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On

Impact of Globalization on Sustainable Development

Published by- Dr. C. B. Kolekar, Principal, Sahakar Maharshi Shankarrao Mohite Patil Mahavidyalaya, Natepute

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A Comparative Study of Population composition in Junnar Tahsil of Pune District:

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Abstract:
The relationship between population and economic growth has always been a matter of debate. There has never been any clear opinion amongst economists about the nature and extent of influence that population has on the economic growth of a region. The economy of the tahsil is dominated by agricultural activities. Due to the accessibility with metropolitan cities like Mumbai and Pune the agriculture of the tahsil has shown remarkable growth and improved level of commercialization. The third stage of demographic transition has observed in the Junnar Tahsil.

Keywords: Population, Growth, Composition

Introduction:-

The socio-economic indicators play a significant role in the development of a region. The present study deals with identifying the regional disparity and imbalances in the levels of development in villages in Mountain and Plain areas. The regional disparity in the levels of development, like population structure, education, health and quality of housing, distribution of goods and services, and access to communication public-utility services are taken into consideration to understand the spatial disparity and to identify the controlling geographical and other important factors which are accountable for such imbalances. The study of population composition is analyzed to find regional development in Junnar tahsil.

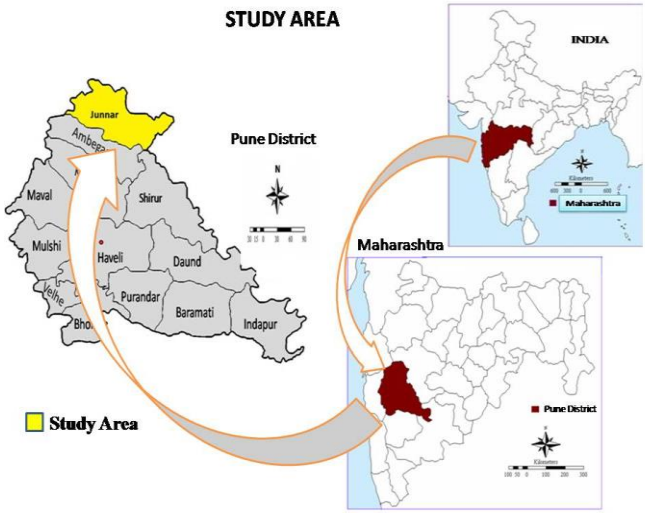
Aims & Objectives:-

The main purpose of study is to understand the relation between Population and Socio-economic and Physio-Climatic condition of study area. The study is based on following objectives.

1. To evaluate the population composition with respect to regional development of study area.

Study area:-

Junnar Tahsil is located in the north part of the Pune district. It occurs in the section of steep slope having rainfall around 50 to 250 cm. The latitudinal extent of the Tahsil is 19° 00' to 19° 24' North and longitudinal extent is 73° 40' to 74° 18' East. The area of the Junnar Tahsil is 1474.77 Sq.km. Junnar is mainly rural in character as 183 villages are there, according to 2011 census. The population of Junnar Tahsil is 3, 99,302. The rural population is 93.66 %, and the urban population is 6.34 %. Junnar is declare as green zone, so there is no industrial development, naturally people are depending on agriculture for their livelihood. The agriculture is major source of income in the Tahsil. Therefore it is interesting to study the facts and factors related types and nature of houses. Study may help in the regional planning of the Tahsil.



Methodology:

A Socio-economic picture gives clear idea about regional development. Survey is the best method to obtain socio-economic data. Fifty villages were undertaken from mountain and plain region in the tahsil. Questionnaire fill up from villagers with random sample method and data collected from reference books, articles, district handbook and. The study involves data collection, compilation, computation, analysis and interpretation of the basic data and it represent with the help of cartographic techniques.

Population Composition:

The population composition is part of the social environment. It gives a framework against which to interpret the health status and behavior of the population. Population composition is the description of age and sex of the population. These data are often compared over time by using population pyramid.

Table No. 4.1 Age Sex Group of Mountain Region and Plain Region

	Mountain Region		Plain Region	
Age Group	Male %	Female %	Male %	Female %
0-4	3.94	4.55	3.98	4.83
5-9	5.28	5.30	5.37	4.87
9-14	4.81	4.37	6.04	4.52
15-19	10.96	11.10	9.01	8.50
20-24	10.38	11.17	10.37	9.66
25-29	10.67	10.48	9.29	8.19
30-34	8.75	8.30	6.86	7.98
35-39	6.90	7.55	7.18	8.46
40-44	7.13	8.36	7.24	7.78
45-49	7.36	7.61	7.33	7.57
50-54	6.72	4.62	6.42	5.38
55-59	4.81	4.99	4.87	5.41
60-64	4.35	4.12	5.03	5.59
65-69	3.59	3.24	3.98	4.52
70 & above	4.35	4.24	7.02	6.85

Source: Writer

The above table shows the age and sex composition of the population living in the mountain region and plain region. The male and female population shows in the percentage. The data shows that the number of population is greater in the age group from 15 to 60 and less in the age group o to 14 and 60 to 70. The population above 70 is higher in the plain region as compared to the mountain region. This shows that life expectancy is more in the plain region than in the mountain region. The population in the age group below 14 is less as compared to age up to 54. This shows that there is a slow growth rate of population in both regions. The working population is higher than the dependent population. This shows the third stage of demographic transition in the tahsil. The male population is higher than the female population in the mountain and plain region. This represents the unequal sex ratio in the tahsil. The male population is higher than the female population.

Figure No. 1 Age Sex Pyramid of Mountain Region

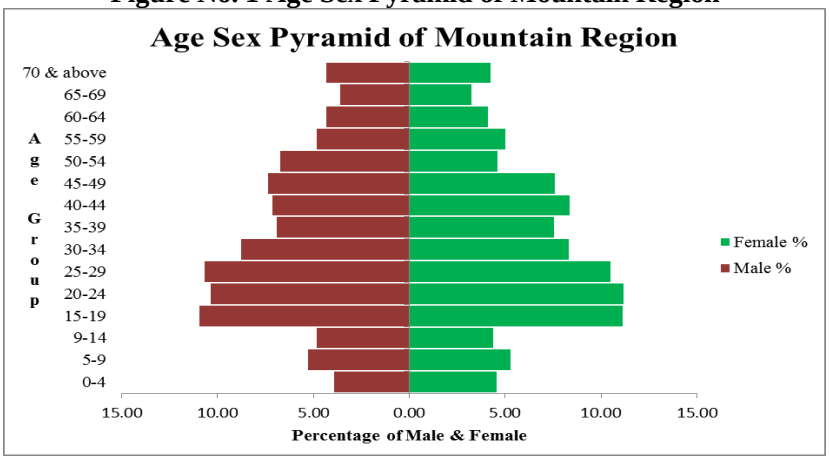
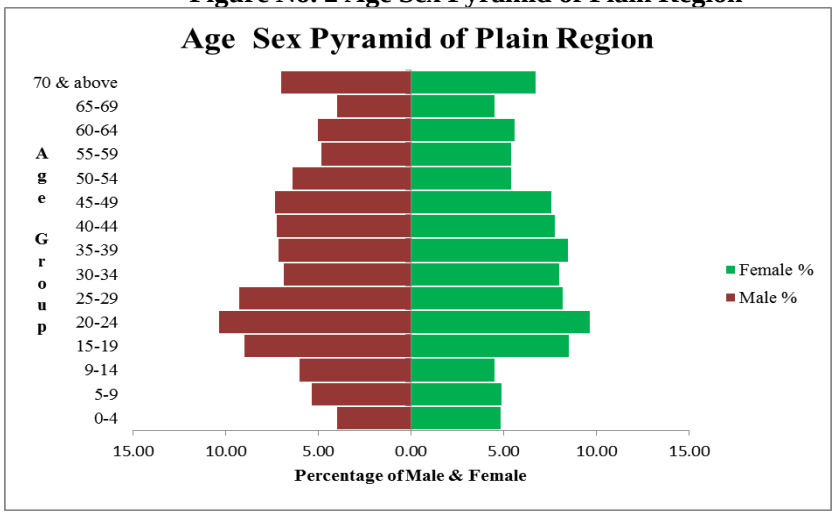


Figure No. 2 Age Sex Pyramid of Plain Region



Conclusion:

Population composition can be used to visualize the age of a particular population. Both the age-sex pyramids of the mountain and the plain region shows a negative growth rate in the Tahsil. That means the birth rate is less in both region. The working population is more than the dependent population. This is a good sign of the control size and growth of the population in the tahsil. Both pyramids show the third stage of demographic transition, which represents a developing stage of the region.

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The Impact of Globalization on Indian Culture and Literature:

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Abstract:

The present research paper will focus on the impact of 'Globalization' on Indian culture and literature with reference to Shashi Deshpande's novel *Roots and Shadows.* As we know the term globalization has occupied each and every field especially in the world of economy. But this term globalization has also created an impact on the field of culture and literature. Here we can see the impact of globalization in the Indian Literature and Culture. Really the term 'Globalization' has widened the scope of thinking and learning by providing innovative ideas from the different countries and of their culture. There are various themes of globalization in Indian literature also. Indian literature has created its own identity in the world of literature through Indian traditions, customs and culture. With an emergence of the term globalization the whole world is transforming by accepting the new innovative ideas and ideals. Thus we can see the impact of the process of globalization is in all the fields. So literature is not also exception to this process of globalization. In this world wide process the Indian literature and culture has also accepted this process of transformation. The impact of this process of globalization has also reflected in all Indian regional language literature. Thus the emergence of globalization in the Indian literature has created a new identity. This present paper focuses on the positive effects of globalization with the special reference to the novel *Roots and Shadow's chief* protagonist, Indu. Shashi Deshpande has observed the changes in the cultural, traditional life styles and customs of the people because of this process of globalization. She has tried to focus upon the social and cultural effects of globalization through the character of Indu. Thus the emergence of globalization in India has created various opportunities particularly to the class of women in the field of higher education, their rights, freedom and so on.Shashi Deshpande's novel *Roots and Shadows* is the story of a woman named Indu, who is torn between different forces that affects her life. Indu, the chief protagonist of this novel fights with courage and determination for her quest for self identity. Because of this process of globalization Indu has become successful in completing her dream of higher education and to oppose the age old traditions and customs concerned particularly to the class of women in India. Thus the process of globalization has provided a new world of light and hope in the life of women in Indian Culture and Society.

Keywords: Globalization, Indian Literature, Impact, Traditions, Culture, Society, Education.

Introduction:

The term 'Globalization' has different meanings and types. It is derived from the word 'globalize' which means an emergence of the international network of economic systems. Its popular definition is as, "Globalization means the speed up of movements and exchanges (of human beings, goods and services, capital, technologies or cultural practices) all over the planet. One of the effects of globalization is that it promotes and increases interactions between different regions and populations around the world."[1] (Web Page) The advances in transportation and communication technology have been responsible for the growth of globalization all over the world. Thus the international trade, ideas and culture has been grown through this world wide interaction. At the outset globalization has closely related to the economic process of interaction which is associated with social and cultural aspects. According to Manfred B. Steger's point of view the term globalization has been used in academic literature to describe a process, a condition, a system, a force and an age. It clearly shows that the term globalization is not related only to the trade and economy but it has been stated to use in connection with literature and culture since 1960. In this way we can have a definition of the term globalization as "an extensive network of economic, cultural, social and political interconnections and process which goes beyond national boundaries."[2] (Web Page). Thus globalization has removed the barriers in front of the world trade markets, socio-cultural issues and political ideologies also. Thus the global markets have liberated the economic activities of exchanging goods, funds, socio-cultural ideas, philosophy, political issues and so on. The argument of Sheila L. Croucher about globalization is that "globalization can be described as a process by which the people of the world are unified into a single society and function together. This process is a combination of economic, technological, socio-cultural and political forces."[3](Web Page) Now, we realized that the term

globalization is not restricted to the trade and economy only but it has come into the form of cultural globalization. Through the process of this globalization the transmission of ideas, philosophy, meaning and values of life around the world are referred and focused emphatically. The interaction of various cultures of the world has created new fields to think on for the intellectual authors. Because of this globalization it has become easy to the authors to enrich the new ideas and philosophy in Indian literature particularly. Through globalization the writers of India has spread the Indian culture, traditions, customs, philosophy and the Indian life throughout the world. It has created this great opportunity to spread our culture as well as to accept the foreign culture which is of our use. In the novel *Roots and Shadows*, Shashi Deshpande has applied the global policy of education to women, their rights, freedom for survival, and women's desire for an employment. By this globalization the place of women in India has become more secure and mainly they have been attracted towards education and employment which was not permitted to them by their age-old traditions. The nature of women has been changed and they have started to participate in the social issues very actively. The Cultural and Social globalization have created an awareness and interest among the people of India to study the cultural aspects of the other countries. Indian literature and culture have not remained away from this process of transformation. But the entry of globalization has loosened the shackles of age old traditions and customs in the Indian context.

Impact of Globalization on *Roots and Shadows:*

The emergence of globalization has created a great impact all over the world and in India also. It is one kind of revolution against the age old traditions and customs in the Indian context. The exchange of thoughts and ideas has created a great change in the behavior, living standard and life style of the people especially in India and whole world also. Many women writers have broken the past literary traditions and customs. They started to transform their own experience as a 'woman' through the medium of literature. During this period the women of middle class accepted the philosophy, idea and ideals of globalization positively for their own existence. These middle class women and women writers were more concerned with their individual progress and existence by opposing the very age old customs and traditions. In this way the submissive nature of women has been changed into aggressive nature against injustice.Shashi Deshpande belongs to that great class of Indian women novelists, who live in India and write in English like Manju Kapur, Arundhati Roy, Githa Hariharan, Anita Desai and Shobha De. These major women novelists present in their writings the realistic, social, family problems, economic and political conditions, which are very special to the Indian life and culture. Shashi Deshpande's novel *Roots and Shadows* is the story of a woman named Indu, who is the chief protagonist of the novel, and torn between different forces that affect her life. With courage and determination Indu fights to create her own identity. She fights to complete her desire to be academically higher, her dream to be independent by breaking all the traditional boundaries as well as her honest attempt to shape her own destiny are the major things of the novel. The present paper attempts to focus on the impact of globalization on the novel *Roots and Shadows* through the character of Indu. Indu struggles to create her own identity in this male dominated society by opposing the age old traditions. Shashi Deshpande, the novelist has mirrored the efforts taken by Indu to come out of the shackles of the old customs and traditions of the so called society. Indu, the chief protagonist of the novel is fixed between Tradition and Modernity. She tries her best to find out her own identity by breaking the very age old traditions and customs of the era.Indu's mother died at childbirth. So that she was brought up by her Kaka and Atya. She started to live under the rules of Akka, a widowed sister of Indu's grandfather. Practically, Akka lived there as a dictator. Indu was called there by Akka after ten years gap of her marriage. Because, Indu got married against the family rules and expectations with Jayant, a boy from different caste with her own choice. When Indu visited the house of Akka, the same night Akka died because of old age. In the written will of Akka whole of the property was on the name of Indu. Akka gave promise to finance the marriage of Mini. The marriage of Mini was also fixed by the elders of the family without her consent. It is a male dominated society where there is no choice to woman. Mini expresses her view about marriage as: "What was marriage after all, but two people brought together after cold blooded bargaining to meet, mate and reproduce so that the generations might continue."(e- Edition – Location- 45)

Indu has her own pattern of life and principles. She revolts against the old and wrong traditional views by marrying with Jayant of her own choice. Especially the people of the house where she brought up and of the view that:"The women had no choice but to submit, to accept. And I had often wondered…….have they been born without wills, or have their wills atrophied through a lifetime of disuse?" (e-Edition- Location-82) Indu always loves to the new and innovative ideas related to the freedom of women. She is not ready to live life in a pattern which has been used by this old orthodox

society. Indu realizes through the conversation with Mini one reality of this age old society, that they have not given any choice especially to women class. Women must obey the orders of the men and follow the pattern of male dominated society. In that era women didn't have any choice to select a proper husband for their life. Thus to live with these age old traditions means to spend whole of life in the cage: "But years of blindfolding can obscure your vision so that you no more see the choices. Years of shackling can hamper your movement so that you can no more move out of your cage of no choices." (e-Edition-1645)Such a kind of life was not expected to live according to Indu's point of view. She rebels against this system. Induexpresses here her zeal for education. Though the girls are expecting to be highly educated by attending the schools, the family members especially men were not ready to pay more attention towards their demands. Women didn't have any right to be educated. They must look after the family work and kitchen. But when the turn of son's education comes there the male members become so active and attentive about their education. They personally pay attention towards their education. It always happens in the family of Indu. Her family atmosphere was not good for women. Being a woman, they didn't have any right to participate in family matters and decision making activity. So that she decides to be independent and complete from family and society. Anyway to achieve her own completeness in life she gets married with Jayant who is of her own choice: "This is my real sorrow. That I can never be complete in myself. Until I had met Jayant I had not known it……. That there was, somewhere outside me, a part of me without which I remained incomplete. Then I met Jayant. And lost the ability to be alone." (e-Edition-419)Indu marries with Jayant of her own choice and leaves her home to be complete and independent. She hopes that her marriage with Jayant will fulfill her desire to be loved and needed. But soon she realizes that she has walked into another trap. She expresses: "But twice in my life I had thought that I was free. Once, when I left home as a young girl. And the second time, when, once again I left the family after Naren's death and returned to Jayant. Both times I found out how wrong I was." (e-Edition- 195) Because now Indu realized that it is system that she breaks the old bond of family and society and finds the new bond of society. It is a new trapping for herself. Actually Indu thinks that by breaking away the family and its orthodox bond, she can find out her own root. It is her dream. But lastly she discovers that these family bonds are the root of one's being and keep on reflecting as like shadows. Actually Indu's inner quest is that she must be loved by her husband. She expects always only love which is at the centre of her heart. "I want to be loved, I want to be happy. The cries are now stilled. Not because I am satisfied or yet hopeless, but because such demands now seem to me to be an exercise in futility. Neither love nor happiness come to us for the asking. But they can sneak up on us when we least expect them." (e-Edition- Location-182) Indu wants to show the whole society and her family that her married life is happy one and a great success. She expresses her inner feeling that she has become one with Jayant not because of love but she doesn't want a conflict.

Conclusion:

The globalization has provided such a great platform to the Indian women. Shashi Deshpande very successfully applied the features of globalization through this novel. Throughout the novel *Roots and Shadows*, Shashi Deshpande represents the impact of globalization on the Indian literature and culture. It has made radical changes in the cultural and social life of India. It has depicted through the novel very realistically.

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Impact of Excessive Use of Water, Air and Soil in Sustainable Development

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Sustainable Development has become essential to the event of most countries like India, America, Japan, England etc. Sustainable Development marked implications for both the short- and long-term survival of somebody's being. The concept of sustainable development has become essential to the event of most countries last fifteen years . Although Scholars note that sustainable development as a term is commonly difficult to define and explain, most intelligent person appear to agree that sustainable development specifically refers to "development that meets the requirements of the current without compromising the flexibility of future generations to satisfy their own needs". What this effectively suggests is that governments have to find cohesive and cooperative ways to satisfy their immediate needs while ensuring that the long-term needs of the country is met.

The concept of sustainable development is one that appears to own marked implications for both the short- and long-term survival of a life, the truth is that the progress and implementation of policy toward the top of sustainable development has proven to be an elusive aim. While various nongovernmental organizations (NGOs) like the India and therefore the other countries have put forth initiatives toward the goal of sustainable development, these initiatives have done little to boost environmental outcomes for several countries e.g. India, America, Japan etc. As such, this research considers what steps should be taken to make sure sustainable development within the international community. By developing a policy and examining the obstacles to successful implementation. Sustainable Development are going to be possible to demonstrate both the difficulties of achieving sustainable development furthermore because the actions that require to be taken to confirm a positive outcome a couple of sustainable development.

Sustainable development could be a term first coined in 1987 to explain the continuing ability of people in general to fulfill their present needs without compromising the likelihood of existence for future generations the thought of sustainable development includes aspects of economics, politics, social development, and mostly environmental concerns.

Sustainable development deals with the relationships that persons have with the environment. the supply of fresh water, air, adequate food and shelter must be balanced between preserving their existence and providing for the growing number of individuals on the world. Sustainability depends upon a consumption of renewable resources that's adequate the planet's ability to renew or recreate those resources.

One of the key areas of sustainable development within the industrialized world is that of transportation like Two-Wheeler, Four-Wheeler, otherwise referred to as automobiles, are accountable for large amounts of greenhouse emission emissions and increase pollution. By encouraging public transportation, walking, and increasing the price to have an automobile, the Indian government is seeking to lower emissions.

Sustainability theories are dependent upon the thought of managing three kinds of capital: economic, social, and natural. The reduction of natural resources, as an example, can't be recreate, and should result in an attach point that produces current levels of existence unsustainable within the future or next generation.

Most of India People or other country citizen, unnecessary water use not only contributes to local water shortages, but also adds to the degree of wastewater that has to be treated by septic tanks or sewage treatment plants. As a result, excessive water use contributes to higher bills for energy, water, and sewer services. Wasting water is really harmful for the environment. There are ecocentrism anthropocentric, biocentric, reasons why wasting water is bad.

Fresh water is a very important resource for the survival of our individuals. Seeing as but 1 percent of the world's water is freshwater and available for us to, there are limitations that factor into our carrying capacity as a person's beings on Earth, including the supply and distribution of freshwater. Various countries like India, America, Japan are endowed with different stocks of freshwater, and betting on their renew or recrate rate and usage rate, each has varying degrees of water scarcity that require to be

addressed.

Wasting water during a country where it should appear water just magically comes out of the faucet e.g. Canada, the U.S., Japan, India, is wasting a precious, important resource that millions (about 663 million) don't even have clean, safe access to. Furthermore, in places where clean water is scarce, overusing or wasting household water limits the supply of it for other communities to use for cleaning, cooking, drinking, or growing—and it contributes to illness, starvation, disease, or agricultural scarcity .You could attach the economic incentive to avoid wasting water, because it means lower household water utility bills, one in every of the biggest or greatest incentives for waterwise individuals or households to conserve water. during a research in biocentric, other species depend upon freshwater besides humans as a very important component to their survival! Overuse of freshwater in household settings means there's less water for agricultural use which affects human or animate on a food scarcity level, but many livestock species depend on freshwater. Also, as we divert more freshwater from aquatic environments to supplement agriculturally, many plant and animal species are threatened or can become endangered. Despite our attempts to separate man from environment, we are indeed a part of one ecosystem within the biosphere, and reliant on plants and animals; therefore, sharing and properly adjust our most precious resource is very important. within the research ecocentrism, wasting water while our demand for water increases but as population and standards of living increase globally. It means we want to supplement for this lack of freshwater or purified water by pulling it out of aquifers or groundwater supplies within which the regeneration or renew rate is not up to the extraction rate. This unsustainable practice decreases long-term water security and availability of water within the earth. Furthermore, and almost most significantly, water takes lots of time, money and energy, to filter or purified and clean so it's drinkable or usable. Overusing household water or wasting water means you're wasting the energy-intensive process of filtration or purification. the various steps of this process—transportation, filtration, Purification extraction, etc. It needs nonrenewable fossil fuels and as these resources become depleted, their dangerous by-products like greenhouse gas build up within the Earth's atmosphere or environment contributing to your carbon footprint and also the Earth's rising temperatures. If you sustain water for future generation we've to require care of assorted things like every person must be check for bathroom leaks or waste of water and by putting food product into the tank. If colored water appears after half-hour without flushing, there's a leak. It should be repaired. Then one and all be sure while visiting tour or trip, close up water and your predicament heater. This precaution helps to save lots of water. Every creature should take short showers rather than baths. it'll also help to save lots of some water. Most of woman or men do run water continuously when washing dishes, shaving, brushing teeth, etc. Don't try this rather than it when water is required that point you've got to change on the spigot. Now a days technology developed, The water conserving shower available in market, Everyone can buy these shower and installed at their bathroom, it'll also save water. Every creature should run dishwasher and garments washers only if you have got a full load. Low volume toilet also save water. Everyone should install it.

Air pollution may be described as an alteration of air quality which will be featured by measurements of chemical, biological or physical pollutants within the air. Therefore, pollution means the undesirable presence of impurities or the abnormal rise within the proportion of some constituents of the atmosphere. It will be classified in two sections; first section could also be visible and second invisible pollution. pollution is caused by the presence within the atmosphere of toxic substances, mainly produced by human activities, although sometimes it may end up from natural phenomena like volcanic eruptions, dust storms and wildfires, also depleting the air quality. Combustion of fossil fuels, like coal and oil for electricity and road transport, producing air pollutants like nitrogen and dioxide. Emissions from factories and industries, releasing grater amount of carbon monoxide gas, hydrocarbon, chemicals and organic compounds into the air. Agricultural activities, thanks to the utilization of pesticides, insecticides, and fertilizers that emit harmful chemicals. Waste production, mostly due to methane generation in landfills. These are could also be cause for to keep up sustainable development. If we would like future generation live a healthy life. we've to require precautions like renewable fuel and clean energy production, the foremost basic solution for pollution is to maneuver faraway from fossil fuels, replacing them with alternative energies like solar, wind and geothermal. Secondly energy conservation and efficiency, it leads a producing clean energy is crucial. But equally important is to cut back our consumption of energy by adopting responsible habits and using more efficient devices. If we would like save a rustic from pollution we've got to use eco-friendly transportation, shifting to electric vehicles and hydrogen vehicles, and promoting shared mobility for instance carpooling, and public transports. It could reduce pollution. we've got built green building. From attending to demolition, green building

aims to form environmentally responsible and resource-efficient structures to scale back their carbon footprint.

Fertilizers are added to crops so as to supply enough food to feed the human population. Fertilizers provide crops with nutrients like potassium, phosphorus, and nitrogen, which permit crops to grow bigger, faster, and to provide more food. Nitrogen specifically is a vital nutrient for the expansion of each organism on Earth. Nitrogen is all around us and makes up about 78% of the air you breathe. However, plants and animals cannot use the nitrogen gas within the air. To grow, plants require nitrogen compounds from the soil, which may be produced naturally or be provided by fertilizers. However, applying excessive amounts of fertilizer ends up in the discharge of harmful greenhouse gases into the atmosphere and also the eutrophication of our waterways. Scientists are currently trying to search out solutions to scale back the environmentally harmful effects of fertilizers, without reducing the number of food we will produce when using them.

Nitrogen is one among the weather, or nutrients, that everyone living things (microorganisms, plants, and animals) must grow. Although, there's lots of nitrogen all around us (~78% of the air we breathe), most of the nitrogen on Earth is present as a colorless and odorless gas, called nitrogen gas (N2). Unfortunately, plants and animals cannot directly use nitrogen gas. As humans, we get our nitrogen from the food we eat. High protein foods like meat, fish, nuts, or beans are high in nitrogen. Plants get their nitrogen from the soil and nitrogen is that the most typical nutrient to limit plant growth. There are two ways nitrogen gas is of course transformed or "fixed" into nitrogen-containing compounds that may find yourself in soil, without human intervention. Some soil microorganisms can transform nitrogen provided in fertilizers into nitrogen-containing gases, which get released into the atmosphere just like the gas inhalation an aesthetic (N2O).

