर्वापार संकेत व्यवस्थेचाच निषेध मला अहेवपणी मरण नकोच या लेखातून निवेदिका करते. पुरुषाच्यानंतर स्त्रीने राहणे म्हणजे अमंगल हा पूर्वापार चालत आलेला समज मोडीत काढताना निवेदिका म्हणते, पतीला साथ देणारी मी एक समर्थ पत्नी आहे. सौभाग्यलेण्यांची नाही. माप्यासमोर पती मरणानंतर पोतेर होण्याचा प्रश्नच उद्भवत नाही. सद्सद्विवेकबुद्धी जागृत ठेवणारी मी एक माणूस आहे. व्यर्थत्यागाच्या कल्पनांनी अंगीभूत झालेली मी देवताही नाही किंवा असे पती देवचि ललनांना हे मानणारी मी पारंपारिक गुलामही नाही. पती – पत्नी संबंध हे केवळ पती – पत्नी या अर्थाने न राहता उत्तम सहचाराचे असावे हा नवा दृष्टिकोणही सांगू इच्छिते जात, धर्म, लिंग, वर्ग या सार्यांविषयी चिंतनगर्भ भाष्य होताना दिसते.

चातुर्वर्ण्यव्यवस्थेमध्ये ज्ञानार्जन करणे हा विशिष्ट उच्चभू लोकाचा अधिकार होता. त्यामुळे कुमुद पावडे, पुर्वाश्रमीच्या कुमुद सोमकुंवर यांना एम.ए. च्या परिक्षेत संस्कृत या विषयात सर्वाधिक गुण मिळतात. त्याचप्रमाणे पं. नेहराकडून पुरस्कारार्थ धनादेशही मिळतो. पण नोकरी कुठेही मिळत नाही. विवाह झाल्यानंतर मात्र सोमकुंवरचे पावडे आडनाव होताच तिला नोकरी मिळते. याठिकाणी एका दलित स्त्रीच्या बुद्धिमत्तेविषयी, आकलनाविषयी, तिच्या एकुण कर्तृत्वाविषयी सवर्णांच्या मनात असलेला आकस, तिच्या जातीविषयी त्यांना वाटणारी घृणा यामुळे निवेदिकेच्या प्रगतीच्या मार्गामध्ये अनेक अडथळे निर्माण केले जातात. परंतु माणसाची जात ही जन्माने ठरत नसून ती त्यांच्या जगण्यावागण्यातून व्यक्त होते यावर निवेदिकेचा ठाम विश्वास आहे. तीही सांगते, तुमच्या हातचं अन्न मला चालत नाही तिच्या या विधानावर कमालीचे आश्चर्य व्यक्त करणार्यांना ती दुसरा टोला हाणते. “दुसऱ्यांच्या स्वच्छतेवर माझा विश्वास नाही” अशाप्रकार कुमुद पावडे यांच्या अंतःस्फोट या आत्मकथनातून व्यक्ती म्हणून जगत असताना, दलित स्त्री म्हणून वावरत असताना विशिष्ट व्यवस्थेतून जाणवणार्या ज्या ज्या विसंगती दिसतात यावर निवेदिका जागोजाग परखडपणे भाष्य करताना दिसते.

यानंतरच्या आत्मकथनांचा विचार करता बेबी कांबळे यांचे जिण आमुचं आणि शांताबाई कांबळे यांचे माज्या जल्माची चित्तरकथा ही दोन्ही आत्मकथनेत पश्चिम महाराष्ट्रातील दलित स्त्रीजीवनाची स्थितिगती रेखाटणारी म्हणून प्रिसध्द झालेली आहेत. १९५६ च्या आधीचा गावकुसाबाहेरचा दलित स्त्रीचा खडतर प्रवास आणि धर्मानंतरानंतरची सर्वार्थाने बदललेली आयुष्याची घडी यासंबंधीचे मनोगत या दोन्ही आत्मकथनांमधून व्यक्त होताना दिसते.

जिणं आमुच हे बेबी कांबळे यांचे आत्मकथन मराठीतील पहिले दलित आत्मकथन मानले जाते. १९८७ साली ते पुस्तकरूपाने प्रकाशित झालेले असले तरी १९८५ साली स्त्री या मासिकातून ते कर्णमशः प्रिसध्द झालेले आहे. प्रस्तुत आत्मकथानातील स्त्रीचे शोषण हे उघडउघड तीन पातळ्यावरून होते.