Greenhouse gases are one amongst the most factors accelerating warming. laughing gas features a warming potential ~300 times greater than the foremost commonly mentioned greenhouse emission, carbonic acid gas (CO2).Eutrophication is an unwanted fertilization of a waterway and it promotes the expansion of microorganisms, algae, and plants, similar to the fertilization of soil. However, the fast growth of microorganisms and plants can expend all the oxygen in these waterways and switch them into so-called dead zones, because aquatic animals cannot live without oxygen. Eutrophication may also result in the expansion of algal species that produce toxic chemicals, called harmful algal blooms, While we want nitrogen from fertilizers in our agricultural soils, we don't need or want additional nitrogen in our atmosphere or waterways. this implies we've got to balance the positive benefits of nitrogen fertilization (more food) with the negative consequences of excess fertilizer (environmental problems) . Scientists are currently working to seek out this balance to boost our current situation.

In this way, pollution, pollution and excessive use of crops in an exceedingly soil, is also caused for sustainable development. If we want, the following generation live healthy, we must follow or apply some precaution in day-today life. It results in maintain healthy atmosphere.

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The Use of ICT Tools in the Teaching and Learning Process: An Impact of Globalization

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Abstract:

The present research paper will focus on the impact of globalization on the Teaching Learning Process. The present era is changing very fast by accepting the new principles of the use of ICT Tools especially in the field of Teaching and Learning Process. It is a positive effect of the term globalization. Actually globalization has occupied each and every field in the world of economy but it has very closely related to the field of teaching and learning also. The term globalization is applied to the field of education very effectively particularly in the process of teaching and learning. Globalization has widened the scope of thinking and learning with the help of innovative ideas from the different countries. Thus the emergence of globalization in the whole world is transforming by accepting new ideas, ideals and technological tools. The use of Information Communication and Technology in the teaching and learning process has created a very great revolution. Because the use of this technology, it has become easy to each and everyone to access the world wide knowledge and recent changes in the field of education particularly. The technology that is used for the purpose of facilitating educational process of teaching and learning is called educational technology. Thus the present paper will focus upon the positive effects of use of ICT especially in the teaching and learning process. It has really strengthened the field of teaching and learning.

Keywords: ICT, Tools, Teaching, Learning, Education, Globalization.

The Use of ICT Tools In The Teaching and Learning Process

Introduction:

At the outset it is very important here to take into consideration the concept of 'Globalization'. The term 'Globalization' has different meanings and types. It is derived from the word 'globalize' which means an emergence of the international network of economic systems. Its popular definition is as, "Globalization means the speed up of movements and exchanges (of human beings, goods and services, capital, technologies or cultural practices) all over the planet. One of the effects of globalization is that it promotes and increases interactions between different regions and populations around the world."[1] (Web Page) The advances in transportation and communication technology have been responsible for the growth of globalization all over the world. Thus the international trade, ideas and culture has been grown through this world wide interaction. At the outset globalization has closely related to the economic process of interaction which is associated with social and cultural aspects. According to Manfred B. Steger's point of view the term globalization has been used in academic literature to describe a process, a condition, a system, a force and an age. It clearly shows that the term globalization is not related only to the trade and economy but it has been stated to use in connection with literature and culture since 1960. In this way we can have a definition of the term globalization as "an extensive network of economic, cultural, social and political interconnections and process which goes beyond national boundaries."[2] (Web Page) Thus globalization has removed the barriers in front of the world trade markets, socio-cultural issues and political ideologies also. Thus the global markets have liberated the economic activities of exchanging goods, funds, socio-cultural ideas, philosophy, political issues and so on. The argument of Sheila L. Croucher about globalization is that "globalization can be described as a process by which the people of the world are unified into a single society and function together. This process is a combination of economic, technological, socio-cultural and political forces."[3](Web Page) We can realize that the term globalization is not only restricted to the trade and economy but it has come into the form of cultural globalization through which the transmission of ideas, philosophy, meaning and values of life around the world are referred and focused emphatically. The interaction of various cultures of the world has created new fields to think on for the intellectual authors.Now here we can understand that the term globalization is not only restricted to the trade and economy but it has come into the form of the use of global educational technology that is related to the field of teaching and learning. This global technology has become very useful for transmission of ideas, use of ICT, philosophy, meaning and values of life around the world. Because of this process of globalization it has become easy to intellectuals and teachers in India

to enrich their knowledge with new ideas, ideals, technology and philosophy especially in the field of teaching and learning. The process of globalization has provided the great opportunity particularly to the intellectuals and teachers of India to spread their ideas and ideals throughout the world. In the educational technology, humans and machines both have their respective roles and work as complements to each other in the process of teaching and learning. Man uses his intellectual power and experiences along with the machines. He organizes the teaching and learning process by using his arts. The use of ICT is the science of strategies and techniques that leads to the educational goals. According to Dr. Kasturiranjan, a very great scientist of India has observed that global development over the past two centuries have already demonstrated that the central role of advances in science and technology and their applications in the social, economics, educational and cultural transformation of the world is tremendous. The impact of technology can be found in every part of the human life. The use of ICT and various educational tools such as assignments and computer have made the teaching and learning process very productive and meaningful. The appropriate use of ICT has transformed the whole process of teaching and learning, in content and teaching methodology. Thus the use of ICT in the field of education has impacted greatly to improve the quality of education. Use of ICT in teaching and learning process can help us to make education more accessible and affordable. The most important advantage of the use of ICT in teaching and learning process is to make well preparation of the content as well as technology. The teachers and students who are techno savvy can possess the desired competencies to use ICT very effectively. Use of ICT tools plays a very significant role in teaching and learning process. It is having so many characteristics that are useful as well as interesting during the time of presentation of a subject. We can make the use of picture, graphs, diagrams, sound, music, colors, shapes and Three D effects to create more liveliness in the subject. While we make use of a 'Picture' during the time of presentation, it can do a work of Hundred Words. It focuses only on the important elements or things of the subject. Teaching and learning through the medium of use of ICT tools have become very easy to explain as well as to understand. The use of ICT includes Television, PPT, OHP, Computers, Internet and so on. The computers play a very significant role in the teaching and learning process. The computers are helpful in teaching and learning process which requires significant interaction for that instructional software should be highly interactive. Interactive learning environments are called Intelligent Testing System. To make the teaching and learning process very interesting and effective, the use of Power Point Presentation, Word Excel, Graphics, and Animation can be utilized. Computers are very helpful in explaining complex processes and problems. So that computers are supposed to be useful for teaching, learning, problem solving and decision making skills.

There are some very interesting and useful learning technologies as following:

A blog (a truncation of "weblog") is **a discussion or informational website published on the World Wide Web consisting of discrete, often informal diary-style text entries (posts)**. Posts are typically displayed in reverse chronological order, so that the most recent post appears first, at the top of the web page.

Integrated learning

A modern-day method that can be applied is integrated learning. Integrated learning means **combining what students learn in the classroom, with the solution of real-world problems**.

Podcast :

Put simply, a podcast is **a series of episodes**. These episodes are audio files that are likely stored with a podcast hosting company. Another great thing about podcasts is that you can subscribe to them, which makes it easy to get notified (via your favorite podcast app) when new episodes come out.

Wikis:

A **wiki** (/ˈwiki/(listen) *WIK-ee*) is a hypertext publication collaboratively edited and managed by its own audience directly using a web browser. A typical wiki contains multiple pages for the subjects or scope of the project and could be either open to the public or limited to use within an organization for maintaining its internal knowledge base.Wikis are enabled by wiki software, otherwise known as wiki engines. A wiki engine, being a form of a content management system, differs from other web-based systems such as blog software, in that the content is created without any defined owner or leader, and wikis have little inherent structure, allowing structure to emerge according to the needs of the users. Wiki engines usually allow content to be written using a simplified markup language and sometimes edited with the help of a rich-text editor. There are dozens of different wiki engines in use, both stand alone and part of other software, such as bug tracking systems. Some wiki engines are open source, whereas others are proprietary. Some permit control over different functions (levels of access); for example, editing rights

may permit changing, adding, or removing material. Others may permit access without enforcing access control. Other rules may be imposed to organize content.

Websites:

Web –sites which are very popular with teachers and students are Google, Yahoo, Gmail, Rediffmail, Wickipedia. The modern concepts of ICT have helped professionals to cope the challenges for digital information and technology through the development of digital literacy resources.

Conclusion:

Thus the use of ICT tools in teaching and learning process will give a boost. It will help people in the remotest parts of the country to avail education and fulfill their dreams. The influence of this new education system will be helpful in building and development of the country. Lastly I would like to note here that the research scholars can make use of ICT tools to carry forward their research programme. They not only can have to access the works done in their field of interest but also use of ICT tools in presenting papers during the time of conferences, seminars and discussions. Thus as compared to the traditional teaching and learning method, these are the modern teaching aids or tools that create the interest in the Teaching - Learning Process.

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Brutality of Afghanistan War and Its Impact

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Abstract

Fiction has been changing. The issues and its relevance have also been changing. The civil wars in the different parts of the world are making it change. The war and its effects are represented not only through the writings of common writers but it is also shown through the writings of the target people as well as military persons. The Taliban Afghan war, bomb blasts in the different parts of the world, civil wars is vomiting blood through words.

Dead Men Risen is written by Toby Harnden the winner of the 2012 Orwell Book Prize.

Dead Men Risen was published by Quercus in March 2011.

Introduction

It became a Sunday Times bestseller and won the 2012 Orwell prize for Books, Britain's premier award for political writing. An American edition is due to be published in 2014.*Dead Men Risen*is the tale of the Welsh Guards in Helmand in 2009. Underequipped and overstretched, guardsmen from the coal mining valleys and quarry villages of Wales found themselves in Helmand in some of the most intense fighting by British troops for more than a generation. They were confronted by a Taliban enemy they seldom saw, facing the constant threat of Improvised Explosive Devices and ambush. Leading them into battle was Lieutenant Colonel Rupert Thorneloe, destined to be a general. He was passionate believer in the war but was dismayed by how it was being conducted.It is a book that unnerved politicians and generals alike. In chilling detail, it reveals how and why Thorneloe was killed by an IED during Operation Panther's Claw. The author, who had known Thorneloe since they first met in Northern Ireland in 1996, was on the ground in Helmand with the Welsh Guards. He drew on a trove of secret documents, including many by Thorneloe, the first British battalion commander to die in action since the Falklands war of 1982. Major Sean Birchall left behind an unvarnished account of the shortcomings of the Afghan forces that represent Nato's exit strategy.

Objective - To Study of Brutality of Afghanistan War and Its Impact

Lieutenant Mark Evison wrote a diary that raises questions from beyond the grave. It was more than half a century since a British battalion had lost officers at these three key levels of leadership. A visceral and timeless account of men at war, *Dead Men Risen* conveys what it is like to be a soldier who has to kill, face paralysing fear and watch comrades perish in agony. Given unprecedented access to the Welsh Guards, Harnden conducted more than 300 interviews in Afghanistan, England and Wales. From the searing heat of the poppy fields and mud compounds of Helmand to the dreaded knock on the door back home, the reader is transported there. Harnden weaves the experiences of the guardsmen and their loved ones into an unsparing narrative that sits alongside a piercing analysis of military strategy. Despite the horrors and the heartache, the Welsh Guards fought with astonishing bravery in Nad-e Ali, Sangin and on the Shamalan Canal, as well as waging a daring counter-insurgency campaign in Chah-e Anjir. No other book about modern conflict succeeds at so many levels. *Dead Men Risen* is essential for anyone who wants to learn the reality of Britain's war in Afghanistan.In his history of the Irish Guards from 1914 to 1918, Rudyard Kipling wrote of the difficulties of retrieving sure facts from 'the whirlpool of war.' Some things that at first looked straightforward when the author was on the ground in Helmand with the Welsh Guards now appear much more complicated. Areas of near conviction in his mind then were shrouded in uncertainty.Kipling's two-volume work included the death of his only son John, a lieutenant who perished in September 1915 at Loos, the first battle in which the Welsh Guards fought. Men grow doubtful or oversure, and, in all good faith, give directly opposed versions', he wrote. Sifting through 'the personal prejudices and misunderstandings of men under heavy strain, carrying clouded memories of orders half given or half heard, amid scenes that pass like nightmares' was, he found, a task replete with pitfalls. The more he learned, the more difficult it became to establish what really happened because 'the end of laborious enquiry is too often the opening of fresh confusion.'This has been the author's experience over the course of nearly 18 months spent researching Dead Men Risen. During that time he conducted some 246 hours of audio-recorded interviews with more than 260 people, predominantly in Afghanistan, Wales and England. Many were interviewed several times. A number of further interviews were done on a

background basis with no recording. 2,374 military documents made available tohim and drew on other sources including letters, diaries, emails, videos, Royal Military Police reports and the proceedings of coroner's inquests. Acknowledgements of those who have assisted him appear after the main text.

The narrator of Robert Louis Stevenson's Treasure Island sought to present 'the whole particulars' of what happened from the beginning to the end, keeping nothing back but the bearings of the island'. In this case, the bearings of the island are those matters that could endanger the operational security of British troops. To protect the safety of those in Afghinistan and for legal reason a number of redactions have been made at the Mod's request and appear as black-out passages. For reasons of personal security or privacy or at their own request, a number people are identified only by a pseudonym. These appear as Guardsman Ed Carew, Corporal Chris Fitzgerald, Private Wayne Gorrod, Lieutenant Piers Lowry, Trooper Jeremy Murray, Rifleman Mark Osmond, Serjeant Tom Potter, Captain Richard Sheehan and Guardsman Gavin Wynne.Dead Men Risen should be read with close reference to the maps at the start of the book and the plans of incidents that appear alongside the text. Appendices outline the structure of the Battle Group and highlight the principal figures.At the head of that list is the name of Lieutenant Colonel Rupert Thorneloe, who became a friend of the author in Northern Ireland in the late 1990s, when Toby Harnden was a journalist and he was a military intelligence officer. After Harnden first visited Helmand at the start of 2006, before British troops had begun to arrive, he stopped in Kabul on his way home. He went to the bleak, snow-covered British Cemetery, where crumbling tombstones recalled the men who had fought for Queen and Empire of Afghanistan only to be, in the words of Kipling, 'left on Afghanistan's plains' to go to their Gawd like a soldier. Days earlier in Helmand, an American development official had predicted to the author that British troops would get hit on the roads, while an Afghan warlord told him that some still sought vengeance for the wars of the nineteenth century. Soon, Harnden reflected in print, there would be new memorials for those from another generation of courageous Britons who would be cut down by the Pashtuns. When Harnden went to the cemetery again in early 2010, Rupert Thorneloe's name had just been carved on a marble tablet. By the end of that year, a total of 348 British troops had been killed in Afghanistan since 2002.Nothing in these pages is intended to pass judgement on any of those who fought in Helmand. War is messy and frightening. Rare is the soldier throughout history who ever possessed all the information need to make the right decision, the optimum plan or all the equipment desired to carry out that plan. For most troops in Helmand, facing each new day required an act of bravery to function despite the knowledge that it might well be their last. They gave their al and did what they thought was right. When they returned, their loved ones welcomed back a different person.This is a story of the Welsh Guards, of the British Army and of Afghanistan. It is both a privilege and a responsibility to be able to tell it.The Thorneloe family, like all the families of the fallen, was left with a deep void in their lives that could never be filled. After the Welsh Guards memorial service, John Thorneloe spoke to a local mayor whose son had been killed in Northern Ireland. 'How long does it take to recover?' he asked the mayor, 'Your never will,' he replied. Time did blunt the grief. 'I'm much more at ease when I'm talking about him,' said Major Thorneloe, speaking six months after his son's death. 'But I just never stop thinking about him. Whereever I go, I see him.'Victims of war may have to struggle with whether recovery and acceptance are merely markers of their own impotence and humiliation or whether, worse still, they are an acquiescence in injustice by themselves, by people they know, and, frequently, by the Western led world order that, behind the rhetorical screen of human rights, retains the real politics of business as usual. Trauma programmes certainly can be seen cynically by those for whom they are intended, they can be experienced as patronizing or indeed as a form of pacification. In Bosnia, people derisively referred to the aid delivered to them through a model that did not offer physical protection, restitution, or justice as bread and counseling.Children affected by war are often reported as being brutalized. The implication is of damaged psychologies and moral norms and of diminished humanity. The United Nations Children's Fund has stated that "time does not heal trauma" for millions of such children, who are often described as a "lost generation." Did this turn out to be true for the children caught up in the Second World War in Europe? The medical literature is replete with similarly sweeping statements that lack validity and are pathologizing and stigmatizing. Moreover, the people being studied have not given consent for their mental health to be objectified and characterized as unhealthy typically by an observer far away, which raises ethical questions.

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Geographical Analysis Of Route Optimization For Solid Waste Collection In Satara City

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Abstract

Appropriate planning is essential to make solid waste management more efficient and sustainable. Solid waste management is a major challenge facing the Municipal Council. Solid waste is a most sensitive issue as it involves solid waste generation problems and its management. Municipal solid waste and different kinds of solid waste within the jurisdiction of city is responsible for environmental degradation and creation of unhealthy conditions. Improper disposal of waste is always threat to environment. A solid waste management system in the city is facing problems. Therefore, long-term planning for solid waste management is very much essential. Well planned and Sustainable solid waste management is ensures waste reduction as well as conservation of environment and human health. In such planning of solid waste management mostly include, shortest path or route optimization.

Keywords: Sustainable solid waste management, Municipal solid waste, environmental degradation, human health, route optimization, etc.

Introduction:

The route optimization process guides the decision to select all the waste points and collect the maximum solid waste at the minimum travel distance. Therefore, maximum solid waste will be collected in minimum time and in minimum travel distance. Route optimization is depends on point of waste collection, distance between waste collection points to disposal sites, volume of solid waste collection, period of minimum and maximum traffic, maximum volume of waste generation point etc. Route planning is helps for drivers on the transportation way searching most efficient routes, to reduce fuel costs and increase service time with number of halts. Currently, there is a great need for a planned optimized route for solid waste management in Satara city.

Study Area:

Satara city and proposed planning area is located in the Satara District of Maharashtra state of India. The absolute location of Satara city and proposed planning area is between 17^0 36’ 30” to 17^0 43’ 50” North latitude and 73^0 56’ 50” to 74^0 04’ 27” East longitude. Satara city and proposed planning area includes Karanje, Godoli, Pirwadi, Khed, Dhangarwadi, Sambhajinagar, Kodoli, Khindwadi, Karandwadi, Degaon, Dare Khurd, Saidapur, Kondhave urban area and Songaon, Jakatwadi, Shendre, Darebudruk rural area.

Objectives:

Present research is about the importance of route optimization for solid waste collection. The main objectives of this research are as follows.

1. To investigate the importance of route optimization for solid waste collection.
2. To study the current situation route system.
3. To analyze the optimized route for future planning in solid waste management.

Data Collection and Methodology:

The proposed geographical research work is based on both primary and secondary data. Field survey, interview, observation, questionnaires etc. these are the sources of primary data. The secondary data have been collected from Satara Municipal Corporation, other governmental departments and Internet also. The research methodology includes the process of data collection, analysis and presentation. The database of study area is prepared on the collected primary and secondary data. The outputs of the research are depending on basic information of the city level background.

Importance of shortest path or route optimization:

Road optimization has many advantages such as financially reducing transportation costs, dispose more quantity per day, reducing labor costs, cleaning the service area more often, extend the life of vehicles, etc. The main objective of route optimization is to minimize time, transport cost, and distance. Relevant parameters are used for this. Thus, choosing the route optimization for solid waste collection and transportation saves time, money, labor and helps in making solid waste management success. An

important function in the solid waste collection and transportation process is the effective optimal route of the vehicle, represents an optimized path between origin and destination locations. Route optimization helps to achieving time management, as well as minimize of cost and distance. Route optimization involves the planed schedule of routes of waste collection vehicles during solid waste collection and transportation process. If waste transportation routes are properly planned, time, distance and expenditure will be reduce. Routes are carefully analyzed in micro routing that provides guidance on reducing transportation distances and leads to a reduction in transportation costs and also extended life of the vehicle.

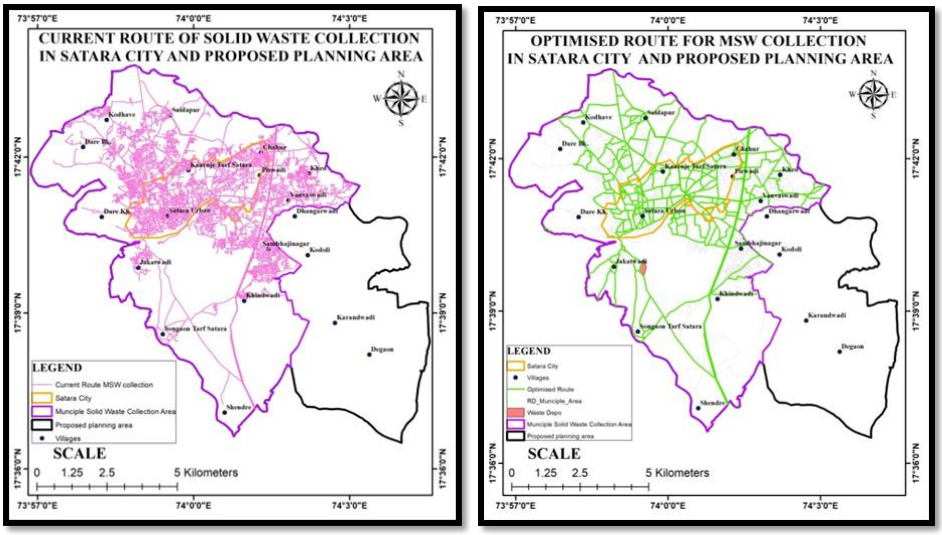
Current routing for solid waste collection and transportation in Satara city:

In the Satara city, there is no systematic or streamlined way of vehicle scheduling for solid waste collection and transportation. Currently, transportation routes are not properly designed, and solid waste collection and transportation is based on the driver's practical experience, his intuition and GPS. The solid waste collection and transportation routing system in Satara city is unorganized, poor, inefficient, and unscientific. With proper planning of existing routes in Satara city, cost control can be achieved and better services can be obtained. Nearly, all types of roads are used for municipal solid waste collection in Satara city and proposed planning area thus increases the total distance and time as well as the total cost. Some of the routes are not proper e.g. municipal solid waste of Khindwadi, Sambhajinagar transporting through the Bogda Marg (see fig.1.1a). Attempts have been made to point out route optimization based on specialized GIS software and geospatial analysis.

Creation of Database:

To analyze the road network in Satara city, in the database has taken the administrative and ward / sector boundary map, existing road network with path connectivity, collection vehicle details (travels time), total distance etc. This database has used for calculating optimal route by defined parameters.

Figure 1.1: Current Route and Optimized Route of solid waste collection in Satara city and proposed planning area:



Identification of Shortest Path for solid waste collection and transportation:

ArcGIS software based network analyst is a reliable and powerful tool provides a spatial analytical network system for finding optimal routes with distance, directions and closest service centre. Existing road network is analyzed by using the Network Analyst in ArcGIS software. The Network Analyst tool is capable of redesigning a reliable real road network model to minimize time and distance of solid waste collection and transportation.Total 40 wards in Satara Municipal Council area and a total of 15 urban areas and rural villages near Satara city are coming under the study area. Out of the total area of 101.89 sq.km, municipal solid waste is collected in an area of 65 sq.km. Total 69.40 tons / per day municipal solid waste is collected from this area. Municipal solid waste collection work has been entrusted to private companies. Total 40 waste collection vehicles are used in waste collection and transportation for Satara city area. A minimum of one to a maximum of two trips are made from each ward of Satara city as well as from the nearest rural village. The average speed of an auto tipper or tractor depends on the nature and type of road. (see figure 1.1 b).

Result:

The distance and time are the two criteria applied here shows that up to 8 % distance was minimized in restructured optimal route and covers all areas of the ward. Compared the distance between current route and restructured optimal route, finding striking features. Total 57.365 km/per trip of waste collection distance will be reduce and total 20.16 hour/per trip waste collection time will be save. As per the total trips/per day compared the current and optimized route in the present study area, it is understood that, total Current Distance is 1,204.297 km and total Optimized Distance is 1,097.450; so finally, 106.847 km distance will be save. Besides, Current Time is 309.14 hour and Optimized Time is 272.37 hour; so finally, 36.37 hours will be reduce. In short, total 8.87% distance will be saves and total 11.76% time will be reduce.Geospatial technology has presented route optimization model with the effective and less time consuming route. Route optimization shows, how much is the time and distance saved. In the future, the use of route optimization for solid waste management will reduce travel time and distance in Satara city and proposed planning area. This will also reduce the cost of waste transportation. In future, Route optimization is a good option for solid waste management. Route optimization supported absolute waste collection, proper transportation, and sustainable solid waste management. Municipal Council of Satara city should adopt optimise route that is the shortest path and improve solid waste management.

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Analysis Study On Globalization And Human Behaviour.

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Introduction -

Globalization means the speedup of movements and exchanges (of human beings, goods, and services, capital, technologies cultural practices) all over the planet. Its touched on all areas of human life. According to WHO, Globalization can be defined as the increased interconnectedness and interdependence of people and countries. This above definition give idea about the globalization, and its largest type of process try to improve economical condition even available resources used for human development. There are three pillars in our society economy, cultural, and political these are affects positive and negative in this globalization factor. Because there are many issues discuss today regarding globalization e.g global warming, land, water, and air pollution, instability of ecosystem and other environmental issue, some positive points are new type of technology develop, expose various type of knowledge that help to solve problems mystery of life. But this process also increase some challenges in front of society we know there are world population is near about 7.8 billion and land and other sources are limited, day today feel competition are increased, uncertainty of life, feel insecurity about future. These type of challenges also face before globalization except population. Now come to point on human behaviour and mental health there number of mental issues face day today life in that issues major issue are stress anxiety depression and suicidal tendency also increase no of case. Even some research told future prediction this type of problematic human behaviour also increase. Stress and depression occupy near to 50% of people experience once in episode in there life such tremendous change face through the globalization.There are many study done on human behaviour through the psychological point of view. We know the formula of behaviour stimulus organism and reaction and action reaction point of view. Psychology contribution to an understanding of globalization has been mostly indirect. Psychological theory and research on acculturation identity and other topics have implication have not been thoroughly described. Even the cultural issue is also measurable there bounding of culture in the globalization process exchange interfere cultural value and rules even some traditional perspective also interchange. disease affects humanity but many disease have comorbidity type in mental health area only absence of people easy to maintain interpersonal communication through the cell phone and increase facility now we came to main point without human life this development can not important.

Key Note – Human behaviour, Globalization

Objective- This paper objective is an analysis of globalization and Human Behaviour

Review of Literature-

Increasing immigration has been specified as one of the forces promoting globalization (Hermans & Kempen 1998)., Immigrants and members of cultural minorities what is the range of multicultural and hybrid identities they may develop. Those who adapt a bicultural identity (who achieve, integration, in his terms) generally show better psychological adaptation than those who assimilate to the new culture Berry (1997). Culture is defined as the total pattern of human behaviour and its products embodied in speech, action, and artifacts and dependent upon man's capacity for learning and transmitting knowledge to succeeding generation (Tomlinson, 1999). Global culture undermine their belief in the value of local cultural practices. At the same time, the ways of the global culture seem out of research to them too foreign to everything they know from their direct experience. Rather than becoming bicultural, they may experience themselves as excluded form both their local culture and the global culture, truly belonging to neither. In terms of Erikson's(1968).

Analysis (Solution)-

Globalization having economic and political origin, demand that whatever the nature of their economies, their level of development and whatever their location in the global economy, all countries must pursue a common set of economic policies. We know the world connected to each other even also dependent on each other but competition to make powerful or independence to all area is vision there various new area also need developmental and we less regulate or give choice to imitate to good behaviour

and do not develop negative perspective there cultural view but this is sometime directly impossible rigidity human behaviour or and religion issue also major work. Some advantage and disadvantage also occur in this globalization we most of thinking necessary to relate nature related that is safety for all organisms. Regarding human behaviour and cultural factors consider as develop or interchange through the this process. Most people embrace the opportunity to make such decisions for themselves. When people are allowed to make their own choices about values, love, and work, the likelihood may be enhanced that they will find a psychologically rewarding match between these choices and their individual desires and abilities. Globalization will gradually expand the proportion of the world's population that has a wide range of identity choices.

Conclusion-

Globalization affects human behaviour in all areas or types includes such cultural, social, and individual these factors develop under influence of globalization there are chance to develop individualistic culture every one wanted to liberalization this type of tendency affect on inability to maintain friends in this globalization we accept various things is not our culture part. In Indian culture we acquire various cultural festival, food and life style. even migration people exchange there culture these positive changes but some negative impact also happen in human behaviour we victimize range of metal health also increase because uncertainty about future and present we most effort give for maintain our status, and more challenges also increase in this globalisation, even globalization increase our complexity society or cultural.

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Synthesis And Structural Properties of Mn, Zn And Mn-Zn Nanoparticle polycrystalline Ferrite

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Abstract

Polycrystalline Nanoparticles of Mn, Zn, Mn-Zn ferrites have been prepared by using co-precipitation method. The prepared samples have been sintered at 700ºC for 3 hours and it was characterized by XRD and FT-IR technique. XRD pattern shows the formation of single phase spinel structure. The magnitude of lattice constant, crystalline size, x-ray density, ionic radii and bond length were calculated using X-ray diffraction data. The two well-known infrared bands of absorption were observed for Mn, Zn, Mn-Zn ferrites; one at around 550 cm^{-1} due to tetrahedral (A) interstitial voids and other at around 425 cm^{-1} due to octahedral (B) interstitial voids.

Keywords:- Mn-Zn Ferrite, Spinel ferrites, co-precipitation method

Introduction

Ferrites are usually non-conductive ferrimagnetic ceramic material. The majority ferrites shows a spinel structure [1]. The common formula for a spinel ferrite is AB_2O_4. Nano-sized polycrystalline ferrite is of technological and scientific interesting as compare to bulk materials due to its significantly differ from those of physical, chemical, optical, electrical and magnetic properties [2-3]. Nanosized spinel ferrites possess high resistivity, low eddy current losses, low dielectric losses, high Curie temperature, moderate saturation magnetization, high permeability etc. [4]. Today these significant properties make ferrite useful in wide range of application in electronics and telecommunications [5] hyperthermia [6], sensors [7], inductors and RF ICs [8], gas Sensors [9], ferro-fluids [10], drug delivery and spintronics [11] and modulators and circulators [12]. The coercive force is related with anisotropy and internal stresses. The ferrites having low coercive force (H_C) is known as Soft ferrites [13]. Generally, soft ferrite shows high electrical resistivity, superior magnetic and structural properties and hence they have low eddy current losses at high frequency [14]. In current, a various chemical and physical methods have been used to prepare nanosized ferrites. Various chemical methods such as sol–gel citrate method, Auto-combustion method, micro-emulsion hydrothermal and reverse micelle [15, 16] were reported for the synthesis of ferrite nanoparticles. Here, we adopted wet chemical coprecipitation method for the preparation of Mn, Zn and Mn-Zn ferrite due to number of advantages over other methods like small particle size with low sintering temperature and produce high purity materials [17]. The structural properties of ferrite are significant properties that will depend upon the chemical content, sintering temperature and time. In the present work we reported the comparative study of Manganese, Zinc, Mn-Zn ferrites on structural properties.

2. Experimental

2.1 Synthesis of Mn, Zn and Mn-Zn ferrite

The preparation of Mn, Zn and Mn-Zn ferrites carried out by oxalate co-precipitation method. The starting materials used for the preparation of the Mn, Zn and Mn-Zn ferrites were $MnSO_4.7H_2O$, $ZnSO_4.7H_2O$ and $Fe_2SO_4.7H_2O$. All chemicals were used as further purified. These chemicals are dissolved in distilled water with stoichiometric proportion. The concentrated sulphuric acid was added drop wise manner in dissolved solution to maintain pH value at 4.0. The formed solution was heated at 80 ^{O}C for 1 hour in order to produce the metal sulphate ionization [18]. By adding ammonium oxalate in distilled water, the precipitating reagent was prepared. In resultant metal sulphate solution, precipitating reagent was added slowly by drop wise manner with constant stirring still precipitation was completed. The chemical reaction mechanism for the formation precipitation is given below.

$$MnSO_4 + 2H_2O + C_2O_4^- \rightarrow MnC_2O_4 2H_2O + SO_4^{2-} \quad \text{..... (1)}$$

$$ZnSO_4 + 2H_2O + C_2O_4^- \rightarrow ZnC_2O_4 2H_2O + SO_4^{2-} \quad \text{---- (2)}$$

$$FeSO_4 + 2H_2O + C_2O_4^- \rightarrow FeC_2O_4 2H_2O + SO_4^{2-} \quad \text{----- (3)}$$

The final precipitation produced of magnesium oxalate; zinc oxalate and ferrous oxalate were of solid solution. In order to obtain precipitate at bottom of beaker, the solid solution was digested on sand bath for 1 hour. Then with the help Whatman filter paper no.41, the precipitate was separated. The final co-precipitate product was dried by using IR light and pre-sintered at 450^{0}C for 3 hours and then sintered at 700^{0}C for 3 hours in air medium [19].

2.2 Characterization Techniques

The X-ray diffraction patterns of powdered Mn ,Zn and Mn-Zn ferrites, pre-sintered at 700 ^{0}C for 5h were obtained by using model PW 1710 ($\lambda = 1.5405$ A^0). The IR absorption spectrum of Mn, Zn and Mn-Zn ferrites for the present investigation have been obtained on JASCO FT-IR model 6100 in the wave number ranging 400-4000cm^{-1} in KBr medium.

3. Results and Discussions

3.1 XRD Analysis

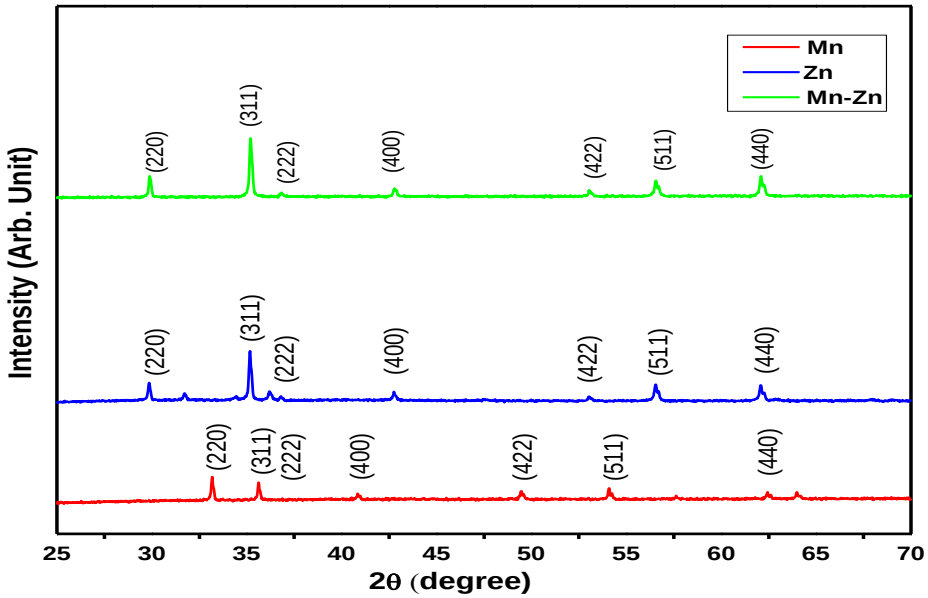

Fig. 1: XRD patterns of manganese, Zinc and Manganese-Zinc ferrites

The X-ray diffraction patterns of manganese, zinc and manganese-zinc ferrites system sintered at temperature 700^{0}C for 3h are shown in Fig.1. A well resolved peak in XRD pattern and absence of extra lines clearly indicates the single phase cubic structure and polycrystalline nature of the samples. The XRD pattern reveals sharp and intense peaks corresponding to planes (220), (311), (222), (400), (422), (511) and (440). The lattice constant 'a' of manganese, zinc and manganese-zinc ferrites were calculated by most intense XRD peak (311) using the equation (4).

$$a^2 = d^2 \times (\square^2 + k^2 + l^2) \text{ ---------- (4)}$$

Where, (h, k, l) is the miller indices. The plot of lattice constant of manganese, zinc and manganese-zinc ferrites is shown in Fig.2. A different value of the lattice parameter was examined for Mn, Zn and Mn-Zn ferrites. The lattice constant mainly depends upon the composition of ferrite materials [20]. The value of lattice constant is to be 8.357 A^o for Mn ferrite, 8.46 A^0 for Zn ferrite and 8.45 V A^0 for Mn-Zn ferrite.

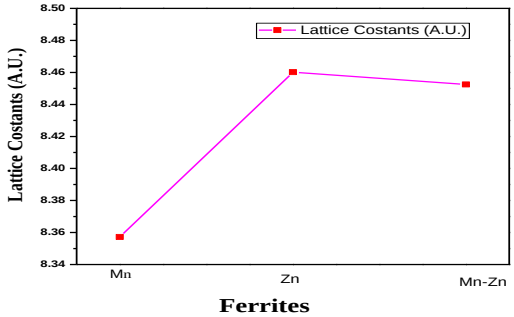

Fig. 2: Lattice constants of manganese, zinc and manganese-zinc ferrites

The crystallite size for all ferrites has been determined from maximum intense plane (311) of XRD pattern. The average crystalline size of the ferrites were determined by Debye Scherer formula (5)

$$D = \frac{0.9\lambda}{\beta \cos\theta} \quad \text{---------- (5)}$$

Where β the full width at half maxima and θ is is angle of diffraction

The graph of ferrite materials of Mn, Zn and Mn-Zn against crystalline size shown in figure 3. The crystallite size has been observed to be 53.2 nm for Mn ferrite, 47 nm for Zn ferrite and 47.5 nm for Mn-Zn. The crystallite size strongly depends on the composition of ferrite materials [21]. The data shows formation of nanocrystalline ferrite sample.

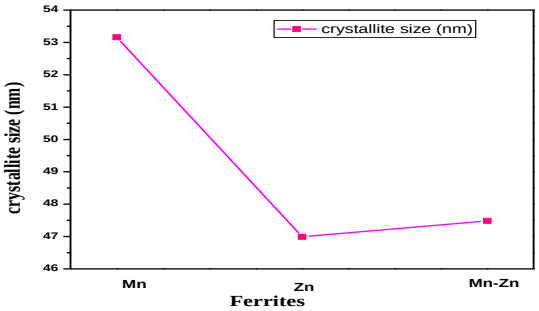

Fig. 3: Crystallite size of manganese, zinc and manganese-zinc ferrites

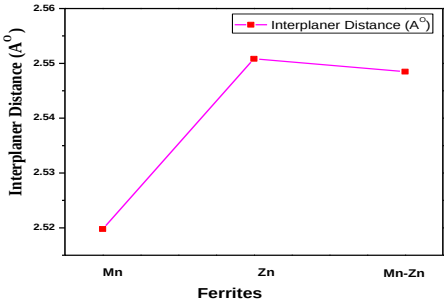

Fig. 4: Interplaner distance of manganese, Zinc and Manganese-Zinc ferrites system

The interplaner distance was obtained by the formula (6)

$$d_{cal} = \frac{n\lambda}{2\sin\theta} \text{ ---------- (6)}$$

The ionic radii on tetrahedral A site and octahedral B site is calculated by using Eqs. (7) and (8)

$$R_A = (u-\frac{1}{4}).a.\sqrt{3} - r(O^{2-}) \text{ --------- (7)}$$

$$R_B = (\frac{5}{8}-u).\ a\ .-r(O^{2-}) \text{ ----------(8)}$$

Where, $r(O^{2-})$ is the ionic radii of the oxygen

The graphical representation of ionic radii R_A and R_B verses ferrite sample as shown in the Fig. 5. The value of R_A is less than R_B for all samples. This is rather a normal behavior of spinel ferrites [22]. The ionic radii R_A and R_B observed to be different for Mn, Zn and Mn-Zn ferrites. The ionic radii (R_A and R_B) of Zn ferrite is large as compare to Mn and Mn-Zn ferrite. This is due to ionic radii of zinc is 0.83 A^0 is large as compare to Mn which is to be 0.72 A^0 .

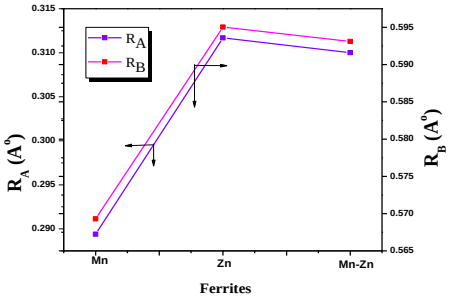

Fig. 5: Ionic Radii of manganese, Zinc and Manganese-Zinc ferrites system

The bond length of metal oxygen A-O on tetrahedral site was obtained by equation (9)

$$A\text{-}O = (u - \frac{1}{4}).a.\sqrt{3} \text{ ---------- (9)}$$

The bond length of metal oxygen B-O on octahedral site was obtained by equation (10)

$$B\text{-}O = (\frac{5}{8} - u)\, a \text{ ---------- (10)}$$

where, u is the oxygen ion parameter.

The graphical representation of bond length A-O on tetrahedral site and bond length B-O on octahedral site as shown in the Fig. 5. The value of A-O is less than B-O for all ferrite samples. This is a common performance of spinel ferrites. The A-O bond length on tetrahedral site and B-O bond length on octahedral site was found to be different for Mn, Zn and Mn-Zn ferrite material.

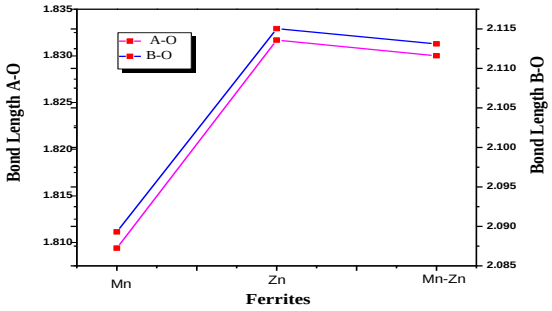

Fig. 6: Bond Length of manganese, Zinc and Manganese-Zinc ferrites system

The x-ray density was calculated by equation (11)

$$D_x = \frac{8M}{Na^3} \text{ ---------- (11)}$$

Where 'a' is lattice constant, 'M' is molecular weight of ferrite and 'N' is Avogadro's number. Figure 5 shows The X-Ray densities. The x-ray density of Zn ferrite is large as compare to Mn and Mn-Zn ferrite. This is obvious that mass volume ratio of Zn ferrite is greater than the Mn and Mn-Zn ferrites and this is attributed due to the decrease in lattice constant [22].

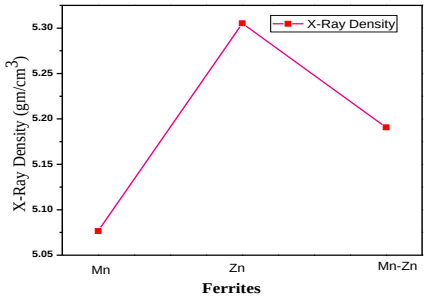

Fig. 7: The X-Ray densities of manganese, Zinc and Manganese-Zinc ferrites system

3.2 FT-IR studies

The FT-IR spectra of manganese, Zinc and Manganese-Zinc ferrite in the frequency range 4000-300 cm^{-1} is as shown in Fig 4. A study of FT-IR spectra of all the samples shows two prominent absorption bands. The high frequency absorption band ν_1 lies around 550 cm^{-1}, allocated to stretching vibration of tetrahedral complexes. The low frequency band ν_2 lies around 425 cm^{-1}, allocated to stretching vibration of octahedral complexes [23]. These bands are shown due to spinel structure [24]. This difference in band position of υ_1 and υ_2 that arises from one ferrite sample to another are expected because of the variation in bond lengths. Generally the broadening of the spectral bands has been observed in the spinel ferrites, which is attributed to the statistical distribution of cations over A-site and B-site. This result is good concord with previous reports [25].

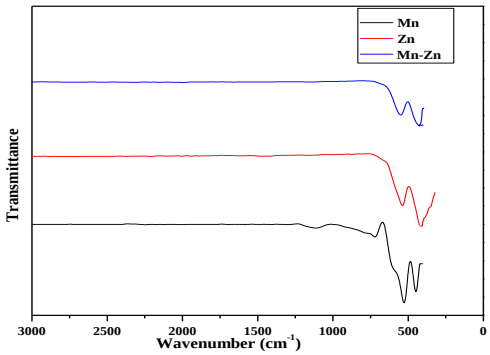

Fig. 8: The FT-IR spectra of Mn, Zn, Mn-Zn ferrites

Conclusion:

The manganese, Zinc and Manganese-Zinc ferrites have cubic spinel structure. The crystalline size was found to be 53.2 nm for Mn ferrite, 47 nm for Zn ferrite and 47.5 nm for Mn-Zn. The x-ray parameters, viz. lattice constant, x-ray density, ionic radius and bond length were determined. The bond length (A-O and B-O) and ionic radii (RA and RB) were found to be different for Mn, Zn and Mn-Zn ferrite sample. The x-ray density of Zn ferrite is large as compare to Mn and Mn-Zn ferrite. The absorption bands in FTIR spectra were found in the expected range of ferrites and this corroborates the spinel structure of the samples.

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Impact of Irrigation on Level of agriculture Performance in Chandrapur district

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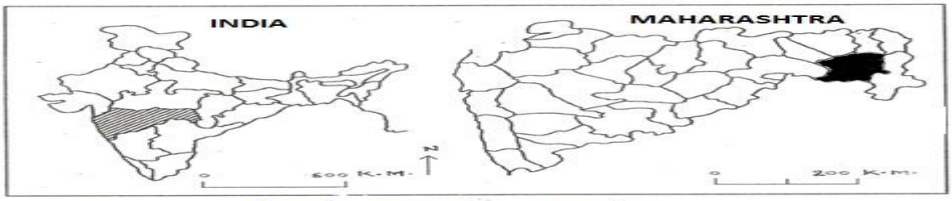
Abstract:
Irrigation plays an important role in minimizing its adverse influence on agriculture. Agriculture stability and development depend on the availability of water her Maharashtra state record nearly 15% irrigated area of total cultivated area land as compare to national figure of 18%. Chandrapur district have 28.94% irrigated area. The Chandrapur district region is located In eastern part of Maharashtra state. It covers area 11443 km² with 15 tahsils and total population 22.04 lakhs, which 64.83% ruler and 35.16% urban population. The major river system is Wardha and Vainganga basin. The present research paper to study the impact of irrigation on level of agriculture performance in Chandrapur district secondary data has been used. The agriculture productivity defined as the level of existing performance of a unit of land which differentiates from one and another. Crop yield percentage of Grass cropped area and selected crops cultivated area. The agricultural performance of the study area is calculating of high, moderate and low levels of agricultural performance indicating with the help of maps. The present research paper is examined the impact of irrigation and level of agricultural performance in Chandrapur district.
Keywords: Agricultural performance, cultivated area, Impact of irrigation.

Introduction:
Agricultural productivity is a function of various factors like physical, social and economic, technical and organizational. The level of agricultural productivity as a concept means the degree to which the economic, cultural, technical and Organizational variables are able to exploit the biotic resources of the area for agricultural production (Singh J. 1984) The agricultural productivity is also defined as the level of existing performance of the unit of land which differentiate come one are to another. (Muhammad Ali, 1979). The differential partly by soil types, climate and farming techniques. Agricultural productivity is a dynamic in its spatiotemporal perspectives. The development of irrigation facilities, mechanization, Use of party fertilizers and high yielding varieties seeds adoption of other components a new technology leads to variation in agriculture efficient per unit of time and space.(Ajagekar B.A. 1988)Bing and interdisciplinary study, many scholars from different fields like economic agriculture have involved different methods to measure the agriculture productivity. The ranking Co- efficient of principal crops for a unit of area was used in analyzing and estimating the agriculture efficiency by Kendall (1939). This method was further applied by stamp 1952 for measuring the agriculture efficiency in India. Shafi 1960 in India did a similar work on Uttar Pradesh.

Objectives:
The present research paper is examine impact of irrigation on the spatial pattern of agricultural performance by weaker areas can be identified which would be useful in designing proper strategy in agricultural planning.

Study Area:
The Chandrapur district lies between the north latitudes of 18°4'and 20°51' and east longitudes of 78°51' and 80°6'. It is surrounded by Andra Pradesh State in the South, Gadchiroli district in the east, Nagpur and Bhandra district in the north and Wardha and Yawatmal district in the west. The district occupies 11443 sq. km. area and the total population 22.04 lakh which 64.83 % is rural and 35.16 % urban population. The district has made 15 tahsils and density of population is 193 persons per sq. km. (2011 census)



Chandrapur Districts - Study

Database and methodology:

The present research paper is based on secondary data sources of data mainly collected from Socio-economic handbook and census in Chandrapur district. Impact of agricultural technology on agricultural performance has also been attempted by overlapping the map of the levels of technology on the map showing the level of agricultural performance at tehsil level. This kind of relationship gives idea of the factors responsible for the emergence of certain level of performance, finally considering other Socio-economic aspects. The level of agricultural development has been examine which could be useful are paining too. The tehsil wise late indicates by employing statistical procedure discuss Jasbir Singh (1990) method. In order to assess agriculture performance Jasbir Singh method of weightage composite level of agriculture performance has been employed. The technique take into consideration both the cropland occupancy and productivity of crops for ascertain the level of agricultural performance which have been calculated from each tehsil based on the following formula-

$$\mathbf{Vw} = \frac{Yae}{Yar} \times \frac{Pae}{Par} + \frac{Yba}{Ybr} \times \frac{Pbe}{Pbr} + \frac{Yce}{Ycr} \times \frac{Pce}{Pcr} + --N = \frac{\sum LQs}{N}$$

Were,

Vw - Denotes weighted composite index of regional inequality in agriculture performance.

Y- Means crop yield of crop 'a' in kilograms per hectare.

P- Implies crop land occupancy of crop 'a' in percentage of gross crop area.

a, b and c - subscripts denote crops considered.

e and r- subscripts denotes the tehsils and district respectively.

N- Is a number of crops holding more than 5% of the total cropped area.

LQs - Mean's location quotient.

In the present study Rice, wheat, Jowar, Tour, Cotton, and Soyabean are selected crops they have occupied cultivated area significantly. The sum off location quotient was divided by the number of crops considered in the tahsil and multiplied by 100 to obtain the weighted composite index for the level of agriculture performance. Thus, the formula is given bellow:

Weighted composite level of agriculture performance = $\frac{\sum LQs}{N}$ **x 100**

Regional pattern of the level of agricultural performance:

The index value in kilogram per hector giving the level of agriculture performance for each tehsils the level of agriculture performance the rate during the district; which are given below-

I) High-level of agricultural performance:

High-level performance region includes four tehsils like Nagbhid, Bramhapuri, Korpana and Pombhurna in Chandrapur district. These tahsils has characterise by assured supply of water mainly from Canal irrigation, tube wells, Ghodazari and Amala Nala dam, dominance of rice, Cotton, Soyabean cultivation In four tahsils and after all closed network of village level cooperatives. As a result this tahsils possesses high level agricultural performance. In this tahsils farming is generally carried out scientifically and with commercial attitude recording highest agricultural performance.

II) Moderate level of agricultural performance:

This region includes fourth tehsils like Chimur, Sawali, Sindewahi and Mul in the district. This is the sales has development of Canal irrigation, mainly from Gosikhurd Dam, wells and ponds , tube -wells , lift-irrigation why when Ganga river. Besides, in this part of the district foundation Agro-based industries like rice mills are also playing vital role for promoting and introducing the agriculture technology. The farmers are well aware about new farming technology leading to moderate level of performance in this region.

III) Low level of agricultural performance:

Low level performance reason includes seventh sales like Warora, Bhadravati, Rajura!Jiwati, Gondpipari, Chandrapur and Ballarpur in the district. These tahsils having variability of rainfall, in adequate water supply and low level of agricultural technology below hundred percent have led low productivity of land. This region develop coal mines, cement factories and ordinance factory. The valuable agricultural land under the coal mines area and industrial zone. Due to the industrialization, air and water pollution which are the factors possessing poor performance of agricultural in the region.

Table -1: Regional Patterns of Agricultural Performance in Chandrapur district.

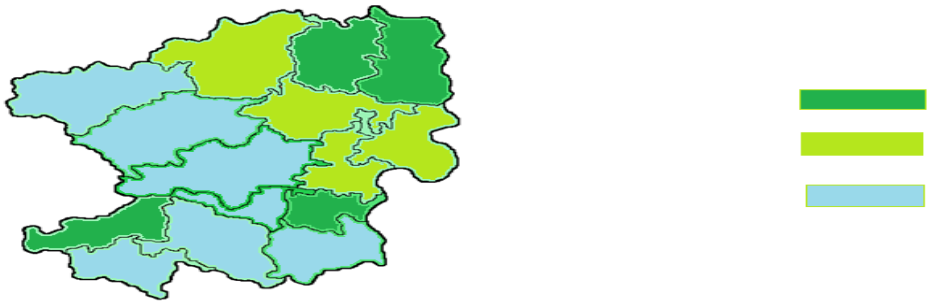
Regions	Index Value	Tahsils
High-level of agricultural performance	Above 130	Nagbhid, Bramhapuri, Korpana and Pombhurna

Moderate level of agricultural performance	100-130	Chimur, Sawali, Sindewahi and Mul
Low level of agricultural performance	Below-100	Warora, Bhadravati, Rajura, Jiwati, Gondpipari, Chandrapur and Ballarpur

Source: Compiled by Author

Figure-2 : Agricultural Performance in Chandrapur district:

Concluding remarks:



Agricultural technology plays a vital role in enhancing the crop yield. The indices on Map show spatial variations of agricultural performance. The Bramhapuri, Pombhurna, Korpana and Nagbhid tahsils has assured supply of water, dominance Rice, cotton and Soyabean cultivation. The farming is carried out scientifically and commercial attitude leading to high level i. e. 140%. The middle part of district has development of Irrigation by goes through the dam come on foundation for Agro Based industries leading moderate level of agricultural performance. The south and part of the district development of coal mines, cement factories and ordinance factory valuable land covered in this industrial zone due to this reason low agricultural performance in this area.