- १) दलित स्त्रींच्या कुटुंबातील, नात्यातील शेजारपाजारची मंडळी
- २) दलित पुरुष – नवरा, सासरा, शेंबंडे लहान मूल इत्यादी
- ३) सवर्ण पुरुषांकडून झालेले दलित स्त्रीचे शोषण

मराठीतील पहिले दलित स्त्रीचे आत्मकथन यादृष्टीने जिणं आमुचं या आत्मकथनाचे ऐतिहासिक महत्व वादातील आहेत. लग्न म्हणजे काय ? नवरा म्हणजे काय ? हे माहित नसलेल्या आठ – दहा वर्षांच्या मुलीच्या सासुरवासाच्या अनेक जाचक कहाण्या प्रस्तुत आत्मकथनातून कारुण्यपूर्णरीत्या चित्रित होताना दिसतात. एकत्र कुटुंबातील सून ही त्या घरामध्ये तसेच घराबाहेरही सर्वांचीच गुलाम आहे. तिला घरातील नाक गळणार्या दिरा नणंदांचा इतकेच नव्हे तर सासरच्या दारातील कुत्र्याकॉबडयांचाही मान ठेवावा लागे. उदा. सासरच्या दारात, कुत्रं बसलेले असेल तर त्याला हाडं म्हणायचं नाही, हाडाजी मामाजी म्हणायचं, सासूचं कॉबड असेल तर तिला खुडाजी आत्याबाय असे म्हणावे लागे. म्हणजेच येथे सासुरवास सोसणार्या मुलींनी प्रण्यांशी देखील आदबीने, नम्रतेने बोलावे ही कुटुंबाची अपेक्षा दिसते. पण तिला मात्र कुटुंबामध्ये अशा पद्धतीने सन्मानाने वागविले जात नाही हे समाजातील कटुसत्य येथे रेखाटले जाते. रस्त्याने जाणार्या सवर्णांपुढे स्त्रीने मारनी पाया पडन घालत्यात धनी म्हणून वाकून जावं, एखाद्या घरच्या सुनेला ही रीत माहित नसल्यास, कुटुंबातील पुरुषाकडून तसेच सवर्ण समाजाकडून तिचा उद्धार होत असे.

प्रस्तुत आत्मकथनामध्ये स्त्रीच स्त्रीच्या दुःखाला कारणीभूत होत, असेही चित्र वाचकापुढे प्रकट होते. वीरगावातील सासुरवाशिनीच्या छळणाच्या अघोरी प्रकारातून स्पष्ट होते. उदाहरणार्थ सुनेला भाकर्या नीट करता आल्या नाहीत. तर सासूने तोच भाकरीचा गोळा तिच्या तोंडावर मारणे, तिच्या चारित्र्याविषयी शंका घेऊन तिचे नाक कापणे अथवा तिच्या पायात खोडा घालणे, सून रात्री झोपते न झोपते तोच तिला मध्यरात्री उठवून जात्यावर पीठ दळायला बसविणे, तिने भिजविलेल्या पिठात हळूच तिच्या पश्र्यात काचा मिसळणे, वर तिच्या वाडवडिलांचा उध्दार करीत जगभर सांगत हिंडणे, कामतृप्तीसाठी मुला – सुनेला एकत्र येऊ न देणे अशा अनेक तर्हा या आत्मकथनातून व्यक्त झालेल्या दिसतात. एकीकडे सवर्णांच्या छळाला कंटाळलेल्या, त्यांच्या उष्ट्या खरकटया अन्नावर विसंबून राहिलेल्या स्त्रिया आपल्याच कुटुंबातील सुनेवर, मुलावर वर्चस्व दाखवितात. माणुसपणालाही लाजवील अशी कृत्ये करतात व त्यातून दुसरीकडे स्वतःच्या मनाला एक आसुरी आनंद मिळवून त्यात स्वतःची धन्यता मानतात असेही दिसते. म्हणजेच एक शोषित हा याठिकाणी शोषक झालेला दिसतो. साठ – एक वर्षांपूर्वी वीर गावातील आत्यंतिक दारिद्र्य, भूक, रुढी, परंपरा, अंधश्रद्धा अस्पृश्यता यांच्या जीवघेण्या अनुभवातून स्त्रीला जावे लागले. आषाढ महिन्यातील शरीरातून रक्त निघेपर्यंतच्या होणार्या जीवघेण्या अंधोळी, स्त्रीचे शारीर – मानसिक पातळीवर आत्यंतिक शोषण होणे, प्रचंड कौटुंबिक दडपणाखली वावरणार्या स्त्रियांनी आपल्या कुटुंबातील, शेजारपाजारच्या वडील माणसांचे स्वतःकडे लक्ष जावे, काही क्षण त्यांची सहानुभूती लाभावी यासाठी अंगात आणणे, स्त्री – पुरुष श्रम विभागणीमध्ये समानता नसल्याने तोही कौटुंबिक भार सांभाळणे, आपली शेंबुडाचे नळ वाहात असलेली उघडीबंब मुले वार्यावर सोडून उन्हातान्हातून लाकडाच्या मोळ्या आणून सवर्णांच्या दारामागे टाकणे, पुन्हा त्यांना विटाळ होऊ नये यासाठी काळजीपूर्वक, भेदरलेल्या मनाने एखादा दौरा लाकडात गेलेला नाही ना ? याची तपासणी करणे हे सगळेच प्रसंग भारतीय दलित स्त्रीजीवन, स्त्रीमनयावर विदारक प्रकाश टाकणारे आहेत. म्हणजे कुर्हाडीने लाकडे फोडताना अस्पृश्याचे रक्त त्या लाकडांना लागते ते सवर्णांना चालते. लाकडे फोडताना त्यावर गळलेला घामही त्यांना चालतो. पण एखादी सुताची दोरी मोळीमध्ये गेल्यास ती सवर्ण स्त्रीला चालत नाही. म्हणजे उच्चवर्णीय स्त्रियांनी या जातीव्यवस्थेचे पालन काटेकोरपणे घट्टपणे करावे, स्त्रीनेच स्त्रीच्या शोषणाला जबाबदार असणे हे चित्र या आत्मकथातून स्पष्टपणे जाणवते.