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Conservation and Protection of Bio-Diversity in India

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Abstract

Biodiversity stands for the variation of life on the earth. The diversity is the most essential over the surface of the earth in terms of culture, climate and in natural resources. The similarity in the culture, resources and climate will not give the variety of differences in the spare of life. The diversity of life in different regions fulfill different requirement of mankind. Therefore, it is essential to retain the biodiversity on the surface of the earth for the overall sustainable development.

Keywords: Biodiversity, Conservation, Sustainable Development.

Introduction:

Most probably, our earth is the only planet in the universe on which life exists. Different kinds of the living organisms are present both in aquatic and terrestrial habitat. The living organisms include plants and animals from microscopic to macroscopic forms. It is generally believed that as many as 500 million kinds of plants, animals and micro organisms have made this planet home since the beginning of time. Today, there are five to ten million species, two third of which live in the tropics. Thus, 490 million species have become extinct or lost forever. The species are the products of long evolutionary process. Extinction is an evolutionary fact of life. All the living forms of plants and animals exhibit a great diversity hence, the term referred for the variety is biodiversity.The term biological diversity, commonly shortened to 'biodiversity' is used to describe the number, variety and variability of living organisms.The word biodiversity is made up of two words, Bio, means life and diversity, means variation; thus, Biodiversity is variation of life on the earth; particularly of plants, animals and microbes. Biodiversity may be defined as the sum total of species of plants, animals and microorganisms occurring in the given habitat.Thus Biodiversity may be described in term of (i) genes (ii) species and (iii) ecosystems, corresponding to three fundamental levels of biological organization.

Biogeographical Classification of India:

Before, we classify the biogeographical, regions of India, it is most appropriate, at the very outset, to understand the term biogeography. Bio geography is made up of three terms (i) Bio-meaning living or life (ii) Geo-means, earth (iii) Graphy-means, study. Biogeography, thus stands for the study of life on the earth.India is a large country known as Indian sub continent, have different types of climate and physiographic regions. These variations are responsible for enormous variability in plants and animals kingdom. The Indian sub continent is floristically rich rather than its fauna. It is very significant to study the evolution, distribution dispersal and environmental relationship of flora and fauna in time and space.

India is exceptionally rich in biodiversity and is one of the 12 Mega diversity centers of the world. With 10 biogeographic zones and 25 biotic provinces, all major ecosystems are represented here. In order to get an idea the distribution and interactions of plants and animals of India, it has been classified in the following table.

Table 1- India's Major Biogeographic Habitats

Sr. No.	Bio geographic zone	Biotic province	Total area sq.km.
1.	Trans Himalayan	1. Upper Regions	186200
2.	Himalayan	2. North west Himalayas	6900
		3. West Himalayas	720000
		4. Central Himalayas	123000
		5. East Himalayas	83000
3.	Desert	6. Kutch	45000
		7. Thar	180000
		8. Ladakh	NA
4.	Semi arid	9. Central India	107600
		10. Gujarat Rajwara	400400
5.	Western Ghats	11. Malbar coast	59700

		12. Western Ghat Mountains	99300
6.	Deccan Peninsula	13. Deccan Plateau 14. Central Plateau 15. Eastern Plateau 16. Chhota Nagpur Plateau 17. Central High Lands	378000 341000 198000 217000 287000
7.	Gangetic Plain	18. Upper Gangetic Plain 19. Lower Gangetic Plain	206400 153000
8.	North East India	20. Bramhaputra Valley 21. North Eastern Hills	65200 106200
9.	Coasts	22. West Coast 23. East Coast	6500 6500
10.	Islands	24. Andman & Nicobar Island 25. Lakshadeep Islands	8327 180

Source: "Conserving biological wealth", WWF for nature India and Zoological survey of India.

Biodiversity at Global, National and Local Levels:

i) Global Biodiversity:-

Any sensible man would like to know about the realities of the species in biosphere around the world. Many scholars believe that there exists 5-30 million. Species only 1.5 million have been recognized. These include 3,00,000 species of green plants and fungi, 8,00,000 species of insects, 40,000 species of vertebrates and 3,60,000 species of microorganisms.As per recent estimates the number of insects alone may be as high as 10 million, but many other scholars believe it is more likely to be around 5 million.As expected, the tropical forests are regarded the richest in biodiversity. As per the opinion of the scientists more than 50% of the species on the earth live in most tropical forests, which is only 70% of the entire land surface. Insects 80% and primates 90% make up most of the species. Temperate forest have much less biodiversity. Globally we have approximately 170000 flowering plants, 30000 vertebrates and about 250000 other group of species. The marine biodiversity is much greater than terrestrial they are still less known and described.

ii) National Level Biodiversity:-

India having a vast geographical area is very rich in biodiversity with a sizable percentage of endemic flora and fauna. These vary from the humid tropical western ghats to the hot desert of thar, from the cold desert of ladakh and the snow covered mountain of Himalayas to the warm coasts of south India. India has over 1,15,000 species of plants and animals. It is a original home of about 167 important cultivated plant species. India is one of the top most mega diversity nations of 12 countries having two hot spots of extreme diversity namely western ghats and eastern Himalayas. About 35% of flowering plants of India are endemic.India is very rich faunal wealth also with about 75,000 animals species, out of it about 80% are insects. Most of the reptiles are endemic. India is a original home of many domesticated animals like buffalowes, goats, sheeps, chows, oxes, pigs horses, camels donkeys, elephants etc.

iii) Local Biodiversity:

As far our knowledge and understanding are concerned, nature has not brought into existence anything which is useless. It is therefore; very essential to conserve our biodiversity of our environment Biodiversity at local level is better understood by categorizing species richness into following four types based on spatial distributions.

India As a Mega Diversity Nation :

India has a rich heritage of species and genetic strains of flora and fauna. India is one of the 12 mega diversity countries in the world. The ministry of environment and forests, Government of India recorded about 47000 species of plants and 81000 species of animals that is about 7% and 6.5% respectively of global, flora and fauna. In India about 1, 15,000 species of plants and animals have been identified and described. Out of the 18 biodiversity hot spots in the world, India alone has two, namely the Western Ghats and the north eastern Himalayas. Thus, India's special geographical position in terms of physiographic and climatic conditions is responsible for its rich and varied biodiversity. Hence, India is known as a mega diversity nation in the world.

Table: 2 Species of flora and fauna in India

Plants	**Number**	**Animals**	**Number**
Bacteria	850	Lower groups	9979
Fungi	23000	Mollusca	5042

Algae	2500	Arthopoda	57525
Bryophytes	2564	Pisces (Fishes)	2546
Pteridophytes	1022	Amphibia	424
Gymnosperms	64	Reptiles	204
Angiosperms	1500	Birds	1228
		Mammals	372

Western Ghat As a Bio-Diversity Region :

Western Ghats run to a length of about 1700 km, starting from the mouth of the river Tapi in Gujarat in north and ending at Kanyakumari in south India. Western Ghat, by the large is parallel to western coast of India. Western ghat has an area of around 1,60,000 square km. with population of over50 millions. It is spread in the states of Gujrat, Maharashtra, Goa, Karnataka, Kerala and Tamilnadu and has about 40% of the total endemic plant species, 62% amphibians and 50% lizards. The strategic location of the western ghat affects the south west monsoon and the climate of India. The western ghat receives on an average annual rainfall of 4500 mm, most of it during south west monsoon season. Due to varied amount of rainfall both east and west margins of the western ghats has resulted in a very rich forest systems, Important forests in western ghats are of evergreen, semi evergreen, moist and dry deciduous and subtropical hill forest. The forests consist of many medicinal plants, orchids, grasses, trees and nearly 4000 species of flowering plants. It is a home to many rare and important species of flora and fauna. More than 1500 species of flowering plants and several hundreds of ferns and mosses are reported in the ghats making a very rich floral diversity. It is ecologically one of the richest regions only after Eastern Himalayas in the diversity of biological species. In Western Ghats about 50 genera of mammals 275 genera of birds, 60 genera of reptiles are found. It is also a centre of origin of various cultivated plants. Forms the preceding discussion, it is very clear that the western ghat due to its varied climatic and physiographic conditions is a extremely rich in biodiversity in India.

Hotspots of Biodiversity:

All those regions that support rich biodiversity, because of geologic formations and endemic flora and fauna, and severely threatened by human activities are called as hot spots of biodiversity.

i) Eastern Himalayas: This is the regions which receive highest rainfall in the world. Physiographically this is most undulating region. Recent Studies have shown that north east India and adjoining regions of Myanmar, and Chinese provinces of Yunnan and Schezwan is and important centre of organic evolution and hence it is considered to be the cradle of flowering plants and animals. Surprisingly out of the world's estimated flora one third are endemic to India of which 35000 are in the Hamalayas.

ii) Western Ghats: The biodiversity of Western Ghats is extremely variable. It is ecologically richest regions of India only after Himalayas in the biodiversity. About 4000 species of plants out of which 15000 species are endemic. In Western Ghats 48 genera of mammals 275 genera of birds, 60 genera of reptiles are found. Apart from this the western ghat is centre of origin of various cultivated plants. The southern western ghat known as malbar is the major genetic estate with and enormous biodiversity of ancient lineage.

Table 3: Global Hotspots of biodiversity

Sr. No.	Hot Spots	Plant Species	Endemic Plants	%of Global plants	Vertebrate species	Endemic vertebrates	% of global vertebrates
1	Trophical Andes	45000	20000	6.7	3389	1567	5.7
2	Mesoamerican forest	24000	5000	1.7	2859	1159	4.2
3	Caribbean	12000	7000	2.3	1518	779	2.9
4	Brazil's Atlantic forest	20000	8000	2.7	1361	567	2.1
5	Western Equador	9000	2250	0.8	1625	418	1.5
6	Brazil cerrado	10000	4400	1.5	1268	117	0.4
7	Central chile	3429	1605	0.5	335	61	0.2
8	Californai	4426	2125	0.7	584	71	0.3
9	Medagaskar	12000	9704	3.2	987	771	2.8
10	Tanjania / Kenya	4000	1500	0.5	1019	121	0.4
11	Western African forest	9000	2250	0.8	1320	270	1.0
12	Cape floristic province	8200	5682	1.9	562	53	0.2

13	Succelent Karoo	4849	1940	0.6	472	45	0.2
14	Mediterranean basin	25000	13000	4.3	770	235	0.9
15	Caucasus	6300	1600	0.5	632	59	0.2
16	Sundaland	25000	15000	5.0	1800	701	2.6
17	Wallaeea	10000	1500	0.5	1142	529	1.9
18	Plolippines	7620	5832	1.9	1093	518	1.9
19	Indo Burma Eastern Himalayas	135000	7000	2.3	2185	528	1.9
20	South central china	12000	3500	1.2	1141	178	0.7
21	Wn. Ghats/ Shri Lakna	4780	2180	0.7	1073	355	1.3
22	South Western Austrialia	5469	4331	1.4	456	100	0.4
23	New caledoria	3332	2551	0.9	190	84	0.3
24	New Zealand	2300	1865	0.6	271	136	0.5
25	Polynesia / Micronesia	6557	3334	1.1	342	223	0.8
	Total		**133149**	**44.3**		**9645**	**35.3**

Threats To Biodiversity :

Today, man has started to misuse the natural resources. As a result of unsustainable use of resources, dense forests and grasslands are being turned into desert and wastelands in most part of the world. This loss of biodiversity is considered to be the greatest challenge faced by man at present. During a very long evolutionary process through which present day species have evolved, biodiversity is more threatened now, then ever before in the geological history of earth. During the 20^{th} century, the human impact has been so ever that thousands of species and verities are becoming extint. Loss of habitat & poaching are the major causes related to threat of biodiversity.

1) Loss of Habitat 2) Poaching of Wildlife 3) Man wildlife conflicts

Reasons of Man Wildlife Conflicts :

Due to decline in areas of forest cover, force many wild animals to go outside of the forest and attack the crops and sometimes even humans. It clearly reveals that a small area under forest creates a conflict between man and wildlife because of their survival. Sometimes farmers put electric wiring around their fields; injuring many wild animals hence they become violent.

Endangered And Endemic Species Of India :

The most serious aspect of the loss of biodiversity is the extinction of species. Once a species goes extinct, their changes for further evolution are lost. A species is considered extinct when no member of the species remains alive anywhere in the world. Endangered species are in danger of extinction and they are not likely to survive if the factors threatening their extinction continue. The number of endangered species has been reduced to a critical level or their habits have been so drastically reduced that they are in immediate danger of extinction. Great India bustard, pink leaded duck, lion, tiger, musk deer, Kashmir stag and some other animals are facing extinction in India. All species are not equally susceptible to extinction. The characteristics which make a species susceptible to extinction are listed below.

1. Large body size species e.g. Tiger, Lion Giraffe
2. Small population size and low reproductive rate e.g. Blue whale and Giant Ponda beer etc.
3. Feeding at high trophic levels in the food chain e.g. Blue whale, whooping, crape.
4. Localized and narrow range of distribution e. g. wood land cribou and island species.

Endemic Species Of India :

India has large number of endemic species in Western Ghats and North eastern Himalayas. The species which are naturally found in a specific region and not found anywhere else in the world are termed as a endemic species. The endemism is a critical criteria in biodiversity conservation as they are confined in a specific area are much vulnerable to local human impact, if due care is not taken to save them,, may be lost forever.

Conservation of Biodiversity:

The conservation of biodiversity means the management of human use of the biosphere so that it may give maximum benefit to present generation while in maintaining its potential to meet the requirements of the future generations. The conservation of biodiversity has three specific objectives.

1. To maintain essential ecological processes and life supporting systems air, water and soil.
2. To preserve the diversity of species of the range of genetic material found in the world's organisms.

3. To ensure a continuous use of species and ecosystems which support rural communities and major industries.

Thus, the conservation of living natural resources is concerned with living organisms of plants, animals and organisms and with those non living elements of the environment which support them. Biodiversity most vital due to their genetic, commercial, medical, aesthetic and ecological importance required to conserve it. It is a gift of nature it should be unturned enjoyed not be destroyed.

There are two major approaches of biodiversity conservation.

In situ conservation (within habitat): This is an approach, which is applied to protect flora and fauna in nature itself. It is often recommended that these species should be preserved, by maintaining the genetic integrity of their nature state as communities in stable environments. This approach of conservation of biodiversity includes establishment of protected areas of varied categories such as national parks, sanctuaries, natural reserve monuments, cultural landscapes biosphere reserve and virgin forest. In India, there are 86 national parks and 461 sanctuaries occupying an area of 150000 sq. km. In Maharashtra there are about 16 national parks and sanctuaries.

Ex-Situ Conservation: It means the conservation of biodiversity at places away from their natural habitat. This refers to the wildlife conservation in captivity under human, care. In this type of conservation, the endangered plants and animals are collected and bred under controlled conditions in gardens, zoos, sanctuaries etc. Where there is expertise to took after the species under artificially managed conditions.

Table 4: Major National Parks and wild life sanctuaries in India.

Sr. No.	Name and Location of parks	Area in sq. km.	Important animals found
1	Kazirnaga National Park District sibsagar, Assam	430	Elephant, Wild Buffalo, Tiger, Leopard Bear, Python. Rhinoceros
2	Sunder bans, 24 pargen. West Bengal.	2585	Tiger, Dee, Wild Bear, Dolphin, Crocodile
3	Jaldapara, Madarihat, W. B.	1155	Rhino, elephant, tiger, deer
4	Hazaribagh, Bihar	180	Tiger, Leopard, Hyaena, Bear
5	Corbell, district : Nainital Uttranchal	525	Tiger, Elephant, Panthar, Bear, Python
6	Gir national park, dist Junagarh, Gujrat	1412	Lion, Panther, Hyaena, Nilgiri, Antelope
7	Keolado Ghand, Bharatpur, Rajashthan	29	Crane, Stroks, Deer, Bear, Pythan
8	Jisalmer, Rajashthan	3000	Chinkara, Black Buk, Bustard
9	Sultanpur, Gurgaon. HR.	12	Crane, Sarus, Drake Sport Bill Duck
10	Bir Moti bagh, Patiyala, Punjab	83	Nilgiri, Wild Boas, Hog Deer, Jackal
11	Shikari Devi, Mandi H. P.	213	Bear, Leopard, Fox, Deer, Chakor
12	Dachigam, Srinagar J & K	89	Stag, Musk, Dear, Leopard Bear
13	Kanha, Madala, M. P.	940	Tiger, Panther, Deer, Longur
14	Tadoba, Chandrapur, MH	116	Tiger, Sambhar, Deer, Longur
15	Bandipur, Karnataka	874	Elephant, Tiger, Leopard, Deer
16	Anamalai Coimbatore, TN	958	Elephant, Tiger, Deer, Wild Dog
17	Mudumalai, Nilgiri TN	321	Elephant, Deer, Mouse, Phythan
18	Nundantharai, Tirunelveli	520	Panther, Tigher, Sambhar
19	Nagarjuna Sagar, Nalgandu, A. P.	3568	Tiger, Panther, Nilgiri, Fox, Jackal Wolf
20	Periyar, Idukki, Kerala	777	Elephant, Tiger, Panther, Leopard, Beer
21	Chilka lake bird sanctuary, Belagaon, Orissa	900	Crane, Water Fowls, Ducks Sandpipers Flamingoses

Conclusion:

The study of diversity is highly useful in understanding the importance of biodiversity. The classification of biogeographical region on the basis of geographical pattern is highly useful in the identification of major biogeographical habitat. In India Western Ghat and Eastern Himalaya are the two mega diversity regions. In dangered endemic species should be protected for future generation in order to maintain state of equabilirium.

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Sustainable Development of a Nation-Role of Youth incorporated with Literature

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Abstract

In September 2015, the General Assembly adopted the 2030 Agenda for Sustainable Development that includes 17 Sustainable Development Goals (SDGs). The 2030 agenda of Population adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet. Indian environment has deteriorated rapidly due to unrestrained use of natural resources. Depletion of forests, population growth, vehicular emissions, use of hazardous chemicals and various other activities are mainly responsible for this degraded scenario of environmental health in India. Literature too has been a witness to the changing environment due to rapid development. A visionary English poet William Cowper echoed it in his poem written in 1785. When Mahatma Gandhi forayed in the national scenario through struggle for independence, he gave equal weightage to environmental issues. His powerful message of **"Sanitation is more important than independence"** still resonates with deteriorating situation in the current scenario**.** Even contemporary poets like Mac Adrone Adonay have made a clarion call to the youth to inspire change through his thought provoking poem. Young people which constitute a large part of the world's population will have to live longer with the consequences of current environmental decisions than their elders. Future generations will also be affected by these decisions and the extent to which they have addressed concerns such as the depletion of resources, biodiversity loss, and long-lived radioactive wastes. Hence youth participation will play a pivotal role in contributing positively towards eco conservation. This paper explores the hurdles faced by India in maintaining a clean environment while offering remedial measures for damage control.

Keywords: Sustainable Development, Environment, Literature, Future Generation

Introduction

In September 2015, The General Assembly adopted the 2030 Agenda for Sustainable Development that includes 17 Sustainable Development Goals (SDGs). Building on the principle of "leaving no one behind", the new Agenda emphasizes a holistic approach to achieving sustainable development for all[1].

The 17 sustainable development goals (SDGs) to transform our world:

GOAL 1: No Poverty
GOAL 2: Zero Hunger
GOAL 3: Good Health and Well-being
GOAL 4: Quality Education
GOAL 5: Gender Equality
GOAL 6: Clean Water and Sanitation
GOAL 7: Affordable and Clean Energy
GOAL 8: Decent Work and Economic Growth
GOAL 9: Industry, Innovation and Infrastructure
GOAL 10: Reduced Inequality
GOAL 11: Sustainable Cities and Communities
GOAL 12: Responsible Consumption and Production
GOAL 13: Climate Action
GOAL 14: Life Below Water
GOAL 15: Life on Land
GOAL 16: Peace and Justice Strong Institutions
GOAL 17: Partnerships to achieve the Goal

The 2030 agenda of Population adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must

go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests[2].

Hurdles in Sustainable Development:

Indian environment has deteriorated rapidly due to unrestrained use of natural resources. Depletion of forests, population growth, vehicular emissions, use of hazardous chemicals and various other activities are mainly responsible for this degraded scenario of environmental health in India. In the name of development we have constructed buildings and done away with all the elements of nature that make life so beautiful. We have filled the surrounding with stone, dirt and smoke creating massive concrete jungle unfit for human habitation. Some of the major environment concerns India is grappling with today are discussed below[3].

1. **Air Pollution**
2. **Open Defecation and Garbage Disposal-**
3. **Use of Plastics**
4. **Disposal of electrical wastes**
5. **Greenhouse Effect**
6. **Lack of Accountability and Lack of public participation**

Prudence in literature:

When a famous and a visionary English poet William Cowper wrote this poem in 1785, it sent forth an ominous message of ensuing pitfalls of advancement of technology and building up of cities against the simple pleasures of a country life ensconced in the lap of nature[4].

"God made the country and man made the town."
"Possess ye, therefore ye who bore about
In chariots and sedans, know no fatigue
But that of idleness and taste no scenes
But such as art contrives, possess ye still
Your element, there only can ye shine….".
….There is a public mischief in your mirth.
It plagues your country. Folly such as yours
Grac'd with a sword worthier of a fan,
Has made which enemies could nev'r have done,
Our arch of empire, steadfast but for you,
A mutilated structure soon to fall.

The anguish of moving away from nature and perils of towns are explicitly brought out in the poem which make it a contemporary calling on how man has led to his own doom.

Nearly a century later when Mahatma Gandhi forayed in the national scenario through struggle for independence, he gave equal weightage to environmental issues. His powerful message of **"Sanitation is more important than independence"** still reverberates and has become a mission statement in present day pursuit of 'Swacch Bharat". Preserving a clean and green environment is the first and foremost duty of every citizen in order to enjoy the fruits of "Mother Earth"[5].

Indispensability of youth in sustainable development of a nation can longer be ignored. Literature itself resonates with the voice of youth when upcoming poets like Mac Adrone Adonay make a clarion call to them in his thought provoking poem "The Future Lies to the Youth of Today" [6].

Turn the dark night into a gleaming day
Hear your beloved country, hear the nation's call
You can make difference in your own way
You are a clay of hope shaped by inspiration
And like a tree, you bloom bearing a fruit
Of awakened voices, bringing a solution
Arise you- brave, gentle and humble youth!
The future lies on you, the old ones shall rest
The seeds they've sown will reap, you all will harvest
"Hope on Thy Motherland", our great hero have said
Stand with deep courage, victory is never dead
With faith, together we will reach the pinnacle
Guided by good examples, not walking astray

But building unity, becoming a model-
Because the future lies to the youth of today.

Innovative strategies adopted by the Youth as harbinger of Sustainable Development: "Be the change"

With 356 million 10-24 year-olds, India has the world's largest youth population[7]. Confidence, Conviction and Character are the three most important qualities of a youth. Hence, they can significantly contribute in the sustainable development of the nation in innovative and revolutionary ways. Young minds can spread awareness about the environment through school/college teaching programs, cleaning campaigns, performing skits on green awareness, disseminating awareness among their friends, relatives and whole community. They can educate the community about cleanliness, roadside plantation, waste management, conservation of resources and sanitation.

Go Green from home

Make use of following tips to make a green home:-

(a) Switch off lights and save electricity. Make use of energy efficient light bulbs, ventilate and light up the house by opening windows and letting in the sunlight which is essential source of Vitamin D.

(b) Get serious about water and turn off the taps when not in use. Households that wash and dry efficiently save water and electricity.

(c) Air conditioning units should be set in shade so that they consume less power.

(d) Efficient use of energy is achieved by using appliances like refridgerator, dishwasher and washing machine to their maximum capacity

(e) Decrease reliance on conventional resources and explore the unconventional ones like Solar energy, Tidal energy and Wind energy.

Go Green on Transport

Sensible use of transport adopting following measures can help reduce pollution:-

(a) Maintain a clean and well serviced vehicle with regular pollution checks.

(b) Carpool or vanpooling is a smart way to save the environment. Also use of bus, trams or local trains will help reduce traffic pollution.

(c) "Work from home" concept initiated by many corporates is beneficial in saving green while spending quality time with family.

Go Green on Use of Compost and Gardening

Compost made out of natural fertilizers is a unique way of food garbage disposal.

(a) One can keep the area surrounding the house by using it for gardening.

(b) Growing of plants give a source of clean air and create a sink for air pollutants.

(c) Using of compost in gardening can serve the dual purpose of disposal of garbage waste and use of organic fertilizers for healthy growth of plants.

(d) The involvement of youth in such outdoor activities related with plants will be positively rejuvenating and a good break from the addiction to mobile phones and tabs.

Go Green on Garbage disposal

Educated youth can easily bring awareness about the segregation of garbage disposal. Getting oneself colour coated bins and then publicising this information through youth of schools and colleges can help make a difference:-

1. Plastic is Blue
2. Hazard is Red
3. Metal is Grey
4. Glass is yellow
5. Paper is white
6. Organic is green

Segregation of waste in two categories- **Bio Degradable**-include all the organic waste, kitchen waste, vegetable fruits, flower and leaves from the garden. **Non-Biodegradable**-Waste- include materials like plastic and glass, metal, diapers etc. Disseminating information about segregation of waste disposal is the need of the hour. The technical knowledge of the young minds can bring out innovative and novel ideas to manage this grave issue plaguing the country.

Go Green on E-Waste

Waste management, especially when it comes to plastic, has been given much attention over the years in the country. Still somehow, the issue of e-waste which is among the most dangerous kinds of waste.

Reduce: Avoid buying products that are of little importance in our daily life. Avoid purchasing gadgets as a status symbol.
Return: When bored with old phones do not throw it. Instead return it to its manufactures. Nokia, Apple and Dell are few such brands that ensure their old products are returned after usage for recycle. If there is no recycle facility in your vicinity, try donating or selling online.
Recycle: E-Scrap can be directed to reprocessing centres for conversion into raw materials that can help conserve finite natural resources including trees for paper peels, producing of plastics and polymers.

Conclusion-

Pressures on the environment will continue to increase. Global population increase, rising incomes, and agricultural and industrial expansion will inevitably produce unanticipated and potentially deleterious ecological, economic, and human health consequences. Young people which constitute a large part of the world's population will have to live longer with the consequences of current environmental decisions than their elders. Hence youth will play a pivotal role in contributing positively towards eco conservation.
Whilst youth participation starts from home, as a child learns the first lesson of cleanliness, water and power consumption, gardening and other issues from home, School and Universities can play and important role towards environmental sustainability and should emphasise on environment education.
Only then they can become a harbinger of change and serve as an example for the future generations. Now, it is essentially advisable to become protector, producer and caretaker of natural resources and not the predator, polluter and consumer of earth.

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Subaltern Study in Toni Morrison's Beloved

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Introduction- Toni Morrison's novel *Beloved* (1987) is a crossover text: part wizardry pragmatist and part slave story and part history. By portraying the story according to the perspectives of the characters who are slaves in the novel Morrison prevails with regards to comparing the real factors of servitude with its heritage, along these lines cross examining the minimization of the African-Americans in the standard history. Thusly, Adored features the issues and worries that straightforwardly influence the development of dark gentility and its job locally of slaves just as analyzing the verifiable pressing factor applied as a powerful influence for the setup of contemporary African-American womanhood. Obviously, there are numerous books which manage the subject of subjugation. In any case, Morrison accepts that they are quietness about numerous things like the personality emergency, the part of memory and so forth What this paper looks to investigate is the manner by which Morrison's *Beloved* gives an appropriate inferior voice to the minimized characters to legitimize their perspectives.
Keywords: Subaltern; Marginal; Slavery; Identity; Historiography

The term 'subaltern' was first coined by the Italian Marxist critic Antonio Gramsci to refer to the marginalised classes in a society. He has also opined that the term is not restricted to the economically subversive subjects of the society; rather it also refers to all the persons who have been denied their subjectivity on the basis of gender, sexuality, education or race. Gramsci's notion of the subaltern has influenced several intellectual thinkers of the twentieth century. But the term became popular, as we see now, with its application by a group of Indian communist historians, and the most important among them was Ranajit Guha. These postcolonial Indian historians have deployed the term subaltern in order to dig out the repressed voices of the marginalized communities or individuals from the traditional historiographies. Toni Morrison's tale *Beloved* (1987) is a cross breed text: part wizardry pragmatist and part slave story and part history. By portraying the story according to the perspectives of the characters who are slaves in the novel Morrison prevails with regards to comparing the real factors of bondage with its heritage, along these lines examining the underestimation of the African-Americans in the standard history. Thusly, Dearest features the issues and worries that straightforwardly influence the development of dark gentility and its job locally of slaves just as analyzing the recorded pressing factor offered as a powerful influence for the arrangement of contemporary African-American womanhood. Obviously, there are numerous books which manage the subject of servitude. In any case, Morrison accepts that they are quietness about numerous things like the personality emergency, the part of memory and so on What this paper looks to investigate is the manner by which Morrison's *Beloved* gives an appropriate inferior voice to the underestimated characters to legitimize their perspectives. These days the term inferior has made its excursion from historiography and postcolonialism to deconstruction and Foucauldian idea of force. Strategic maneuvers an indispensable job to make the character of the inferior subject. A world class individual can likewise be an inferior figure in a gathering. Here the deciding factor isn't economy yet power. For instance, the personality of Amla in Anita Desai's Voices around there is a scholarly inferior. She is instructed and not in the least monetarily poor, however she is the inferior figure in the novel since she has no office to talk. This idea of office is a begging to be proven wrong issue. Pundits like Gayatri Chakravorty Spivak, Harish Trivedi and numerous others have remarked much upon it. As indicated by Guha, the inferior awareness is self-sufficient and existed free of the tip top. Spivak has expressed that it is a result of the self-sufficient substance of the inferior cognizance that it has continuously stayed past the range of the desultory systems that created pilgrim subjects. Spivak in her popular article "Can the Subaltern Speak?" has addressed the title question in the negative and she has likewise said that the inferior must be represented. In any case, Harish Trivedi has expressed that the inferior can talk and has consistently spoken in his/her own methods of articulation, which was hard for the tip top, Eurocentric, average scholarly to get a handle on. P. K. Nayar, in his book Literary Theory Today, says:Harish Trivedi addresses a similar issue in his response to Spivak's question, "Can the Subaltern Speak?". Trivedi argues that the subaltern has always spoken, although in a native tongue. The issue is not whether the subaltern

can speak, rather it is whether the subaltern can speak the language of a metropolitan centre, that is English and the language of high theory. As Trivedi puts it, "Can the subaltern spivak?" (Nayar 207)Toni Morrison is considered as perhaps the main creators of the African-American abstract renaissance, the other remarkable essayists of which are Alice Walker and Toni Cade Bambara. The works of the renaissance ask reexamination and rearticulation of the specific encounters of African-American ladies. Crafted by Morrison portray her characters' encounters of being dark and underestimated. One significant effect on Morrison was the Black Esthetics Movement. The essential idea the development was that craftsmanship created by African-Americans ought to, notwithstanding imaginative concerns, address and help to change the political, social and monetary issues looked by African- American people group. As per the statutes of the Black Esthetic, the estimation of workmanship could be estimated by the degree to which it communicated the real factors of African-American individuals. Toni Morrison really prevails with regards to addressing the real state of the minimized in her books, and her endeavor to do this is ideal to be found in her celebrated novel *Beloved* (1987). The tale is set during the reproduction time in 1873, and fixates on the forces of history and memory. The past is a weight for the previous slaves in the novel which they resolutely attempt to neglect. Be that as it may, Sethe, the hero of the novel, neglects to do as such since her past is profoundly established in her memory. The past is a weight for the previous slaves in the novel which they adamantly attempt to neglect. In any case, Sethe, the hero of the novel, neglects to do as such since her past is profoundly established in her memory. The memory of her bondage frequents her present in the type of her perished girl, whom Sethe has killed eighteen years before to save her from the abominations of subjection. The tale depends on the genuine story of Margaret Garner, a previous slave, who in 1851 got away with her youngsters from Kentucky to Ohio. At the point when her proprietor and an assortment of individuals shaped by the U.S. marshal in Cincinnati found her, Garner slit the jugular of her kid girl prior to being caught. This account of Garner is utilized by Morrison in the novel for the personality of Sethe, however as the novel creates Sethe arises as a completely envisioned character. Morrison composes *Beloved* to retell the implicit stories and the repulsions of subjection which the conventional slave stories neglect to show. She sees that the talk of the contemporary dark development, as the traditional slave stories, doesn't give adequate guide to the subtleties of subjection. As per her, the African-Americans consider their past as a weight which they tenaciously attempt to get free of. They need to fail to remember the past and embrace current circumstances and to make another personality. Furthermore, in *Beloved* Morrison reminds her kin that the development just as the advancement of personality is preposterous by disregarding the dull sides of the past. The past isn't a weight; rather it is a legacy which they ought to keep in mind.Cherished gives us a striking image of the dehumanizing impacts of subjugation on the body and psyche of the slaves. The most risky of the impacts of servitude is its adverse consequence on the previous slaves' self-appreciations, and the novel contains different instances of self-distance. Paul D, for example, is so estranged from himself that at one point he can't tell whether the shouting he hears is his own or somebody else's. Thus, Paul D is extremely uncertain about whether he might actually be a genuine man, and he habitually ponders about his worth personally. The captives of the then America were definitely not treated as individuals, rather as items. They were purchased and sold in the market like the creatures as we see now. Their costs were resolved based on their solidarity, sexual orientation and age. Such was the state of the slaves prior to being purchased. Be that as it may, the genuine dilemma in their lives began when they were purchased by their proprietors. What's more, it is this dilemma that is portrayed by Morrison through the characters of Sethe, Paul D, Stamp Paid, Halle and others in her novel *Beloved*. The subhuman treatment of Sethe is to be discovered when we see Schoolteacher portraying her creature attributes to his understudies. At the point when Sethe hears Schoolteacher she feels distanced from herself.That is the reason she sees the most awesome aspect of herself just among her youngsters. However, incidentally they are moreover the survivors of character emergency. Denver conflates her personality with Beloved's, and Beloved feels herself as a matter of fact starting to crumble. Child Suggs has likewise been a prey to subjection which denied her to be genuine spouse, sister, girl, or cherishing mother. In this way, in a way Sethe is just conveying forward these never-finishing deadening impacts of bondage. This deficiency of character and doubt in self is likewise to be found in the character of Paul D. However, in contrast to Baby Suggs, he has built up a foolish adapting procedure to battle with the enthusiastic torment constrained on him through servitude. Any emotions he had were secured away in the rusted tobacco tin of his heart, and he inferred that one should cherish nothing too strongly. While the different slaves like Jackson Till, Aunt Phyllis and Halle got crazy, Paul D stayed consistent with his self at least some part if not the entirety. Sethe additionally fears that she will go

distraught toward the end. In a real sense she to be sure becomes frantic when she murders her own girl. Yet, this frenzy is just a piece of her significance. This is the best articulation of her adoration towards her little girl. The solitary way she could save her girl from the dehumanizing impacts of servitude was by slaughtering her. The perilous impacts of the organization of subjection isn't simply restricted to the individuals of color yet additionally to the whites who made it and in commendation of it. As such, servitude influences the aggregate personality of the Americans. This is the explanation that Morrison proposes that the country's personality, similar to the characters in the novel, should be recuperated. The eventual fate of America relies upon the understandings of the past, as we find in the novel Sethe protects a future with Paul D and Denver solely after going up against her past. It is significant for each general public to know its dim sides and simply by confronting them and taking injury from them movement can be accomplished. An inferior story is proper in portraying the covered up corners of a general public or a set of experiences. What's more, Morrison really portrays the story in the novel *Beloved* from Sethe's, Paul D's, Stamp Paid's and Baby Suggs' perspective and not from that of the Bodwins' and Schoolteacher's.Quite possibly the main characters in the novel is the personality of Denver. In the novel we see that her number one story is the tale of her introduction to the world and the past of her mom. Despite the fact that she gets some detail about her introduction to the world from her mom Sethe, the last doesn't uncover the awful past of her enduring as a slave. Here, Denver is by all accounts the agent figure of the perusers of African-American history who are denied of the information on the barbarities of subjection previously. Be that as it may, however the impact is something very similar, the causes are extraordinary. Though the perusers are not given the information on the past in light of the conventional historiography, Sethe doesn't advise her past to Denver since her past was too disastrous to even think about being described. However, Denver additionally plays another job before the finish of the novel—that of an instructor, the student of history, furthermore, the creator. She turns into a scholarly who needs to utilize the force of the white to characterize the African-Americans and make their set of experiences such that takes their past, their spirits and their mankind. To put it plainly, she needs to turn into the inferior historiographer. Accordingly, Denver is Morrison's forerunner, the antiquarian with her underlying foundations in African-American history and culture, who has a relationship with her predecessors.Toni Morison's *Beloved* is a reconceptualisation of the American historiography. Here she addresses the sad state of the captives of the past, who have been treated as underestimated figures in the customary history, through the demonstrations and awareness of Sethe, the agent figure of the slaves. Conflicting to the inferior voices like Sethe, Paul D, Baby Suggs et al, Schoolteacher addresses the voice of the Eurocentric white in the novel. He is a chilly, twisted and energetically bigoted sort of individual. He never prevails with regards to understanding the mind of the slaves; nonetheless, he never attempts to do as such. He is a mechanical man who regards the slaves as creatures and gives instructing exercises to his understudies on the creature highlights of the slaves. Accordingly, he is the encapsulation of the Eurocentric historiography, which falls shy of portraying the appropriate state of the minimized. Morrison composes Sethe's story with the voices of those individuals who verifiably have been denied the force of language. That is the means by which she gives an investigate of the predominant techniques for historiography in America. This endeavor of Morrison, similar to the inferior pundits, shows that epistemology is socially developed by a specific gathering. Morrison accepts that to portray the inferior, we need to feel the enthusiastic state of the inferior, which she does appropriately in the novel *Beloved.* Morrison legitimizes the brutal demonstration of the homicide of the infant kid by Sethe by perusing her mind. She slaughters her little girl to save her from the awful results of bondage. In any case, this demonstration of homicide keeps her intellectually and genuinely subjugated even following eighteen years of opportunity. Undoubtedly, she falls flat to clarify her dangerous demonstration and rehashes just the single sound "No. No. Nono. Nonono" (Morrison 193). It is Morrison who gives a voice to Sethe in her novel *Beloved*. Also, we realize that Sethe's voice is none other than that of Margaret Garner.

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A Geographical Analysis of Land Potentiality in Osmanabad District

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Abstract:

Natural resources we mean any product, thing or circumstance found by man in his natural environment that he may in some way utilize for his own benefit. In this sense, the resources provides by nature include air, climate, land, water, plants, animals, mineral ores, oil, coal and natural gases. These natural resources play important role in the processes of rural development. Thus rural development is directly related to agriculture development. Food sufficiency, rural employment and economic, political and social discontent are directly related to agriculture sector in rural area. Therefore land is main natural resource for overall agriculture development. Thus attention here is made to analyze land resource and land potentiality in Osmanabad district in Maharashtra state. Agriculture Density, Nutritional Density, Economic Density, Caloric Density, Physiological Density and Intensity of Population Pressure these are the indicators of the study of land potentiality.To determine Land Potentiality **Shrivastavas S. L. (1983)** method i.e. **"Proportional Standardized Mean and Composite Index"** has been utilized.With the help of composite index and indices value the spatial distribution of land potentiality is analyzed.

Key words: Development, Land Potentiality.

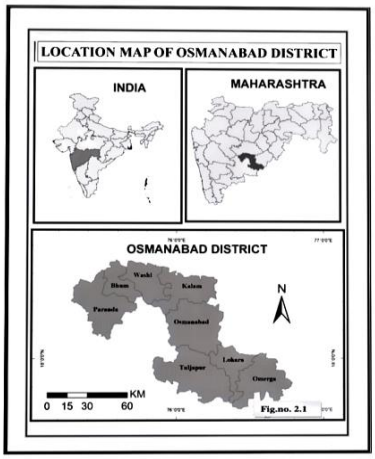
Introduction:+0

Natural resources as those commodities that are considered valuable in their natural farm. This means that the primary activities associated with it are extraction and purification, and not creation. Natural resources we mean any product, things or circumstances found by man in his natural environment that he may in some way utilize for his own benefit. In this sense the resources provided by nature include land, air, climate, soil, water, plant, animals, minerals and power resources, natural gas and solar radiation. (Katar Sing. (2009) Natural resources play very important role in the process of overall development. Mother Nature provides us natural resources free of cost. Agriculture activity are the way of life in rural sector or society. Thus rural development is directly related to agriculture development. Food sufficiency, rural employment and economic, political and social discontent are directly related to agriculture sector. (P.K. Roy (2003) Therefore land is main natural resource for overall agriculture development. Thus attention here is made to analyses land resource and land potentiality in Solapur district.

Study Region:

The Osmanabad district have located in South-East of Maharashtra. It is located north-eastern part of Solapur district. The Osmanabad district is lies between 17^0 37' North latitude to 18^0 42' North latitude and 75^0 17' East longitude to 76^0 47' East longitudes. The district has an area of 7481 Km². As far as area is concerned the district ranks 24th in the state of Maharashtra. The East-west extension is 280 Km and north-South is only 240 Kilometers.It bounded Solapur district at south-west and north east Ahmednagar district. At present there are eight panchayat samities i.e. Paranda, Bhum, Washi, Kalamb, Osmanabad, Tuljapur Lohara and Omerga. According to 2011 census, there are 735 habited villages in the district Out of the total geographical area 49.02 percent area is under hilly region and remaining 50.98 percent area is plateau region. The hilly region include Balaghat hills, Yeedshi hills and Tujapur hills. The area is rough broken dissected by number of stream.

Location Map of Osmanabad District:-



Descending down a scarp slope and draining towards north and east. The average height of the region is above 600 meters.The remaining area is plateau region average height is between 300 to 600 meters. There are monadnocks hills in the central part of Paranda, Bhum and Omerga tahasil.Generally the rivers flows from north-west towards south-east disrction. Manjara, Terna, Sina, Bhogawati, Benithora, Bori and harani are the major riversSoils of the district are shallow, medium, medium deep soil and deep soil.Out of the total geographical area 2.25 percent is under forest. Land available for cultivation is 8.61 percent, follow land is 10.12 percent and remaining 72.21 percent land is under net sown area. In 2011 the district as a whole has 1655776 population. Out of that 83.04 percent is in rural area and remaining 16.96 percentage at urban area.

Objectives:

Present Research paper incorporate following objectives:

1. To examine the indicators of Land Potentionality in Study region.
2. To analyze the spatial distribution of Land Potentiality in Osmanabad district.

Data Collection and Methodology:

To fulfil above objective the data regarding to six indicators of Land Potentionality i.e. Agricultural Density, Nutritional Density, Economic Density, Caloric Density, Physiological Density and Intensity of Population Pressure are collected from secondary source i.e. Socio-economic Review and District Statistical Abstract of Osmanabad District-2011. After the collection data is processed by using following method.

$$\textbf{1. Agriculture Density} = \frac{\text{Total Agriculture Population}}{\textit{Total Cultivated Area}} \text{ X } 100$$

$$\textbf{2. Nutritional Density} = \frac{\text{Total Rural Population}}{\textit{Total Crouped Area}} \text{ X } 100$$

$$\textbf{3. Economic Density} = \frac{\text{Total Rural Population}}{\textit{Total Net Sown Area}} \text{ X } 100$$

$$\textbf{4. Caloric Density} = \frac{\text{Total Rural Population}}{\textit{Total Area Under Food Crops}} \text{ X } 100$$

$$\textbf{5. Physiological Density} = \frac{\text{Total Population}}{\textit{Total Net Cultivated Area}} \text{ X } 100$$

$$\textbf{6. Intensity of Population Pressure} = \frac{\text{Caloric Density}}{\textit{Optimum Carrying Capasity}} \text{ X } 100$$

To determine Land Potentiality **Shrivastavas S. L (1983)** method i.e. **"Proportional Standardized Mean and Composite Index"** has been utilized. This is as following.

Where,

W= Weight of one particular indicator

Mean= Average of the series of one particular indicator.

SD = Standard deviation of same series.

$$Ci = \frac{x1w1 + x2\,w2 + x3\,w3 - - - - - -}{w1 + w2 + w3 \;\; - - - - - - - - - -}$$

Where,
CI = Composite Index
X = Particular Indicator
W= Weight of series of one particular Indicator

Depending upon the composite index the indices have also calculated by taking whole region as 100 (for average composite index) by using following formula.

$$\textbf{Indices} = \frac{\textbf{Composite Index of Any Unit } x}{\textbf{Average Composite Index}} \textbf{ x 100}$$

Then on the basis of mean and standard deviation of composite index of tahsils of Osmanabad district are divided in to low, moderate, high and very high development. On the basis of these statistical technique results and conclusions are drown.

Indicators of Land Potentionality in Study Region:

Following indicators are taken into consideration as land potentionality in Study region. These are as follow

Agriculture Density in Osmanabad District:

Agriculture density is the number of agriculture people per unit of cultivated land. Agriculture density means the ratio between agriculture population and cultivated land. (B.N. Ghosh, 1996) District as a whole has 98.65 agriculture density. But the spatial distribution is varies from tahsil to tahsil. High agriculture density i.e. > 125 is found in Lohara tahsil. Due to deep soil in southern part and Terna project leads high agriculture density. It is moderate ranging from 96 to 111 is found in Kalamb, Washi, Osmanabad and Paranda tahsil. While it is low in Bhum, Tuljapur and Umerga tahsil i.e. < 96 density per 100 hectare agriculture land. In Bhum it is low due to undulating surface and shallow soil in north part, in Tuljapur it is low due to heavy rainfall and high altitude in north, while it is low in Omerga due to heavy rainfall.

Nutritional Density in Osmanabad District:

It is also known as Physiological Density. Nutritional density omits the unproductive land from consideration. The number of person behind per square hector cultivable land.It is the ratio of cultivated land to total population. According to 2011 census district as a whole has 191.31 nutritional density. But the spatial distribution is varies from tahsil to tahsil.

Table No-1. Indicators of Land Potentionality in Osmanabad District (2011)

Sr. No.	District	Agriculture Density	Nutritional Density	Economic Density	Caloric Density	Physiological Density	Intensity of Population Pressure
1	**Paranda**	117.80	219.65	174.96	237.72	257.37	218.48
2	**Bhum**	94.72	175.94	196.45	205.34	204.99	216.41
3	**Washi**	108.02	195.15	190.01	270.87	238.61	220.89
4	**Kaliam**	99.29	150.38	237.72	196.41	238.00	239.72
5	**Osmanabad**	101.00	199.32	269.22	264.39	260.20	257.63
6	**Tuljapur**	60.43	152.55	204.02	174.55	168.70	279.15
7	**Lohara**	126.26	243.57	263.06	276.13	383.71	303.91
8	**Omerga**	81.69	193.93	270.98	213.93	260.75	319.19
Dist	**Mean**	**98.65**	**191.31**	**225.80**	**229.92**	**251.54**	**256.92**
	SD	**20.65**	**31.70**	**39.02**	**38.00**	**62.15**	**40.17**
	Weight	**4.776**	**6.035**	**5.787**	**6.050**	**4.047**	**6.396**
	Total Weight	**33.092**					

Complied by Researcher on the basis of Agruculture census of Osmanabad District-2011

Tabel 1 reveals that, High nutritional density i.e. > 212 is recorded in Paranda and Lohara tahsil. In Paranda it is high due to flat surface Sina and Dudhna river basin leeds high cultivated area while it is high in Lohara due to Terna irrigation leads high irrigation. It is moderate ranging from 182 to 212 is found in Washim, Osmanabad and Umerga tahsil. While it is low i.e. < 182 is found in Bhum. Kalamb and Tuljapur tehsil due to high altitude, heavy rainfall and shallow soil leeds low cultivated area.

Economic Density in Osmanabad District:

It is a ratio in between rural population and net sown area. The number of rural population behind per 100 hectare net sown area. **Table 1.1** reveals the district as a whole has 225.80 economic densities in 2011, but the spatial distribution is varies from tahsil to tahsil. High economic density i.e. >237 is found in Lohara, Umarga and Osmanabad tahsil. In southern part of Lohara and Umerga Benithore river and Terna project leeds high net sown area. It is moderate ranging from 205 to 237 is recorded in Kalamb tahsil. While it is low i.e. < 205 is found in Paranda, Bhum, Washim and Tuljapur tehsil due to undulating surface and heavy rainfall and north hilly region.

Caloric Density in Osmanabad District:

Number of rural people per 100 hectare area under food crops known as caloric density. It is ratio in between area under food crops and rural population. District as a whole has 229.92 caloric density per 100 hectare land. But the spatial distribution is varies from tahsil to tahsil. High caloric density is recorded in Osmanabad and Lohara tahsil i.e. > 240 per 100 hectare land. High irrigation leeds high area under food crops in Osmanabad and Lohara tehsil. The caloric density is moderate ranging from 207 to 240 is found in Paranda and Umerga tahsil. While it is low i.e. < 207 is found in Kalamb, Bhum and Tuljapur tehsil due to high altitude, steep slop heavy rainfall and undulating surface in northern part.

Man-Soil Density or Physiological Density:

It is ratio in between population and cultivated land. Number of agriculture working population per 100 hectare cultivated land known as physiological density. The table 1.1 indicates that district as a whole has 251.54 physiological density, but the spatial distribution is varies from tahsil to tahsil. High man-soil density i.e. >308 is recorded in Lohara tahsil. It is moderate ranging in between 238 to 308 is found in Washim, Osmanabad and Umerga tahsil. While it is low i.e. < 238 is found in Paranda, Bhum, Kalamb and Tuljapur tahsil.

Intensity of Population Pressure:

Intensity of population pressure is calculated the caloric density divided by Optimum carrying capacity in to hundred. It shows intensity of population pressure on agriculture land. District as a whole has 256.92 population per 100 hectare agriculture land. But the spatial distribution is varies from tahsil to tahsil. The table 1.1 indicates that high population pressure intensity i.e. > 284 is found in Lohara and Umerga tahsil. Dur to most of the part of Bhum, Washim, Kalamb and Osmanabad tehsil covers hills of Balaghat hill which adversely affected on population pressure on remaining tahsils. It is moderate ranging in between 250 to 284 is observed in Osmanabad and Tuljapur tahsil. While it is low i.e. < 250 is recorded in Paranda, Bhum, Washim and Kalamb tehsil.

Spatial Distribution of Land Potentionality in Osmanabad District:

The table number 2 indicates composite index and indices value of each district. The indices value of all tahsil ranging from mean minus one standard deviation to above mean plus one standard deviation. Therefore all the tahsil are grouped into following four groups. Then on the basis of mean and standard deviation of composite index of tahsils of Osmanabad district are divided in to low, moderate, high and very high land potentiality. On the basis of these statistical technique results and conclusions are drown.

Table No-2 Composite Index of Land Potentiality in Osmanabad District

Sr. No.	District	Composite Index	Indices Value
1	Paranda	214.23	96.14
2	Bhum	192.75	86.50
3	Washi	215.24	96.59
4	Kaliam	206.40	92.63
5	Osmanabad	240.25	107.82
6	Tuljapur	187.78	84.27
7	Lohara	284.29	127.58
8	Omerga	241.70	108.47
District	Average	222.83	100.00
		SD	14.16

Source: Compiled by researcher on the basis of table 1.1.

Very High Land Potentiality in Study Region:

Tahsils which have above mean to plus one standard deviation indices value i.e. > 114.16 are included in this category. Very high land potentiality is recorded in Lohara tahsil. It is very high in Lohara

due to Terna Major Irrigation project, deep fertile soil to its south, most of the north part of the tehsil high altitude and shallow soil leads fruit farming therefore land potentiality if high in Lohara tehsil.

High Land Potentiality in Study Region:

Tahsils which have mean to mean plus one standard deviation indices value i.e. ranging from 100.00 to 114.16 are included in this group. High land potentiality is found in Osmanabad and Umerga tahsil. It is high in Osmanabad tahsil due to Terna River development of surface irrigation and small three irrigation project leeds high land potentiality. While it is high in Umerga due to Benithora River and other three minor project leads high irrigation, fertile soil.

Low Land Potentiality in Study Region:

The tahsils which have mean minus one standard deviation to mean indices value i.e. 85.84 to 100.00 are included in moderate region. Low land potentiality is found in Bhum, Washim and Kalamb tahsil. Due to high altitude steep slope, undulating surface, high rainfall shallow mountain soil leads low land potentiality.

Very Low Land Potentiality in Study Region:

Tahsils which have below mean minus one standard deviation indices value i.e. < 85084 is found in Tuljapur. Due to its northern part hilly region, undulating surface and high rainfall, low fertility of soil leads low land potentiality.

Conclusion:

The forgoing analysis reveals that High agriculture density is found in Lohara tahsil. While it is low in Bhum, Tuljapur and Umerga. High nutritional density is recorded in Paranda and Lohara tahsil. While it is low found in Bhum. Kalamb and Tuljapur tehsil.High economic density is found in Lohara, Umarga and Osmanabad tahsil. While it is low in Paranda, Bhum, Washim and Tuljapur tehsil.High caloric density is recorded in Osmanabad and Lohara While it is low in Kalamb, Bhum and Tuljapur tehsil. High population pressure intensity is found in Lohara and Umerga tahsil. While it is low in Paranda, Bhum, Washim and Kalamb tehsil.Very high land potentiality is recorded in Lohara tehsil due to Terna Major Irrigation project, deep fertile soil to its south, most of the north part of the tehsil high altitude and shallow soil leads fruit farming therefore land potentiality if high in Lohara tehsil. It is also high in Osmanabad and Umerga tahsil. Low land potentiality is found in Bhum, Washim and Kalamb tahsil. Due to high altitude steep slope, undulating surface, high rainfall shallow mountain soil leads low land potentiality while it if very low in Tuljapur tehsil due to its northern part hilly region, undulating surface and high rainfall, low fertility of soil leads low land potentiality.