या आत्मकथनाच्या उत्तरार्धांमध्ये सर्व स्त्रियांना बाबासाहेब आंबेडकरांच्या व्यक्तिमत्वामुळे व विचारांमुळे एक नवा जीवनार्थ लाभल्याचे मोठे समाधान मिळाल्याचे दिसते.

स्वजीवनाची कालक्रमाने मांडणी करणारे शांताबाई कांबळे यांचे माज्या जन्माची चित्तरकथा हे आत्मचरित्र १९८६ मध्ये प्रिंसिपल झाले. यातील अनुभवविश्राममध्ये १९३० ते १९८० या काळातील दलित

स्त्रीचे जीवन रेखाटलेले आहे. एका सेवानिवृत्त झालेल्या दलित शिक्षिकेचे आत्मचरित्र म्हणून या पुस्तकाला मूल्य प्रप्त झालेले आहे.

पुरुषसत्ताक समाजव्यवस्थेमध्ये स्त्री जन्म हा कनिष्ठ समजला जातो. शांताबाईचे माहेरचे नाव नाजुका. दोन मुलींच्या पाठीवर नाजाचा जन्म झाल्याने वडील संतप्त होतात. समद्या कारटयाच झाल्या. आज, आन हिकडं त्या पोरीला, आन खोरं टिकावं ही. तिला पुरुनच येतो हा त्या काळातील मुलीच्या जन्माकडे पाहण्याचा परंपरागत पुरुषप्रधान दृष्टिकोन पुढे ते नाजुकांशी मायेने वागले तरी वाचकमनातून नाहीसा होत नाही. दारिद्र्य, अन्याय, अंधःश्रद्धा, अस्पृश्यता, अवहेलना यांना ती शांतपणे सामोरी जाते. एक माणूस म्हणून आपली जडणघडण कशी होत गेली, त्यातून तिने आपले कर्तृत्व सिध्द केलेले आहे. परंपरेशी विद्रोह केला पण तो कृतीच्या माध्यमातून अनेक प्रकारच्या अडचणींना तोंड देऊन शिक्षक होऊन आपल्या मुलांनाही तिने शिक्षण दिलेले आहे.

शांताबाई कांबळे यांच्या पतीचे – मास्तरांचे दुसर्या स्त्री बरोबर लग्नाच्या आधी संबंध होते ही गोष्ट शांताबाईना ठाऊक आहे. शांताबाईशी विवाह केल्यानंतर ते स्वतःच्या मामेबहिणीबरोबर लग्न करतात यावर निवेदिकाने कुठेही अकांडतांडव न करता हे वास्तव संयमाने स्वीकारलेले आहे. याउलट कांबळे मास्तर शांताबाईनी दुसरे लग्न केले नाही ना या शंकेने सारखे त्यांच्या माहेरी विचारपूस करतात. निवेदिकाने रेखाटलेल्या प्रसंगातून पुरुष स्वातंत्र्य घेण्यास मुक्त आहे. परंतु स्त्रीने असे स्वातंत्र्य उपभोगू नये. तिने पुरुषांच्या अधिपत्याखालीच राहाव हा परंपरेतून आलेला पुरुषसत्ताक वर्चस्वाचा पगडा या प्रसंगातून साक्षात होतो व स्त्रीदेखील स्वभावभावनांचा शारिरीक – मानसिक गरजांचा स्वाभाविक विचार न करता परंपरेतून आलेल्या पातिव्रत्याच्या बंधनात राहणेच पसंत करते असेही चित्र याठिकाणी दिसते.