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Stage of Ground Water Development: A Geographical Analysis of Osmanabad District in Maharashtra State

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Abstract:

Water source may be divided into two broad groups' i.e. surface water and Ground water. Water resource emerges from nature's gift of rain, wells, rivers, lakes and streams. Water resources have tremendous importance in drought prone area, in relation to rural, agriculture and industrial development in turn rural development. It is easily seen that abundant water is finite resource and scarce in study region. Inadequate or poor water supply may lead to dry farming manifesting inferior subsistence farming. In such condition poor standard of peasant, inspire farmers to follow the traditional path of agriculture which resulted into low development. Thus, inadequate water resource has forced the farmers of this region to find out alternative cropping system in given agro-climate conditions. (Prithwish Roy, 2004). The formation of underground water takes place, when under hydrostatic pressure the permeable rocks are saturated with water from the surface, water moves down by gravity in to this zone. The upper level of ground water is called the water table. Surface water is inadequate in most parts of Osmanabad district in Maharashtra state. Therefore, groundwater is a single source of irrigation by well and tub well. Therefore, attempt is made to analyze stage of ground water resource development in Osmanabad district in Maharashtra state.

Key Wards – Water Resource, Development

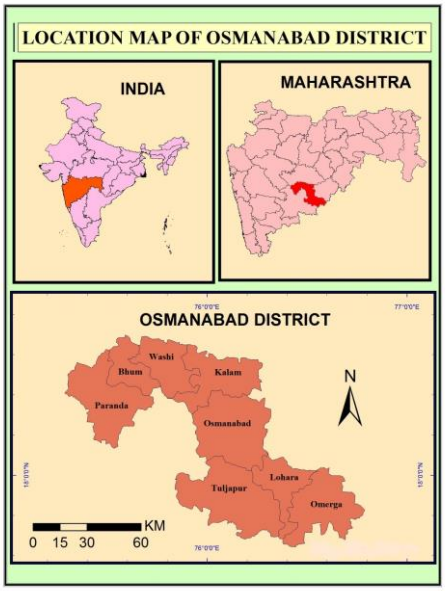
Introduction:

Water resources are sources of water that are useful or potentially useful. Uses of water include agricultural, industrial, household, recreational and environmental activities. The majority of human uses require fresh water. A graphical distribution of the locations of water on Earth only 3% of the earth's water is fresh water. Most of it in icecaps and glaciers (69%) and groundwater (30%), while all lakes, rivers and swamps combined only account for a small fraction of 0.3% of the Earth's total freshwater reserves. Sub-surface water, or groundwater, is fresh water located in the pore space of soil and rocks. It is also water that is flowing within aquifers below the water table. It is estimated that 70% of worldwide water is used for irrigation, 22% of worldwide water is used in industrial purpose and remaining 8% of worldwide water use is for household purposes include drinking water, bathing, cooking, sanitation, and gardening.Water resource emerges from nature's gift of rain, wells, rivers, lakes and streams. Water resources have tremendous importance in drought prone area, in relation to rural, agriculture and industrial development in turn rural development. It is easily seen that abundant water is finite resource and scarce in study region. Inadequate or poor water supply may lead to dry farming manifesting inferior subsistence farming. In such condition poor standard of peasant, inspire farmers to follow the traditional path of agriculture which resulted into low development. Thus, inadequate water resource has forced the farmers of this region to find out alternative cropping system in given agro-climate conditions. The formation of underground water takes place, when under hydrostatic pressure the permeable rocks are saturated with water from the surface, water moves down by gravity in to this zone. The upper level of ground water is called the water table. Surface water is inadequate in most parts of Osmanabad district. Therefore, groundwater is a single source of irrigation by well and tub well. Therefore, attempt is made to analyze ground water resource in Osmanabad district in Maharashtra.

Study Region:

The Osmanabad district is lies between 17^0 37' North latitude to 18^0 42' North latitude and 75^0 17' East longitude to 76^0 47' East longitudes. The district has an area of 7481 Km². As far as area is concerned the district ranks 24th in the state of Maharashtra. The East-west extension is 280 Km and north-South is only 240 Kilometre

Location Map of Osmanabad District:-



It bounded Solapur district at south-west and north east Ahmednagar district. At present there are eight panchayat samities i.e. Paranda, Bhum, Washi, Kalamb, Osmanabad, Tuljapur Lohara and Omerga. According to 2011 census, there are 735 habited villages in the district.Out of the total geographical area 49.02 percent area is under hilly region and remaining 50.98 percent area is plateau region. The hilly region include Balaghat hills, Yeedshi hills and Tujapur hills. The area is rough broken dissected by number of stream. Descending down a scarp slope and draining towards north and east. The average height of the region is above 600 meters.The remaining area is plateau region average height is between 300 to 600 meters. There are monadnocks hills in the central part of Paranda, Bhum and Omerga tahasil Generally the rivers flows from north-west towards south-east direction. Manjara, Terna, Sina, Bhogawati, Benithora, Bori and harani are the major rivers. Soils of the district are shallow, medium, medium deep soil and deep soil.Out of the total geographical area 2.25 percent is under forest. Land available for cultivation is 8.61 percent, follow land is 10.12 percent and remaining 72.21 percent land is under net sown area. In 2011 the district as a whole has 1655776 population. Out of that 83.04 percent is in rural area and remaining 16.96 percentage at urban area.

Objectives:

The present research paper depends on following objectives

1) To find out the gap in between recharge and drift of ground water in study region.
2) To analyze the distribution of the stage of ground water development in Study region.

Data Collection and Methodology:

To achieve above objective the data regarding to the ground water resource in Osmanabad district in Maharashtra state Socio-economic review statistical abstract of Osmanabad and Department of ground water survey in Oamanabad district are the sources form secondary data collection. The data is converted into percentage. Net Ground Water Availability is calculated following method **Net Groundwater Availability** = Annual Recharge- Natural discharge during non-Monsoon Season. Stage of ground water development is calculated by using following formula.

$$\textbf{Stage of Ground Water Development} = \frac{\text{Ground water Drift For all Uses}}{\textit{Net Annual Ground Water Availability}} \text{x100}$$

Annual Ground Water Recharge in Osmanabad District:

Ground water is recharged in Monsoon and Non monsoon season. The table 1.1 shows ground water resource in Osmanabad district. Rainfall, types of soil, slope of land, development of surface irrigation and so many issues related to human being are responsible for ground water recharge in study region. District as a whole as 75621.38 net annual ground water availability but spatial distribution is varies from tehsil to tehsil in Osmanabad district. High ground water recharge i.e. > 12851 is recorded in Tuljapur tehsil. I t is high in Tuljapur due to heavy rainfall, shallow soil, high irrigation and high number of minor and medium irrigation project. It is moderate ranging from 8573 to 12851 is found in Paranda,

Kalamb, Osmanabad and Umerga tehsil. While ground water recharge is low i.e. < 8573 in Bhum, Washim and Lohara tehsil. In Bhum, Washim it is low due to high altitude, steep slope leads high soil erosion.

Net Annual Water Availability in Osmanabad District:

Table No-1 reveals that district as a whole has 101276.2 annual water availability. But the spatial distribution is varies from tahsil to tahsil. Net ground water availability is the gap between net ground water recharge and gross drift of ground.

Table No.1.**Ground water resource in Osmanabad District: 2011**

SR. no.	District	Annual Ground Water Recharge	Net Annual Water Availability	Gross Drift	Net Ground Water Balance	Stage of Ground Water Development
1	**Paranda**	9184.68	12002	7698.01	4304.61	64.14
2	**Bhum**	4295.22	5613.94	3314.21	2299.73	59.04
3	**Washi**	6353.87	8065.67	3332.06	4733.61	41.31
4	**Kaliam**	8617.67	12464.79	7228.1	5236.69	57.99
5	**Osmanabad**	12394.97	17900.04	11703.55	6196.49	65.38
6	**Tuljapur**	17128.94	21412.44	14360.81	7051.63	67.07
7	**Lohara**	6117.47	8391.38	4648.26	3743.12	55.39
8	**Umerga**	11528.56	15425.94	11233.89	4192.05	72.82
District	**Average**	**75621.38**	**101276.2**	**63518.89**	**37757.93**	**62.72**

Ground water survey Report -2011

High ground water availability i.e.>16146 is recorded at Osmanabad and Tuljapur tehsil. It is high in Osmanabad tehsil due to high altitude, heavy rainfall and dense forest, while it is high in Tuljapur due to heavy rainfall. It is moderate ranging from 10880 to 16146 is found in Paranda, Kalamb and Umerga tahsil. Low ground water availability i.e. <10880 is recorded in Bhum, Washim and Lohara tehsil. In Bhum it is low due to high growth of population leads population pressure on land. It is low in Washim due to low rainfall, while it is also low in Lohara due to high population pressure.

Gross Drift of Ground Water in Osmanabad District:

Drift of ground water is depending on its utilization. Uses of water include agricultural, industrial, household, recreational and environmental activities etc. purpose due to population pressure. High ground water drift i.e. > 10310 is recorded in Osmanabad, Tuljapur and Umerga tehsil. In Osmanabad tehsil it is high due to high population growth leads high agriculture density resulted high drift. In Tuljapur it high due to agriculture development. While it is high in Umerga due to fruit, vegetable and food farming lead high agriculture density resulted high drift. It is moderate ranging from 6996 to 10310 is recorded in Paranda and Kalamb tehsil. Gross drift of ground water is low i.e. 6996 is found in Bhum, Washim and Lohara tehsil. It is low in Bhum and Washim due to high altitude steep slop leads low agriculture development. While it is low in Lohara due to low population leads low agriculture development.

Stage of Ground Water Development in Osmanabad District:

The stage of ground water development is depending on its utilization. If the utilization of ground water is high says the stage of ground water development is high. In other word if the net ground water balance is high it indicates low stage of ground water development due to low utilization the water balance is high.The spatial distribution of stage of ground water development is ranging from mean minus one standard deviation to mean plus one standard deviation.

1. Very High Stage of Ground Water Development:

Very high stage of ground water development i.e. above mean plus one standard deviation > 69.51 percent is recorded at Umerga tehsil. It is very high in due to Baithora river, high irrigation, deep and fertile soil leads high agriculture density. High ground water is utilized for agriculture purpose in non-monsoon season due to area under food, fruit and vegetable farming leads high ground water development.

2. High Stage of Ground Water Development:

High stage of ground water development is ranging from mean to mean plus one standard deviation i.e. ranging from 60.39 to 69.51 percent is recorded in Paranda, Osmanabad and Tuljapur tahsil. Due to Sina and Dudhana river, fertile soil in basin are leads high net sown area in Paranda tehsil. It is high in Osmanabad due to high growth of agriculture density leads high population growth resulted high stage of

ground water development. While it is high in Tuljapur due to high population leads high population pressure on agriculture land resulted high use of ground water.

3. Moderate Stage of Ground Water Development:

Moderate ground water development ranging from mean minus one standard deviation to mean i.e. 50.87 to 60.39 is recorded at Bhum, Kalamb and Lohara tehsil. It is low in Bhum and Kalamb due to high altitude, steep slope, dense forest leads remote area low agriculture development resulted high ground water balance. While it is low in Lohara due to low rainfall and low growth of population and development of surface irrigation resulted low stage of ground water development.

4. Low Stage of Ground Water Development:

Low stage of ground water development i.e. < 50.87 is recorded at Washim tehsil. It is low due to high altitude, shallow soil, low agriculture density leads low agriculture production and low pressure on agriculture land.

Conclusion:

High ground water recharge is recorded in Tuljapur tehsil due to heavy rainfall, shallow soil, high irrigation and high number of minor and medium irrigation project. While it is low in Bhum, Washim and Lohara tehsil. In Bhum, Washim.High ground water availability is recorded at Osmanabad and Tuljapur tehsil while it is low at Bhum, Washim and Lohara tehsil High ground water is recorded in Osmanabad, Tuljapur and Umerga tehsil. While it is low in Bhum and Washim and Lohara tehsil. Very high stage of ground water development is recorded at Umerga tehsil. High stage of ground water development is found in Paranda, Osmanabad and Tuljapur tahsil. It is Moderate at Bhum, Kalamb and Lohara tehsil. While low stage of ground water development is recorded at Washim tehsil.

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Piscivorous Birds Of Gharni Dam Gharni Dist Latur (M.S.) India

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Abstract

The Present surveydeals with the study of piscivorous birds of Gharni Dam Gharni dist Latur (M.S.) India. The survey was carried out during the year 2019 (January to December).
Irrigation fish culture is the main purpose of this Dam which is constructed. Along with irrigation, fish cultur, Drinking are the other purpose of this tank. The fishes like major carps, cyprinus carpio, mystus seenghla, channa species etc, were found in this dam. The piscivorous birds were observed near this dam. These fishes are harmful to th fishes a provide damage to fish culture practices by consuming the stocked fishes.

Key Words-: Piscivorous birds, Gharni Dam Gharni.

Introduction

The fish eater birds provide damage to fish culture by consuming the fishes. Birds are scavengers of nature and also pollinating agents (Singh 1929, Davidar 1985) but fish eater birds were studied by Ghazi (1962) and Kulkarni et al (2006). The Gharni Dam mainly used for irrigation and fish culture. The fish eater birds observd near this dam. The present survey was undertaken for the observation of piscivorous birds of this dam. This survey is useful to control population of predatory birds.

Material and Methods

For this survey work the frequent visits were done in the year 2019 (January to December) in the morning hours. As per the guidelines of Ali and Ripley (1996) the birds were identified.

Results And Discussions

In the present work the only 5 (five) species of piscivorous birds were obsrved with the help of binocular 7x and 8x magnifications. The birds were identified on the spot out of five4 are residential migratory and 1 are residential. The birdsaffecting fish culture of the dam. The control of birds is essential by reducing their population. It can be removing marginal aquatic weeds by using spring strap. The table No I shows the piscivorous birds.

Table No I

Sr.No.	Common Name	Scientific Name	Total Count	RM/M
1	Brhaminy shelduck	Toduraferruginea	10	Residential Migratory
2	Little EGret	Egret grazetta	12	Residential Migratory
3	Common coot	Fulcia-atra	10	Residential Migratory
4	Terek sandpiper	Xenuxcinereius	08	Residential Migratory
5	Small blue kingfisher	Alcedoatbis	12	Residential

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Human Rights and Environment

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Abstract

It has rightly been said that without environment human being cannot survive on earth so whenever the issues related to environment are raised they are directly related to the existence of human life and now a days when we look around we find that in the name of developmental works large amount of destructive works are carried out by not only the third world nations but also by developing and developed nations. As the human rights conventions declaration has clearly said and have given guidelines to all the nations to take measures for the betterment and protection of the people in every aspect.

Keywords: Environment, human rights, protection, etc;

Introduction:

After the Rio de Janeiro conference the United Nations conference on economic development the Conference decided to help all the governments to think and reconsider about the economic development and find solutions in minimizing the destruction and irreplaceable natural resources and pollution of the planet earth. Several measures were discussed and were tried to make it workable which will save the environment despite international efforts, environmental degradation had increased at an alarming rate. In this conference there were three major agreements which the Declaration on Environment and Development is the most important and are of concern in the context of human rights and the environment. The first of it was Human beings should be at the centre of all concerns for sustainable development of any kind. They are to be guaranteed healthy and productive life in peace and harmony with the environment. And another Principle which was passed in the conference was In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it. From both these principles which were finalized we can say that this convention clearly gave importance to the conservation and preservation of the environment

.**Methodology**:

The research is mainly based on the secondary data that is available in the forms of scholarly articles, newspaper publications, various surveys conducted by environmental agencies.

Environmental issues and India:

when we talk about our country we can clearly raise the issue which comes in our day to day life. Issues like water pollution, air pollution, forests and agricultural degradation of land, public health, livelihood security for the poor etc; issues which are alarming includes burning of waste in the name of fuel, pouring of chemical waste in the river water. Dumping of waste in the areas nearby to localities also causes to the health of people. Every year we come across the news showing the level of pollution that national capital of our country crossed and this becomes the headlines of international news also which needs to be addressed by our political will power some efforts have definitely been taken but that seems to be very little.When we talk about the solid waste management we need to go through the guidelines given by the Hon. Supreme Court of India which clearly says that, all Indian cities to implement a comprehensive waste-management programme that would include household collection of segregated waste, recycling and composting. Even though the directions and guidelines given by the apex court they have simply been ignored and has been side lined. There remains a necessity of taking comprehensive decision that to at the political will.India is again said to be a country of festivity because of its vast cultural and religions being practiced across the country and during these festivals there is large amount of sound pollution which is causing a problem of hearing and sometimes people becoming deaf.The major Bhopal Gas tragedy has left worst memories in the life of Indians when we talk about the industrial hazards this has made us to

displace such kind of industries from the local areas to faraway places the losses caused to the human being has also created the problem of human rights violations both by the ruling parties and the ministry which gave permissions for setting up of such an industries.

Conclusions:

1. Major projects have caused devastating effects on the tribal population.
2. Displacement has created a problem in adjustment
3. All kinds of pollutions has caused the mankind

Suggestions:

1. Every issue related to the environment need to be highlighted as the issue of human rights.
2. Ministry of industries, refinery, health, agriculture, finance should be made more accountable while considering the environmental issues.
3. Establishment of major projects should be considered on the basis of human rights
4. All kinds of pollutions needs to be properly addressed and within the time framework.

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The Prisoner of Zembla as a farce or Parody of the Medieval Romance

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William Sidney Porter (O' Henry) was born on September 11, 1862, in Greensboro, North Carolina. His father's name was Dr. Algernon Sidney Porter who was a practicing physician at Guilford country. His mother's name was Mary Jane Virginia Swaim. O' Henry inherited artistic temperament from her. Dr. Algernon had served during the Civil War (1860-65). By the end of that War he suffered financial losses. The death of Mary during the child birth was another shock to him. After her death he became very unhappy. He withdrew himself from the everyday activities of the world. He gave up his medical profession and became very introvert. He gave the custody of his children to his mother and a younger sister, Evelina and spent his time by working with his machines in his barn. He became a sad alcoholic. O' Henry was highly influenced by his aunt Evelina. She inspired him to turn to short storv, She acted as his teacher. Later he worked at his uncle's drug store. During that period he saw various sort of people, their strange ways of behaviour and ways of speaking. This provided him with a material for his short stories. He also had an experience in cattle rearing and working on the farms. He also learned how to repair fences etc. This is seen in his characters of shepherds or herdsmen. He spent two years in Texas where he read much poetry, fiction and history. He prepared illustrations on these experiences for the book of memoires of Mr. Joe Dixion. In 1882 he felt that he was suffering from tuberculosis. Therefore, he decided to move to in a dry climate. He left the płace Greensboro and moved to a ranch (large tract of land) in southwest Texas. He learned there how to repair fences, cattle roping and cooking for the farm workers. Porter heard interesting and exciting stories about ruthless criminals and the Texas Rangers. All such tales and anecdotes gave rise to his western classics or stories with the West. O' Henry was the representative of the lower class people. He had sympathy for the poor people and their sufferings. In many of his stories he shows a genuine sympathy for the poor the young poor couple, with the down and outer, the drifter, or the alienated victims of social structure. sympathy as the main feature of his works and is a projection of his personal loneliness, O' Henry's original feeling for the poor people has a great deal to do with his own experience full of frustration.

O' Henry had sad experiences in his early years. His mother died when he was three years old, then he was brought up by his aunt, and virtually became an orphan. He worked in his uncle's drugstore with little schooling. In 1887. O' Henry fell in love with a girl called Athol Estes, but her family didn't agree to the marriage of the young couple. As a result. the two young people had no choice but to run away together. In 1897, O. Henry was charged with embezzlement of funds from the Austin, Texas bank. To avoid being arrested, he fled to New Orleans and Honduras. His wife became ill during his absence, so he had to come back secretly. One trouble followed another. He was heart-broken due to grief for his wife's death. Finally he was arrested and sentenced to five years in the Ohio prison. In prison he thought of his own misery and humiliation, also the lower people's lives around him. He was decided to write as a mouthpiece of the poor people. It is obvious that due to O' Henry's miserable experience, he expresses a deep sympathy for the lower people in his stories. In many of O' Henry's short stories, he wrote about the lives of the poor and ordinary people Itving in New York, as well as in the other places. In "The Four Million", O' Henry wrote about the conditions of people who visited cafes and boarding houses. He also wrote about the white-collar men and women, art students, waiters, factory girls, cops and crooks etc. In "Heart of the West", he presents stage drivers, judges, ranchers, miners, Spanish beauties, drifters and bandits. In "The Voice of the City", he wrote about the down-and-outer, the drifters, the outsiders etc. These are only a few examples of his writings about ordinary people. The realistic portrayal of the ordinary people is one of the special characteristics of O' Henry's stories. He tried to give a minute description about the lives of

the ordinary people because he had gathered experience of several different occupations and had closely seen all types of the lower people.*The prison of Zembla* is a very short story. O' Henry has tried to use an intertextual mode of the tradition of the medieval romances. The narrative is written in a comic mode. *The Prisoner of Zembla* is a humorous and farcical tale that tells us about a royal tournament organized by a king to find out a suitable youngman for his daughter. In the competition a young student wins the heart of the princess. He wins the wrestling fight. The young student is in fact a knight. He gets the patent for the monkey wrench. However, he rides on a horseback and goes away from there without taking with him the king's daughter. There is a humorous turn at the end of the story. Even after winning the tournament, the hero does not marry or take the King's daughter with him.This humorous short story is taken from O'Henry's collection of Western stories, Most of these stories were published in the book *The Rolling Stone* These stories reveal O Henry's expertences on the frontier or the Western way of ife, the western culture and society. In these stories we find the typical Western humour, satire, burlesque and farcical elements.*The Prisoner of Zembla* there is a blend of the medieval tradition of romance and the Western spirit of adventure. The writer presents an amusing account of a tournament or competition to select a prospective husband for his beautiful young daughter, Princess Ostla. The king announces that he would marry his daughter to the winner. Among the participating khights there is a poor student. He has also come there to try his luck. We are told by the writer or narrator that the princess Ostla has been in love with him. When he enters the arena on his worst horse in rusted and poor saddle, she smiles at him The other 217 knights realize that the princess would select him as her husband so all of them opt out of the fighting contest They collect food for their horses from the treasurer and go away Only two knights remain on the ground, and one of them is the poor student loved by the princess. Both the knight fight for two hours and finally the student-knight defeats the other knight. The king congratulates him. He tells him that he would grant or fulfill his (the student/knight's) wish. He would give him whatever he wants. It is at this point the story takes a humorous and farcical turn. The readers expect that the victorious knight would ask for the hand of the princess but this does not happen. Contrary to their expectations, the student requests the king to glve him a letter of endorsement to the patent of the Schnelder's famous monkey wrench. The word Schneider is German in origin. It is a surname dertved from the verb "to schneiden". It means to cut. The (student) knight bows down his head before the king to show respect to him. The sense of curtosity is stretched too much. but the story's plot quickly leads to anti-thesis. The balloon of expectation gets burst. Instead of asking for the princess or wealth, the knight simply wants ordinary things. He just needs the king's letter of endorsement authorizing him to sell the cutter wrench that is used for turning or loosening nuts and bolts. This is a parody of the medieval romances.There is an element of farce in the story. For example, when he lover-knight is talking to her father, the princess is busy biting the chewing gum. Her words that she cannot marry as she is chewing the gum are highly ridiculous. It shows her childishness. The seriousness of the situation is replaced by the humour and parody. It is quite strange that the princess does not behave in a dignified manner. Moreover, the knight appears to be a practical-minded person. For him the commercial, business interests are more important than love. O' Henry has criticized the economic individualism through this episode. He has attacked the growing commercialization of the American culture of the late nineteenth century and the early twentieth century.There is nothing heroic about the knight's demand for the king's Ietter of endorsement. This is a parody of chivalric romances of the Middle Ages (600 AD- 1200/1500 AD). By using the German name Schneider for a mechanical tool like a monkey wrench the writer ridicules the European tradition of the medieval romances. Because the name is European and hence fit for ridicule from the American point of view. In the 19th century American culture there was a strong dislike of the European culture. The 19th century American intellectuals like Emerson wanted to throw away the cultural (past) burden of Europe. They wanted everything that was new and fit for the American culture.The language of conversation of the king, the Princess and the others in general is highly hyperbolic or full of exaggeration. It is very farcical. It provokes laughter. When the victorious knight demands letter of the king's endorsement (authorized licence) to produce and sell the 'monkey' wrench the king takes the literal meaning of the word 'monkey, He says that there is no monkey in his kingdom. This reply is highly humorous. It shows his ignorance of the reality. By displaving his ignorance, he makes a monkey or fool of himself.The

writer seems to ridicule the tradition of the romantic, courtly love, because for the lover-knight buying the patent right for the tool 'monkey wrench' is more valuable than sentimental love. O'Henry has shown a clash between tradition and modernity, between commercial values and the tradition of romantic love. In the medieval chivalric romances the knight- heroes were ready to do anything for their beloved-heroines. They treated them with utmost respect and spoke in a highly dignified language. But the knight hero of this tale does not care for the princess. He does not bother about love. Interestingly, the princess-heroine is more interested in chewing the commercial product 'gum' rather than relishing the genuine love. We can conclude that her love is not genuine. It is not love at all. When the knight gets the king's endorsement to the patent rights for the wrench, he rides away from their creating a suspicion in the king's mind. The king might suspect that the knight might be some criminal prisoner impersonating as a knight. He might misuse the wrench for breaking treasures. However, this possibility is hinted at through the reaction of the king who "fell dead on the grandstand" wondering the knight's departure without caring for his daughter.

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The Problems in Agricultural Sector in India

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Abstract

India is mostly depend upon agricultural sector country, more than 56% population is engage in agricultural activity. Farmer is play the parental role in India he produce the grains and supply to the people. The history of Agriculture in India dates back to Indus Valley Civilization India ranks second worldwide in farm outputs. As per 2018, agriculture work force contributed 17–18% to country's GDP. In 2016, agriculture and allied sectors like animal husbandry, forestry and fisheries accounted for 15.4% of the GDP (gross domestic product) with about 41.49% of the workforce in 2020. India ranks first in the world with highest net cropped area followed by US and China. The economic contribution of agriculture to India's GDP is steadily declining with the country's broad-based economic growth. Still, agriculture is demographically the broadest economic sector and plays a significant role in the overall socio-economic fabric of India. The total agriculture commodities export was US $3.50 billion in March - June 2020. India exported $38 billion worth of agricultural products in 2013, making it the seventh largest agricultural exporter worldwide and the sixth largest net exporter. Most of its agriculture exports serve developing and least developed nations. Indian agricultural/horticultural and processed foods are exported to more than 120 countries. Hence all these are good quality of Indian agriculture but some problems are ahead that will be discussed in detailed

Key Words - Indian Agricultural, GDP, Work force, Problems

Introduction

Recently, India witnessed several protests and agitations by the farmers. This trigged the debate about agriculture related problems in India. Here we have explained what are those problems which have been plaguing agriculture sector in India. The problem of small and fragmented holdings is more serious in densely populated and intensively cultivated states like Kerala, West Bengal, Bihar and eastern part of Uttar Pradesh where the average size of land holdings is less than one hectare and in certain parts it is less than even 0.5 hectare. Rajasthan with vast sandy stretches and Nagaland with the prevailing 'Jhoom' (shifting agriculture) have larger average sized holdings of 4 and 7.15 hectares respectively. States having high percentage of net sown area like Punjab, Haryana, Maharashtra, Gujarat, Karnataka and Madhya Pradesh have holding size above the national average.

The following points will highlight the seven major problems of Indian agriculture.

1. Instability: Agriculture in India is essentially depends on monsoon. As a result, production of food-grains fluctuates year after year. A year of abundant output of cereals is typically followed by a year of acute shortage. This, in its turn, results in price income and employment fluctuations. However, for the thirteen year, in successive a typical monsoon has been observed.

2. Cropping Pattern: The crops that are grown in India are divided into two broad categories: food crops and non-food crops. While the previous comprise food-grains, sugarcane and other beverages, the latter includes differing types of fibers and oilseeds. In recent years there has occurred a fall in agricultural production mainly because of fall within the output of non-food articles. Moreover Rabbi Production has become as important as Kharif production within the late 1990s. In 1999-2000, for example, of the whole grain production of 209 m. tones, Rabbi accounted for 104 m. tones. This means a structural change in agricultural production.

3. Land Ownership:

Although the ownership of agricultural land in India is fairly cosmopolitan, there is a point of concentration of land holding. Inequality in land distribution is additionally because of the actual fact

that there are frequent changes in land ownership in India. It's believed that big parcels of land in India are owned by a relatively small section of the rich farmers, landlords and money lenders, while the overwhelming majority of farmers own little or no amount of land, or no land within the least. Moreover, most holdings are small and uneconomic. Therefore the advantages of large scale farming can't be derived and price per unit with 'uneconomic' holdings is high, output per hectare is low. As a result peasants cannot generate sufficient marketable surplus. In order that they aren't only poor but are often in debt.

4. Sub Division and Fragmentation of Holding: Due to the expansion of population and break down of the joint family system, there has occurred continuous sub-division of agricultural land into smaller and smaller plots. Sometimes small farmers are forced to sell a number of their land to repay their debt. This creates further sub-division of land. Sub-division, in its turn, results in fragmentation of holdings. When the dimensions of holdings become smaller and smaller, cultivation becomes uneconomic. As a result a big portion of land isn't brought under the plough. Such sub division and fragmentation make the efficient use of land virtually impossible and increase the difficulties of accelerating capital equipment on the farm. These factors account for the low productivity of Indian agriculture.

5. Land Tenure: The tenure system of India is additionally away from perfect. Within the pre independence period, most tenants suffered from insecurity of tenancy. They might be evicted any time. However, various steps are taken after Independence to supply security of tenancy.

6. Conditions of Agricultural Laborers: The conditions of most agricultural laborers in India are away from satisfactory. There's also the matter of surplus labour or disguised unemployment. This pushes the wage rates below the subsistence levels.

7. Other Problems:

There are various other problems of Indian agriculture. These are related to:

(i) The systems and techniques of farming,

(ii) The marketing of agricultural products and

(iii) The indebtedness of the farmers.

(iv) The Systems and Techniques of Farming:

(v) Neglect of crop rotation:

(vi) Inadequate use of manures and fertilizers:

(vii) The use of poor quality seeds:

(viii) Inadequate water supply:

(ix) Inadequate use of efficient farm equipment:

Successful conduct of agricultural operations depends upon a correct rotation of crops. If cereals are grown on a plot of land its fertility is reduced to some extent. This can be restored if other crops like pulses are grown on an equivalent plot on a rotational basis. Most farmers in India are illiterate and don't understand this important point. Since they're not conscious of the necessity for crop rotation they use an equivalent sort of crop and, consequently, the land loses its fertility considerably. Inadequate use of manures like cow-dung or vegetable refuge and chemical fertilizers makes Indian agriculture much less productive than Japanese or Chinese agriculture. In India, not much use has been made from improved sorts of seeds. The main cereals (rice, millets and pulses) are still grown chiefly with unimproved seeds.Farmers also suffer thanks to lack of irrigation facilities. Moreover, ordinary sorts of seed are often replaced by better varieties if there's an assured supply of water. The need for the development of minor irrigation works of an area nature is both urgent and pressing. In fact, the entire water potential within the country is quite capable irrigate the entire areas under cultivation. However, this problem is one among discovering cheap and straightforward methods of utilizing these vast supplies of water.The method of cultivation in most areas of India are still primitive. Most farmers still use native plough and other accessories. However, the matter isn't one among shortage of recent machinery. The real problem is that the units of cultivation are too small to allow the utilization of such machinery.

Agricultural Marketing One of the most causes of low income of the Indian farmers is that the problem in marketing their crops. Due to the tiny size and scattered nature of agricultural holdings, the productivity per acre is low. Consequently, the gathering of those surpluses for the aim of selling

presents a serious problem.Agricultural marketing problems arose due to the lack of communications, i.e., connecting the producing centers with the urban areas which are the main centers of consumption. The difficulty of communication prevents the farmer from marketing his own produce. So he has got to believe variety of middlemen (intermediaries) for the disposal of "his crops at cheap prices.

Agricultural Credit: The typical Indian farmer is nearly always in debt. The farmer is a perennial debtor.Once the farmer falls, into debt thanks to failure or low prices of crops or malpractices of moneylenders he can never begin of it. In fact, an outsized a part of the liabilities of farmers is 'ancestral debt'. Thus, in conjunction with his landed property, he passes on his debt to his successors. There are four main causes of rural indebtedness:

(a) Low earning power of the borrower
(b) Use of loan for unproductive purposes
(c) The excessively high rate of interest charged by the moneylenders
(d) The manipulation of accounts by the lenders

Agricultural Prices In order to extend food production, it's necessary to make sure that prices of food-grains set by the government from time to time give sufficient incentive to farmers in order that they can earn reasonable incomes. In India, bumper crop results in fall in revenue of farmers.

Need for price stabilization: In view of the rising and fluctuating trends in agricultural prices, there's need for stabilization of costs of agricultural commodities. Price fluctuation in any direction may spell disaster since both rising and falling prices have had harmful consequences. The Agricultural Prices Commission (now it's called Agricultural Cost and Price Commission) takes up variety of aspects of price policy, like minimum support prices (MSP), procurement prices (PP), issue prices of food grains.

Conclusion In recent years while the well to do farmers have benefitted from the hikes in support prices, small and marginal farmers, faced with difficulties within the matter of credit and obtaining the right type of inputs, have been in trouble. Paradoxically two years of an upswing in agriculture have led to a pointy fall in prices and added to the distress of farmers in most parts of the country. At the same time, an recedented pileup of procured food grains held by State agencies totaling over fifty million tones has added to the burdens on the budget.Given the low off take in the public distribution system, accumulation of food stocks is resulting in a large burden of food subsidy. The low off take in PDS is thanks to the very fact that market prices are lower and supplies are plentiful. The Government has also not been ready to utilize any large volume of surplus stocks in food for work programmers in drought areas.Truly speaking, if agriculture is to be a viable long term economic base for the farming community, it is important to recognize that the farmers' interests are better served by a more efficient system of production, instead of high prices planners should note of now.

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Sustainable Development of Agro Tourism and Functional Analysis of Tourist in Junnar Tehsil, Dist Pune

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Abstract

Tourism is a main economic activity of man, hence geography and geographers have contributed much more in tourism research and gives idea about tourist generating and tourist receiving areas by linking them. A human being always tries to fulfill his requirements or desires with activities for specific purpose; which reflect in the functional characteristics. According to Eichenbaum J. and Gale S. (1971) the functional analysis represents, "The description of temporal cross sectional properties of phenomena". Tourism is new but rapidly growing industry. It has very bright future. Because with increase in population, complex day to day life; increase in standard of leaving relief from tense etc. large number of people were attracting towards this industry. The Junnar Tehsil in Pune district has many tourist destinations, but yet this Tehsil is not highlighted to large scale Agro-tourism practices. It is mainly because of lack of facilities and low development of area. The present research paper focuses on find out the potential area for agro-tourism in Junnar Tehsil. However the study of function and behavior aspects of the tourist has seen important for the tourism development. In this paper an attempt is made to analyse the tourists according to their attitude, visiting period, religion, occupation, age structure, mode of transportation, purpose of the visit, economic status, marital status, literacy rate, halting period, lodging-boarding facilities, goods and articles and from where the tourists have come.

Key: Sustainable Development,Agro-tourism, visiting period, mode of transport.

Introduction

The tourism industry has recorded phenomenal growth in India. Because India possesses a whole range of attractions like landscapes, scenic beauty, mountains and deep valleys, wildlife's, beaches, religious places etc. within the limits from east to west and from north to south. Tourism development in an area or region primarily depends on the sites of attraction on one side and facilities and services provided to tourists at destination on the other side i.e. it is the place or sites of attractions both natural and manmade. It generates demand in the tourist industry. Hence the tourist potential of an area or site and its importance from the view of tourism development is determined by various factors. They include natural conditions, amenities, accessibilities, incentives besides other factors like political support, capital and availability of labour etc. Here in this paper an attempt has been made to analyze views of tourists in Junnar tehsil on the basis of basic indicators of tourism.

Study Area

Pune District having 14 Tehsils. Amongst them Junnar Tehsil is located in the northern part of Pune District. The latitudinal extent of the Tehsil is 19^0.00' to 19^0.24' north and longitudinal extent is 73^0.40' to 74^0.18' east. (Fig. 1) According to census 2011 the geographical area of the Junnar Tehsil is 1579.84 sq.km. It is rural in character, as 183 Villages and 1 urban area are there.The western part of Tehsil has rugged topography of western ghat. The highest point (1422 m.) is located in north-western corner at Harishchandragarh and lowest height (600 m.) at south-east corner of Tehsil. Therefore the general slope of Tehsil is from north-west or west to south-east. The Physiography influences the climatic condition and it reflected in rainfall distribution. Junnar Tehsil occurs in the zone of steep isohyetal gradient having rainfall in between 50 to 250 cm. The atmosphere of the Tehsil is very pleasant and it is favorable for tourism.

Location Map

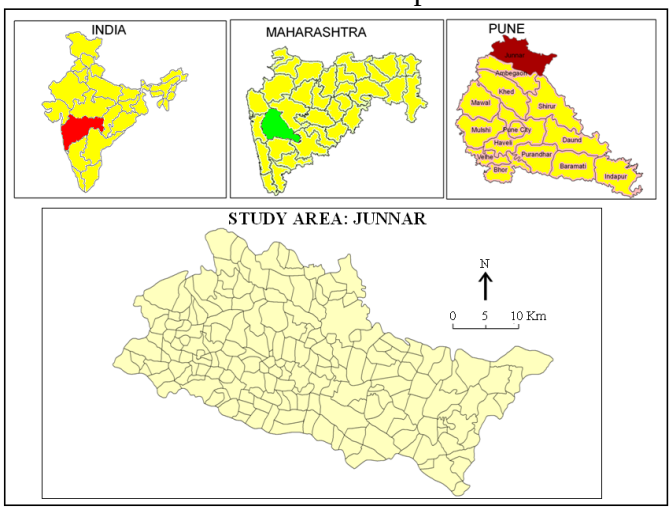

Fig. 1

Objectives

The present work attempts to study the Tourist Information System for tourism development in the Pune district. The broad objectives of the proposed study are:

1. To study the environmental profile of the study area.
2. To evaluate the present status of the tourism industry in the study area.

Methodology And Database

In order to understand functional analysis Junnar tahsil in Pune district the methodology adopted for the present study is divided into three phases namely pre-field work phase, field work phase and post field work phase. In the first phase i.e. pre-field work phase literature review i.e. previous work carried out by other researchers are obtained from various journals, internet, visit to the MTDC resort to know about annual tourist flow, collection of survey of India toposheet (SOI) having scale 1:250000 (47/E,47/F,47/I,47/K,47/M,47/N,47/O), Atlas, Gazetteers, District Census Handbook, Tourist maps, etc. use for collection of information, District Resource map of Pune district published by Geological Society of India, Government published map of Pune district P.W.D. map, and other were completed with help of S.O.I. toposheets (Fig. 2). In the second phase i.e. fieldwork phase extensive field surveys were undertaken, to existed tourist places and newly found tourist places. The questionnaire filled in this phase. During this field surveys tourist facilities regarding destination photographs, GPS reading altitude and the related information is noted which were also useful to site suitability study. In the third phase i.e. Laboratory worked is carried out. Goernment published map then digitization to generate thematic layer i.e. point layer- tourist places, tahasil headquarter, line layer- roads, railways, rivers and polygon layer- dams, reservoirs etc. and map were georeference same time. Integrating all above information and maps with help of GIS software. Finally these thematic layers are analyzed to demarcate tourism potential zones.

FUNCTIONAL ANALYSIS OF THE TOURISTS AT Junnar Tahasil

The tourists are interviewed on different occasions at Junnar to know their opinions about the tourist place and facilities, which are available at tourist center. The questionnaire was filled by the tourists at the time of Diwali, summer, winter and rainy season and also at the time of off-season. Total 100 tourists were contacted. Hence this analysis is based on the views of 100 tourists. The collected data from the survey has represented below.

Table1: Distribution of Tourists by Purpose of Visit- Junnar

Index	Aim of the visit	No. of Tourists	%
1	Religious	12	13
2	Educational	5	5
3	Entertainment	71	74
4	Employment	8	8
Total		**96**	**100**

(Source- Data compiled by Researcher)

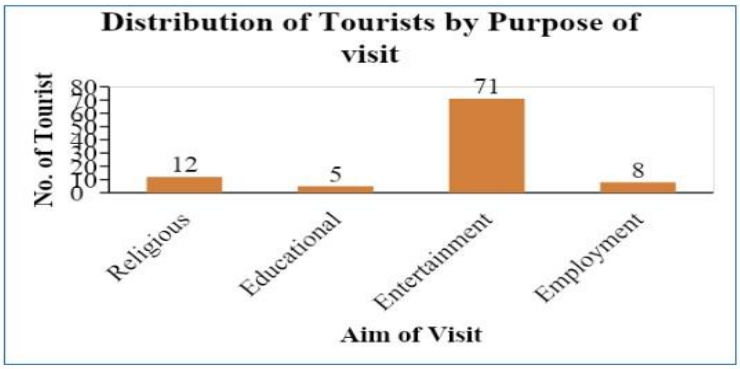

Fig .2

Table 1 and fig 2, is concerned to the classification of tourists according to their purpose of visit. 13% tourists have come for religious purpose. 74% tourists have come for entertainment purpose; while, 5% tourists, have visited the place for educational purpose. Remaining tourists i.e. 8% mentioned that they have visited for employment and other purposes. It proves that the tourists mainly visit the place for entertainment purpose.

Table 2: Occupation-wise Classification of the tourists- Junnar

Index	Occupation	No. of Tourists	%
1	Employees	16	17
2	Agriculture	39	41
3	Business	7	7
4	Education	29	30
5	Professionals	5	5
Total		**96**	**100**

(Source- Data compiled by Researcher)

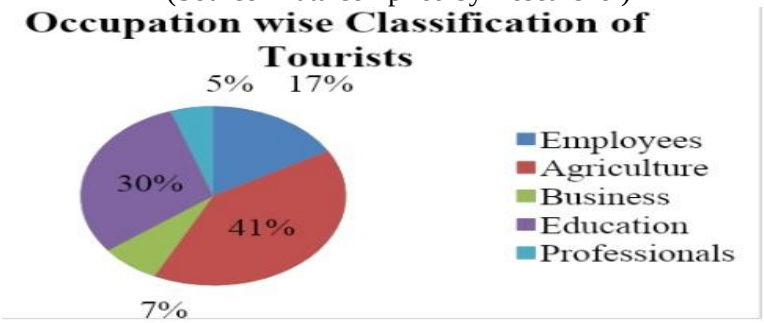

Fig 3

occupation wise classification of the tourists is given in table 2 and fig. 3, According to the data 17% tourists are employees, 30% tourists are from student category and 41% were farmers. Whereas 7% tourists are businessmen as well as 5% tourists are professional.

Table 3: Religion-wise classification of Tourist- Junnar

Index	Religion	No.of Tourists	%
1	Hindu	66	69
2	Muslim	14	15
3	Jain	9	9
4	Buddha	7	7
Total		**96**	**100**

(Source- Data compiled by Researcher)

According to table 3, it is revealed that, Junnar is various type of religious tourist place. Therefore tourists were Hindus 69%, Muslim 15% Buddha 7% and Jain 9%, by religion.

Table 4: Age and Sex wise classification of Tourists- Junnar

Index	Age in Years	No. of Tourists			Total %
		M	F	Total	
1	Under 15	25	13	38	39
2	15 to 30	15	9	24	25
3	30 to 45	11	5	16	17
4	45 to 60	8	6	14	15
5	Above 60	1	3	4	4
Total		**60**	**36**	**96**	**100%**

(Source- Data compiled by Researcher)

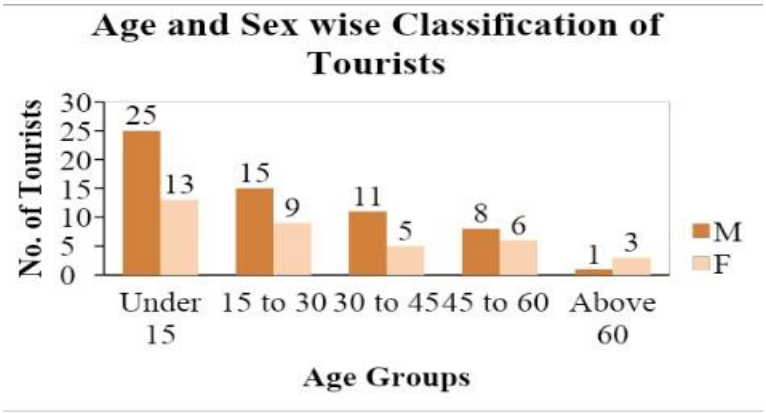

Fig 4

The table 4 and fig. 4, shows the age and sex wise classification of the tourists. As per survey it is observed that 39% tourists belong to less than 15 years age group; which is major age group of the visitors at Junnar. Second highest visitors are from the age group of 15 to 30 years and their proportion is 25%. Married tourists come along with their families at Junnar for entertainment activities on different occasions, therefore the tourists of this age group were observed in more numbers at Junnar.

Table 5: Marital Classification of the Tourists- Junnar

Index	Marital Status	M	F	Total	%
1	Unmarried	30	21	51	53
2	Married	24	13	37	39
3	Widow/Deserted	6	2	8	8
Total		**60**	**36**	**96**	**100%**

(Source- Data compiled by Researcher)

In table 5 reveals the data of marital status of tourists. As per survey it is observed that out of total 39% tourists are married, 53% tourists are unmarried and 8% tourists are from widow class. It means that the tourists prefer to visit this

Table 6: Literacy wise classification of Tourists- Junnar

Index	Education	Male	Female	Total	%
1	Illiterate	6	4	10	11
2	Primary/Secondary	37	27	64	66
3	Graduate and more	17	5	22	23
Total		**60**	**36**	**96**	**100%**

(Source- Data compiled by Researcher)

According to table 6 and fig 5, literacy proportionate of the tourists is shown. Maximum tourists were educated. 23% tourists were highly qualified i.e. graduate and postgraduate. Whereas 66% tourists have completed their primary and secondary education and only 11% tourists are illiterate in total tourists.

s are illiterate in total tourists.

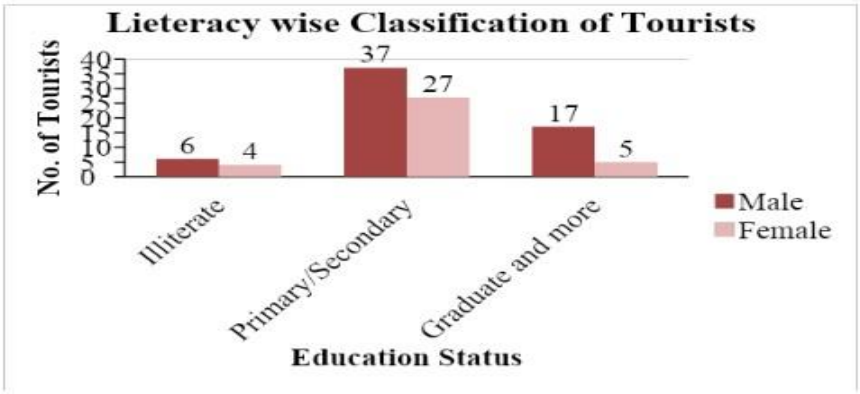

Fig 5

Table 7: Income wise classification of the Tourists (Yearly Income) - Junnar

Index	Class	IncomeGroup (Rs.)	No	%
1	Low income class	Low than – 50,000	37	39
2	Middle class	50.000-10,0000	29	30
3	Higher middle class	10,0000-1,50,000	21	22
4	Higher income class	More than 1,50,000	9	9
Total			**96**	**100%**

(Source- Data compiled by Researcher)

Income wise classification of the tourists has calculated and shown in the table 7 and fig 6. Maximum tourists are from low income class and their proportionate is 39%. Second largest class of the tourists is middle income class group i.e. 30%, where 22% tourists, from higher middle class families and 9% tourists, are from higher income class group.

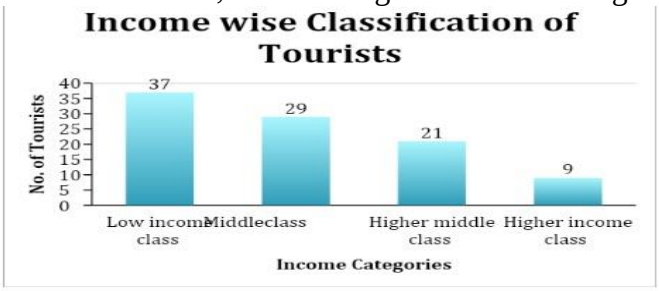

Fig 6

Fig 6

Table 8: How many times Tourists visited the place- Junnar

Index	Years	Nos.	%
1	First time	61	64
2	Second time	9	9
3	Third time	12	13
4	Fourth time	11	11
5	Five times and more	3	3
Total		**96**	**100%**

(Source- Data compiled by Researcher)

In table 8, classification of the tourists has made on the basis of their visiting frequency to the place. As per the calculation it was observed that 64% tourists have visited first time to the place, where as 9% tourists are given second time visit to the place. 13% tourists have given their third visit to the place, where as 11% and 3% tourists given their fourth and fifth visit respectively.

Table 9: Classification of the Tourists on the basis of mode of Transportation- Junnar

Index	Mode of Transport	No.	%

1	M.S.R.T.C. Service	46	48
3	Private Vehicle	39	41
4	Walking/Cycle	11	11
Total		**96**	**100%**

(Source- Data compiled by Researcher)

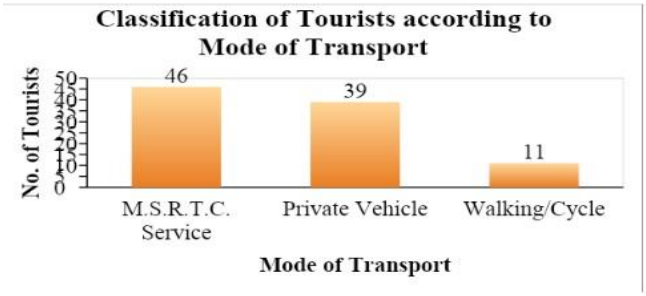

Fig 7

Table 9 and fig 7 reveals the data on mode of transport used by the tourists to visit the place. According to survey it is observed that majority tourists i.e. 48% tourists have used MSRTC service as mode of transport to reach the destination. It means MSRTC has more opportunity to extend their service at this destination. 41% tourists have used private vehicles to visit the destination, which is quite easy by road. 11% tourists who are from near by areas have been prefer their cycles or by walking to visit the place.

Table 10: Classification of Tourists According to Halting Duration- Junnar

Index	Halting Duration	No.	%
1	Day Tripper	72	75
2	One Day	15	16
3	Two Day	9	9
Total		**96**	**100%**

According to table 10 classifications of the tourists is given as per their halting period at the tourist place. It is revealed that 75% tourists are day-trippers. 16% tourists are halted for one day, where as 9% tourists are halted for two days.

Table 11: Classification of Tourists According to Halting Type- Junnar

Index	Type of Lodging	No.	%
1	Day Trippers	91	95
2	Friends and Relatives	5	5
Total		**96**	**100**

(Source- Data compiled by Researcher)

Table 11 is concerned to type of halting that tourists have prefer to stay at tourist destination. 95% tourists are day trippers; where as 5% tourists have preferred to stay with their relatives or friends house. It reveals that halting facilities must be improved at Junnar.

Conclusion

It is seen that socio- economic resources act as a positive elements for the growth of tourism in the Junnar. Tourism is considered as one of the world's largest industry which includes many economic activities. It is also considered as foreign exchange earning without any smoke or pollution and without loss of any internal resources. Thus without exchanging commodities, there is exchange of money, ideas, thoughts and services among people which leads to touris Tourist is the backbone of tourism industry. However, the study of functional and behavioral aspects of the tourist has been important for the tourism development and planning of tourist region. Therefore, for the assessment of the functional characteristics of tourists in the study region, a survey was conducted during the year 2017 and 2018. For primary data collection purpose interview was considered to be best alternative. These respondents have been selected through random sampling survey but the reactions of the tourist were obtained from every tourist sites of the district and are covered for study. The tourists are

satisfied with existing facilities available at Junnar i.e. medical facility, food and water, shopping facility, accommodation, transportation, natural attraction, parking facility, communication and recreation. Most of the parameters can be improved immediately without disturbing the eco-system, and the tourist potential of these Junnar can be increased.

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Social Study Of Katkari, Community In Mandangad Tahshil

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Introduction:

Katkari is a wild tribal community. These tribes have a vast historical and cultural background since 5000 6000 years of pre independence. Adiwasi means the primary and Fundamental habitants colonisal. They are found in the districts of Maharashtra viz-in Raigad, Thane, Ratnagiri, Pune, and Nasik. There are five sub-castes in this community viz Athawar, Hod, Sindhi, Son or Maratha and Varap. The above mentioned tribal community is living along with valleys and mountains for their shelter and food. They are also living in the forest area. The habitant of these people / community is always aloof from the developed society .Therefore, they are not developing their lifestyle.Our constitution has given equal benefits & authorities for all the citizens, but till today many tribes are aloof from the certain benefits & authorities, that are essential for each citizen for their daily needs in the society. Katkari community is known by many or different names like Kotodi, Kathodi, Katwadi, Kothadi. Communities are included in Scheduled Tribe and this community is economically and socially backward, therefore, it is necessary to study the Katkari Community, those who are aloof from developed community.Mandangad is a Tahsil place in Ratnagiri district. It is surrounded by number of small & big hills & mountains. There are many Habitants of this community are found in every small & big villages of Mandangad Tahsil. This community is educationally, socially, culturally, politically & economically backward.This community have to face many difficulties and problems in their daily life. Therefore, I would like to study the social condition and status of Katkari community in Mandangad tahshil.