पुढील काळात शिक्षणाने जागृत झालेली निवेदिका कासारीण विटाळ होऊ नये म्हणून गोधडी पांघरुण तिला बांगड्या भरते, तेव्हा तिचा निषेध करते, सर्व महार स्त्रियांनी तिच्याकडून बांगड्या भरू नये असे सांगते. कांबळे मास्तरांच्या दुसर्या विवाहानंतर एका शिक्षकाने माप्याशी लग्न कराल का ? असा प्रस्ताव ठेवल्यावर निवेदिका त्याच्या अंगावर धावून जाते. या एक दोन प्रसंगातच निवेदिकेच्या मनातील जातीव्यवस्था, पुरुषव्यवस्था याविषयीचा संताप व्यक्त होताना दिसतो. पण एरव्ही निवेदिका बरीचशी मूक राहिलेली दिसते. प्रस्क्षापित व्यवस्थेला तिने दिलेली नकार किंवा त्याविषयी वाटणारी वेदना येथे फार तीव्रतेने व्यक्त होत नाही. निवेदिकेचा सगळाच प्रवास हा केवळ स्वविकासाकडे जाण्याचा दिसतो. शिक्षणविस्तार अधिकारी या पदापर्यंत पोहोचण्यासाठी अनेक अडचणींना तोंड देऊन त्यांनी केलेली धडपड, कष्ट, जिद्द, प्रयत्न हे गुण एका दलित स्त्रीच्या ठिकाणी असणे ही गोष्ट अतिशय वाखणण्यासारखी आहे. मात्र प्रस्तुत आत्मचरित्रामध्ये कुठेही गतजीवनबद्दलच्या चिंतनाची वा आत्मशोधाची भूमिका प्रकट होताना दिसत नाही.

यापुढील काळात गोंधळी समाजातील कुडमुडे जोशी या उपेक्षित भटक्या जमातीचे प्रितनिधीत्व करणारे विमल मोरे यांचे तीन दगडाची चूल हे आत्मकथन सप्टेंबर २००० साली प्रिसध्द झाले. विमल मोरे यांच्या बालवयातील आठवणीपासून लग्न झाल्यानंतरच्या काळापर्यंतच्या म्हणजेच साधारणपणे पंधरा ते वीस वर्षातील घटना यांचे निवेदन याठिकाणी आलेले आहे.

विमल मोरे (पूर्वाश्रमीची विमल भोसले) हे या आत्मकथनातील प्रधान पात्र आहे. पुरुषसत्ताक पध्दतीमुळे पुरुष हा स्त्रीचे शोषण करतो, तिच्या विकासाच्या आड येतो आहे असे चित्र आजवरच्या दलित स्त्रियांच्या आत्मकथांतून प्रगट होत होते. पण प्रस्तुत आत्मकथनामध्ये स्त्री पुरुष समानतेकडे जाणारे चित्रण आढळते. वास्तविक पाहता, पारंपारीक दृष्टी घेऊन आलेले जातीव्यवस्थेच्या दडपणाखील पिचलेले विमलचे वडील तिला शिक्षण देण्यास मान्यता देत नाहीत. पण स्व – कष्टाने शिकून पोलीस खात्यात काम करणारा, नव्या पिढीचा, उमद्या स्वभावाचा विमलचा भाऊ आग्रहाने विमलला शिक्षण घेण्यास सांगतो. पुढे नववीपर्यंत शिक्षण घेतल्यानंतर गबाळंकार दादासाहेब मोरे यांच्याशी तिचा विवाह होतो. शिक्षण घेऊनही जुन्या –

विचारांचा, पुरुषी वर्चस्वाचा संस्कार विमलच्या मनावर दिसतो. चळवळीतील एक मोठा कार्यकर्ता म्हणून दादासाहेबांचे दडपण तिच्या मनावर येते. पण माहेरी जशी आपली उपासमार होत होती तशीच सासरीही होत असल्याचे तिच्या ध्यानात येते. पती दादासाहेब मोरे दिवस रात्र समाजसेवेत बुडून आहेत. अर्थर्जनाचे कोणतेही काम करीत नाही, याचा तिला संताप येतो. म्हणजेच पुरुषाने अर्थार्जन करावे व स्त्रीने चूल व मूल सांभाळावी हे चित्र तिच्या मनात घट्ट असलेले दिसते.

स्त्रीवादी साहित्यविचाराला शॉवाँल्टरने गायने क्रिटिक असे म्हटले आहे. स्त्रीचे म्हणून एक वैशिष्ट्यपूर्ण अनुभवक्षेत्र असते, त्या अनुभवक्षेत्राला त्यांनी वॉर्डल्ड झोन असे म्हटले आहे. मासिक पाळी व तिचा स्त्रीच्या शारीरिक – मानसिक अवस्थांशी असलेला जैविक संबंध, स्वतःच्या शरीरात दुसऱ्या जीवाला वाढवून त्याला जन्म दिल्यानंतरची स्त्रीची मानसिक अवस्था यांचे चित्रण तीन दगडाची चूल या आत्मकथनांतूनही स्पष्टपणे व्यक्त होते. विमलच्या वहिनीचे पहिले मूल रात्री तिच्या अंगाखाली येऊन घुसमटते, मरण पावते. स्त्रीच्या ठिकाणी असलेली मातृत्वाची ओढ, वात्सल्य यामुळे या घटनेचा जबर धक्का सुमतीवहिनीला बसतो व त्यात ती आपण सगळ मानसिक संतुलन हरवून बसते. आपले मूल जिवंत असून भुकेने दुधासाठी रडत आहे असा भास तिच्या मनाला होतो. याचबरोबर विमलची कोमार्यव्यवस्थेतील मैत्रीण प्रिमला हिला ऋतूप्रतपी मासिक पाळी येत नाही याचा तिच्या स्वतःच्या शरीरमनावर तर परिणाम होतोच परंतु सभोवतालचा समाजही तोच तो प्रश्न विचारून तिला त्रास देण्याचा प्रयत्न करतो. स्त्रियांची जीवदृष्ट्या घडणारी क्रिया या घटनेकडे या स्त्रिया स्वाभाविकरीत्या पाहात नाही. एका स्त्रीने दुसऱ्या स्त्रीच्या जीवनातील स्वाभाविक गोष्टीकडे सह"दयतेने अथवा तिच्या या जैविक समस्येकडे भगिनीभाव या नात्यातून पाहिलेले आढळत नाही.

शेवटी १९८० ते २००० या काळातील या प्रितनिधिका स्वरूपात निवडलेल्या या चार दलित स्त्रियांच्या आत्मकथनांचा स्त्रीवादी दृष्टिकोनातून पुनर्वाचन केल्यावर मला पुढील काही निरीक्षणे मांडावीशी वाटतात.

- १) प्रस्तुत आत्मकथनातील दलित स्त्रियांचे शोषण कुटुंबातील स्त्री – पुरुष व सवर्ण या सर्वांकडून होत राहिले.
- २) पुरुषसत्ताक व्यवस्थेमध्ये ती दलित असल्याने तिचे स्थान पुरुषापेक्षाही हीन पातळीवरील आढळते. अपवाद माज्या जन्माची व तीन दगडाची चूल यांसारखी
- ३) भूक, दारिद्र्य, अज्ञान व अंधःश्रद्धा यांचे चित्रण थोडयाफार फरकाने सर्वच आत्मकथनातून आलेले असले तरी प्रत्येकाची विशिष्ट अनुभवाला सामोरी जाण्याची, वैचारिक व भावनिक क्षमता वेगवेगळी आहे.
- ४) अंतःस्फोट सारख्या आत्मकथनाचा अपवाद वगळता अन्यायाविरुद्ध बंड करून उठणारी क्रांतिकारी स्त्री येथे फारसी आढळत नाही.
- ५) सर्व आत्मकथनातील व्यक्तिरेखांची एकुण स्थितिगती पाहता पूर्वार्धात कारुण्यपूर्ण जीवनचित्र दिसते तर उत्तरार्धात एकुण दलित चळवळ, फुले आंबेडकर नेतृत्वाने आलेले स्वत्वाचे भान प्रगट होताना दिसते. यापुढील काळातील दलित स्त्रियांची आत्मकथने ही मात्र सर्व प्रकारच्या परंपरागत रुढी, जुलूमांच्या काचातून मुक्त होऊन अधिक निर्भयपणे, समर्थपणे आपल्या स्वत्वाचा शोध घेतील असा विश्वास वाटतो.



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