Objectives of Study:

The basic sorrow or grief of Katkari community is in their lifestyle. But society and our government have done sufficient attempts and produced number of schemes for changing the lifestyle of this community. I would like to go through following objectives for the study of this tribal community. These objectives are as follow;

The base of Study is around the following points/parameters:

1. The lifestyle.
2. The social condition and status.

The History of Tribes:

Katkari is an aborigine tribe so, it is very essential to study the history of Adiwasi community. Groups of Adiwasi community scattered in every direction and angle of Indian society. In India, They are known by different names. e.g. Living in forests so called them "King of Forests" Backward compared to developed society so called, "Primitive" or "People of Mountains".The persons who are studying about this community have also provided many names. For example, Mo ten Lassi, Risle, Elvin, Shooburn, Tallent, Thakkar etc. have provided them the name like "Aboriginal or Aborigines' and 'Backward Hindus" But Dr. Hatan has called them 'Primitive Tribes' As per our constitution, they are known by the name of "scheduled Tribes" Dr. Das has explained/described them "Submerged Humanity" In 1950, before the approval of our constitution constitutional committee has thought about ancient tradition, remarkable culture, geographical classification and shyful nature considering these four criteria, this community included in "Scheduled tribes", and regarding these criteria, proper serves have been taken place in every states of our Nation, and declared by our president in 1950. Who are aborigine/ primitive? for finding the answer of this question, we have to consider many definitions done by various social anthropologists. Some of the definitions are considered for detail understanding of aborigine tribes, especially Katkari community too.

Social Review:

It is very essential to study the social and economical condition of Katkari community for requiring some information about their various aspects of life.

Life Style:

Katkari Tribe is very backward regarding deferent factors in Maharashtra. Their habitants are found on the bank of the rivers, along with the hilly stations. Their habitants are distributed in various groups. In Thane district, they are situated in the coastal part of the sea as wall as interior part of the region but, in Raigad district, they are situated nearby the coastal part of the sea. In Maharashtra, Katkari community is found in various districts like Thane, Raigad, Gadchiroli, Ratnagiri, Sindhudurg, Satara etc. They are known by various names remarkably Katodi, Katulya etc. They are also well known as a king of forest. There is also a remarkable feature of this community is that they require only they have needed for their fundamental requirement of food from ancient period, they have done stolen but only associate to the grain that is essential for their need of stomach i.e. food. They have never done stolen of absolute agriculture or destroyed total grain within the field. Now a day, they have only one purpose before their eyes, that is nothing but to fulfill their need to food.

Language:

'Katkari' is a mother-tongue of the Katkari community but it has no script. They are always speaking Marathi in their routine life. This communicative has a special style of pronunciation, but it is clearly Marathi tone and intonation of speaking is different. Among the member of the family or a special group of this community, they use Katkari" Their mother tongue is also 'Katkari' There is the mixture of Marathi and Hindi, e.g. Kakadi, Tavaya, Ghay-lay Man-Bagada etc. are taken from other languages in their mother-tongue i.e."Katkari".

Food/ Diet:

Mostly fishes, dry fishes of the sea, rice, breat of Nachani, are found in the diet of this community. The meat of the rat and rabbit also found in their daily diet as wall as baked birds on the fire also like them. Rice is mostly/ always included in their diet. Vegetarian rarely found in their diet. In the evening, there is chutney of dry fishes, green chili, onions etc. are remarkable found or meat and fishes are included. Fishing and hunting are the two activities of this community within whole a day. After hunting and fishing, meat of the birds includes in their diet.Many vegetables that are available in the opening period of the rainy season, are also included in their diet, some of the vegetable that are naturally available, are preferred by them. i.e. Tori, Shevali. Bharangi, Kevala etc. This community is for away from nutritious food and certain narrations that are useful for strength and healthy life.

Educational Condition:

Problem regarding the education is an important in Adiwasi community. Education is very essential for developing the backward society. For certain development of Adiwasi community, educational condition should be developed among themselves. New and broad vision to be required by education. In similar factors, other proper development of the society takes place. Firstly, an interest about education should be created among them but, facilities regarding education should be provided as it is very essential today.Radio of Literacy is increasing in various Adiwasi tribes like Gond, Koli, Mahadev Koli, but on the contrary, the ration of literacy in Bhilla and varali tribes is very low because there is lack of contact to the developed society. Parents are not ready to send their children to the schools. Special school for girls are not available. There is miss-belief about girls education. They have considered that education makes girls window. Universality regarding education has been taken place but till today. Adiwasi community is deprived of education. Due to the lack of education, there are many customs, traditions, fatalism, ignorance among them.

Conclusion:

1. They are not getting considerable benefits of Government's schems. Due to that this community remain backward.
2. Land under low value crops is more (88.37 %) and land under high value crops is less (11.66%)
3. There are 23.34% farmers having an annual income is Rs. 1000-1500 and 3.33% farmers having an annual income is Rs. 5000-10000.The annual income is very less therefore, it is difficult to develop or progress the agriculture of this community in tahsil.
4. There is no irrigation facilities in mandangad Tahsil for Katkari community therefore, agricultural development is not occur in this tahsil.

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Provisions And Facts Of Gender Equality In India

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Introduction

The Constitution of India guaranteed equality to women, ensures equality before the Law and prohibits discrimination against any citizen on the basis of religion, race, caste, sex or place of birth. With the due consideration of Constitutional, statutory provisions of equality and current issues on equality the present research topic **Provisions and Facts of Gender Equality in India** is relevant and important for further research.The gender equality is not only a fundamental human right but a necessary foundation for peaceful, prosperous and sustainable world. Laws are being reformed to advance gender quality. Girls are been encouraged to school, opposed to early marriages, women are encouraged to participate in politics and positions of leadership.

Statement of the Problem

India is a country with unique population in the world. There are many cultures, customs, religions, traditions live in harmony. The unity in their diversity is appealing. Gender inequality or discrimination have not improved despite number of measures taken by Government, social reformers, activist for gender equality. Generally, all people have respect everyone, but in the name of religion, race, caste, sex, names, colour, titles or place of birth etc. violation of constitutional as well as statutory rights are continued. The present paper explores Provisions and Facts of Gender Equality in India.

Hypothesis / objectives of the paper

1. To make out legal provisions for gender equality
2. To make out attitude towards gender equality still appear to be traditional today

Short history and background of gender equality

Many challenges for gender equality remain in our society. One in five women and girl between the ages of 15 to 49 years experiencing physical or sexual violence reported. Worldwide nearly 1 in 4 girls between the age of 15 to 19 years are neither employed nor in education. Women are not having the equal access for education like men. In school girls receive less support than boys. Gender discrimination affects many aspects of the lives of women like career development, progress and even mental disorder.The principle of gender equality is introduced in the Indian Constitution it's preamble, Fundamental rights, fundamental duties and directive principles of state policies. The Constitution of India not only guaranteed equality but also empowers the state to adopt measures of positive discrimination in favour of women.In India women had deprived by social obligations historically. They have denied the education, religious faith and belief, access for worship, right of inheritance etc. Dr. B. R. Ambedkar said, "I measure the progress of a community by the degree of progress which women have achieved"[1]. With in the framework of democratic policy, our laws, development policies, plans and programmes have aimed at women's advancement in different spheres. India has also ratified various international conventions and human rights instruments committing to secure equal rights of women. One of the ratification of the convention on elimination of all forms of discrimination against women in the year of 1993. The constitution of India adopted positive discrimination in favour of women for neutralizing the cumulative socio economic, education and political disadvantages faced by them. The scheme of the positive discrimination for upliftment to the weaker section of the society and to achieve equality [2]. Discrimination against women can be measured with the range of indicators such as early marriage, gender based violence, women's property rights.

Gender inequality

Gender inequality or gender discrimination known as unfair rights between male and female based on different gender roles which leads to unequal treatment in life. It is an issue that has been debated for many decades. It is a social problem which causes unfair treatment in society between different genders. The gender inequality directly affects the scale of population. Due to gender discrimination ratio of boys and girls are unequal.The gender inequality directly affect on education. Education is a fundamental right which should not be restricted to certain gender. Increase in female education improves human development outcomes such as child survival, health and schooling. Economy by the is the field that is consequently affected by the discrimination of gender. Gender discrimination also evidentiary at workplaces. The most enforcing cause of gender inequality would be stereotype mentality of the society. For upliftment of women status in the society the great social reformer Mahatma Jyotirao Phule has started first girl school in Pune, Maharashtra. The Phule has identified the root cause of gender discrimination. Savitribai Phule was wife of Jyotirao Phule and first women teacher. Both have spent the life for increasing awareness of education, improving facilities for education, given representation for improving education system before authorities, given representation for eradication of unhealthy social customs. The Mahatma Phule is great social reformer for upliftment of the women and education ultimately gender equality. All the gender inequality is obviously an urgent issue in the world. Despite the fact that its volume much decreases it till exists and make a lot of people suffer its consequences everyday and there are many reasons leading to gender discrimination which can not be solved easily. However, with education and progressive thought of people, there are also reasons to trust in the future of gender in equality being stopped.

Legal provisions for Gender Equality

The constitution of India not only grants equality to women but also empowers the state to adopt measures of positive discrimination in favour of women for neutralizing the cumulative socio-economic, education and political disadvantages faced by them. Fundamental rights among others ensure equality before the law and equal protection of law, prohibits discrimination against any citizen on grounds of religion, race, caste, sex, or place of birth and guaranteed equality of opportunity to all citizens in matters relating to employment. Article 14, 15, 16, 39(a), and 42 of the constitution are specific importance in this regard. The article 243 provides reservation for political representation.[3] To uphold the Constitutional mandate the state has enacted various legislative measures intended to ensure equal rights to counter social discrimination and various forms of violence and atrocities and to provide support services especially to working women. Although women may be victim of nay of the crimes such as Murder, Robbery, Cheating etc. the crimes which are directed specifically against women are characterised as crime against women. Broadley categorised in two category :

A) Under Indian Penal Code

Rape Section 376, Kidnapping and abduction under sections 363 to 373, Homicide for dowery, Dowry death or attempts under section 302, 304-B. torture under section 498-A, Molestation under section 354, [4]

B) Under special laws

Although all laws are not gender specific the provisions of law affecting women significantly have been reviewed periodically and amendments carried out to keep pace with the emerging requirements. Some Acts which have special provisions to safeguard women and their interests are as follows:

1. Employees state insurance Act, 1948
2. Plantation Labour Act, 1951
3. The Family Courts Act, 1954
4. The Special Marriage Act, 1954
5. The Hindu Succession Act, 19565 [5]
6. The Hindu Marriage Act, 195 [6]
7. Prevention of Immoral Traffic Act, 1956
8. The Maternity Benefits Act, 1961
9. The Dowry Prohibition Act, 1961
10. The Medical Termination of Pregnancy Act, 1976

11. The Equal Remuneration Act, 1976
12. The Prohibition of Child Marriage Act, 2006
13. The Factories Act, 1986
14. The Protection of Women from Domestic Violence Act, 2005 [7]

Some special initiatives for women have been taken by the Government. That are National Commission for Women, Reservation for Women in local self-Government, the National Plan of Action for the Girl Child and National policy for the Empowerment of Women.

Current position of Gender Equality in India

However, the law makers have enacted various laws for the protection of discrimination on the ground of sex or gender, still it not implemented effectively. The reason behind that the rout cause of discrimination is caste in India. Number of cases increasing against women.According to world economic forum report published in 2011, India has ranked 113[8] on the gender gap index. The birth rate of girl child has been decreasing day by day and abortion cases are increasing. India performs well on political empowerment, but is scored to be as bad as China on sex selective abortion. India also scores poorly on overall female to male literacy and health rankings.Female feticide is the act of abortion a baby because of female gender. Sex selective abortion is a big problem in India. The number of abortions by medical professionals have increased so much that today it has become a industry even though it is punishable by Law. The right to education Law enacted the education is free for every child between the age of 6 to 14 years old however it is not compulsory. This means the children have the right to education but not the obligation to go. The lot of girls do not go to school because their parents would rather send their sons who will be the future for them. The girls have to help at home doing house work.In India not enough girls or women for getting marriage, the result that a new practice takes place that is kidnapping of women or girl. Kidnapped women does not have any right. The women are also discriminated in terms of credit lending and property ownership. This situation can be again drawn back to the patriarchal system prevalent in the Indian economy.Dr. B. R. Ambedkar is successful social reformer and lot of struggled for the introducing equality in the constitution. Preamble of the Constitution is comes with in the ambit of basic structure and can not be amend. Dr. B. R. Ambedkar introduced Hindu Code Bill in the house and ensure the right to property for the women in ancestral property. Also ensure that the women can be remarry after death of her husband. For empowerment of women the Hind Code Bill is one of the mile stone. The protection of Women from Domestic violence Act, 2005 provides from mental as well as physical torture from family of in-laws. It is applicable to all women regardless her religion or caste, therefore it is kind of uniform law.

Conclusion

The people of India divided in to different religion and caste. Each religion have separate customs. The Hindu Law applicable only Hindu, Sikh, Jain and Buddhist. That means the Muslim personal law is in enforce till today. The Muslim women have no equal rights like Hindu women.The caste is the base of discrimination in India. The people are not ready to come out from customary rules therefore the cases of abortion and secondary preference to girls in education has giving. The law makers have enacted the appropriate law for empowerment of women but unfortunately implementation failed. Therefore, the following remedied must be adopted for gender equality:

1. To develop awareness the value and power women as resource.
2. To ensure each girl child must be get proper nutrition food for better health.
3. To provide more special treatment by the state to women.
4. To eradicate unwanted and irrelevant customary rules.
5. To establish or increase number of special Courts for speedy trial for women victim.
6. A woman should adopt an egalitarian approach by breaking down stereotypes and traditions that underestimate her as a woman.
7. Establishing gender equality requires a change in the traditional patriarchal male approach.
8. Gender equality needs to start with the family. The values of women's dignity and women's equality should be inculcated in children from within the family.
9. Gender-based behavior should be manipulative rather than transactional.

In all cases, a woman is in dire need of emotional, mental and moral support as well as counseling, rehabilitation and legal protection. In addition, the policy on women empowerment, effective implementation of the provisions of the Constitution is also important in this regard.

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7) Indian Penal Code

Smt. Batliwala, Empowerment of women in south Asia (FFHCFAO) study material TATA Research institute of women studies

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Ecological energy used in the dairy Industry for milk processing

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Abstract

Milk Manufacturing Is A Completely Vital Detail Of The Entire Dairy Chain. Milk Call For Is Encouraged Through The Variety Of Humans And The Quantity Of Milk That All And Sundry Is Inclined To Drink And May Afford. India Is International Biggest Milk Manufacturers And One Of The Chief In End Result, Veggies And Grains Manufacturing. Milk Leaves The Udder At Body Temperature Containing Only A Few Microorganisms. The Number Increases Rapidly At This Temperature, If Growth Is Not Checked Immediately By Chilling The Milk. Chilling Is Necessary After Receiving Milk At Collection/Chilling Centre.

Keywords: India, Dairy Processing, Milk Production Diet, Transformation, Food Supply, Dairy Farm Structure

Introduction

Whole World, Extra Than Six Billion Humans Eat Milk And Milk Products, And The Wide Variety Is Growing. At The Equal Time, Over 750 Million Humans Stay In Dairy Farming Households, Mainly In Rising Economies. Most Dairy-Farmers Function At A Small-Scale Level; The Worldwide Suggest Milk Yield Is Eleven Litres In Step With Farm In Step With Day, Produced With The Aid Of Using Mean Wide Variety Of Cows. Hence, The Improvement Of The Small-Scale Dairy Zone Might Be Effective Device For Decreasing Poverty And Making A Living Withinside The Growing World. The Milk Price Chain Specifically Is Going Thru 4 Steps: Milking, Transportation To Take Advantage Of Series Centres, Processing, And Retail. During The Milking Process, It's Far Essential To Fulfil The Ok Hygienic Requirements That Assist To Keep Away From A Bacterial Contamination Of The Milk. In Many Countries, Milk Coming Into The Formal Zone Is First Chilled At Village Series Centres. However, A Few Difficult Dairies And Cooperatives Manipulate The Pleasant Of The Gathered Milk And Reject Milk This Is Spoilt. Enhancing Milk Managing Practices And Elevating Cognizance Of Milk-Borne Sicknesses Can Assist Lessen Fitness Risks. Cleaning The Device And Ordinary Animal Husbandry Are Essential Measures To Lessen Losses And Offer A Higher Pleasant Of Produce. Access To Veterinary Support, The Perfect Fodder, And Making Sure Water Availability For The Farm Animals Is Critical To Enhance Milk Yields.Furthermore, Introducing Cooling Centers Proper After Milking Can Lessen Bacterial Boom Considerably. In Fact, Special Technology Were Advanced In An Effort To Offer An Uninterrupted Cooling Chain Till Attaining The Milk Series Centres, Decreasing The Quantity Of Milk This Is Rejected, Growing Farmers' Earning And Enhancing Meals Security. Further, Whilst Cooling Gadgets Are Run On Renewable Power, They May Be Used Off-Grid And Are Climate-Friendly, Which Removes Extra Prices From Power Supply. As Preliminary In Advance Capital Prices Are Frequently The Principle Limitations For Adopting Those Progressive Approaches, Special Financing Alternatives Were Advanced, Permitting Smooth Get Entry To To Smallholder Farmers. Increasing The Power Performance Withinside The Dairy Price Chain Implies The Use Of Additionally Its With The Aid Of Using-Products. Cattle Manure May Be Used For Biogas Production That Can Generate Warmth For Cooking, Heating, Band Power – Which In Flip Can Electricity Cooling Structures And Consequently Save You Spoilage Of Milk.

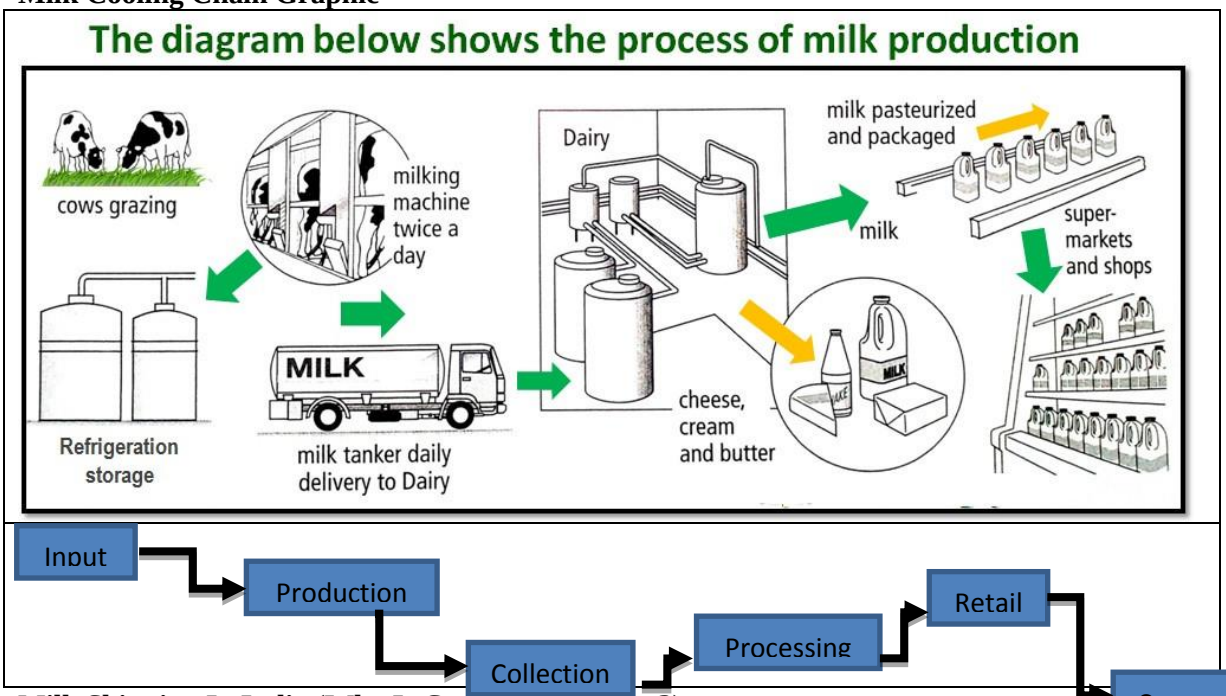
Clean Energy Solutions For Milk Cooling

In Low-Earnings Countries, Maximum Of The Milk Is Produced With The Aid Of Using Smallholder Farmers, As It's Far One Of The Few Commodities That May Be Produced Even With The Aid Of Using The Landless. The Surplus Milk May Be Offered At The Nearby Markets. Due To Its Composition, Milk At Ambient Temperature Gives A Perfect Medium For Bacterial Boom, Which

May Be A Vector For Infectious Sicknesses, Being Unsafe For Human Consumption. Cooling Milk Slows Down Bacterial Boom, Decreasing Spoilage, Growing Farmers' Earnings And Imparting A Positive Protection For The Milk Consumer.

In India, Farmers Have A Tendency Now No Longer To Personal Their Personal Cooling Centers. In India, Milk Is Gathered And Reaches Dairy Cooperatives Inside 3.Five Hours After Milking. However, Preserving An In Depth Community Of Series Centers Which Often Depend On Diesel Turbines To Lower Back Up The Much Less Dependable Power Grid Imposes Huge Monetary Burdens.Milk Transportation To The Gathering Centres With Cooling Centers Commonly Takes Longer Than 3.Five Hours And Nighttime Milk Desires To Be Fed On On-Farm As Series Centres Best Open Withinside The Morning. Due To The Excessive Prices For Lower Back-Up Power For Cooling Centers.The A Hit Software Of Easy Power Cooling Era Withinside The Milk Price Chain Has The Capacity To Enhance The Pleasant And Growth The Amount Of Milk Offered Into The Formal Market, Enhancing Meals Protection For Consumers, And Growing Farmers' Earning, At The Same Time As Developing Process Possibilities Inside Organizations That Offer Easy Power Solutions.

Milk Cooling Chain Graphic



Milk Shipping In India (Why Is Cooling Important?)

In India, However, Procurement Of Milk Organised Through Cooperatives And Personal Dairies Withinside The Formal Cost Chain Is Extraordinarily Green, With The End Result That Morning In Addition To Night Milk Reaches Chillers In Village Series Centres Inside 3.Five Hours After Milking. Cooling Is An Strength Extensive Manner, However, And Keeping An In Depth Community Of Series Centers Which Often Rely Upon Diesel Mills To Returned Up The Unreliable Strength Grid Imposes A Sizable Monetary Burden At The Cooperatives And Personal Dairies. The A Success Software Of Smooth Strength Cooling Era Withinside The Milk Cost Chain Consequently Has The Capability To Enhance The First-Rate And Growth The Amount Of Milk Offered Into The Formal Market, Growing The Profits Of Smallholder Farmers And Enhancing Meals Protection For Consumers. It Also Can Offer Possibilities For Increase For Companies Supplying Smooth Strength Answers. The Important Obstacles To Upscale Renewable Strength Answers For Cooling In Milk Cost Chains Are The Excessive Prematurely Fee Of Era Blended With A Loss Of Financing Mechanisms For Smooth Strength. A 2d Barrier Is The Lack Of Understanding Of To Be Had Era Amongst Farmers, Dairies And Cooperatives. The Applicable Guidelines And Policies For Meals Protection Aren't Constantly Enforced, And On Casual Markets, First-Rate Trying Out Isn't Always Carried Out. Besides Temperature, Different Elements Can Have An Effect On The First-Rate Of The

Milk, Like Hygienic Practices Or Negative Animal Coping With Have A Tendency To Purpose Infection Quickly After Milking. This Helps The Argument For The Deployment Of Different Recognition Elevating Efforts And Of Similarly Smooth Strength Answer Withinside The Cost Chain, Along With Sun Water Warmers For Gadget Cleaning. However, Small Dairies Are Much Less In All Likelihood To Have Get Entry To To The Information And Capital Required To Put Money Into Current Era For His Or Her Cooling Centers And Processing Plants. Enhancing Get Entry To To Finance Can Also Additionally Permit To Put Money Into Strength Green And Smooth Strength Answers, Which Could Cause Decreased Costs, And Growth Farmers' Incomes.

Reducing Milk Spoilage Thru Solar-Powered Chilling

Perishable Meals Really Well Worth Of 10 Billion US Dollars Is Wasted Yearly In India Due To Unreliable Cold-Chain Deliver Networks. Especially In Farming Regions And Villages, The Dearth Of Dependable Strength Is A Mission For Strolling Refrigeration Structures. With India Being The Most Important Client And Manufacturer Of Milk Withinside The World, Promethean Power Systems Collectively With Hatsun Agro And Orb Energy Have Advanced A Sun Milk Cooling Machine That Makes Use Of An Progressive Thermal Strength Battery Pack. Charging On Intermittent Energy Reassets Along With Sun Energy And/Or Some Hours Of Grid Strength, It Lets In Converting The Nearby Meals Scenario Considerably.

TRANSPORTATION

Solar Milk Cooling With Insulated Milk Cans

Milk Produced On Small-To Medium-Scale Farms Is Normally Transported To Exploit Series Centers. The Spoilage Because Of Bacterial Increase At Some Stage In Transportation Because Of Heat Temperatures Ends In Milk Being Refused Through Vendors. Secondly, Many Farmers Do Now No Longer Promote Their Night Milk To The Gathering Centres, Because It Can't Be Saved Accurately In A Single Day. Instead, They Promote The Milk To Neighbours Or Use It Themselves. This Can Growth The On-Farm Losses And Decrease Profits. The Sun Milk Cooling Machine Advanced Through The University Of Hohenheim (Germany) Makes Use Of Sun Strength For Ice Manufacturing. The Produced Ice Is Used To Chill The Milk Through Setting It Into An Ice-Compartment Of An Insulated Milk Can. This Machine Lets In Decrease Temperatures At Some Stage In Transportation And In A Single Day Storage, Growing The Farms Manufacturing And Profits.

Energy Manufacturing

By-Merchandise From The Milk Cost Chain May Be Applied For Functions Along With Strength Era Or Natural Soil Fertilizers. Biogas Is A Renewable Strength Source, Which May Be Produced At Special Scales And Is Thus, A Smooth Strength Answer For Farm Animals Farms Of All Sizes.

Biogas For Power Generation From Dairy Cattle

Biogas Is Produced Thru Anaerobic Digestion (AD), A Biochemical Manner That Includes The Decomposition Of Natural Rely Through Symbiotic Micro Organism Residing In Anaerobic Environments. Biogas Created From Farm Animals Manure May Be At Once Combusted For Heating, Cooking, Generating Strength And Generating Methane. From One Tonne Of Dairy Farm Animals Manure, The Biogas Produced Can Generate Round One Hundred Twenty Five Kwh Of Strength. Depending At The Farm Size, Special Packages May Be Used. Commercial Packages Require Better Capital Investments And Deliver Extra Green Large-Scale Era. Pro-Negative Packages Are Appropriate For Much Less Than 10 Head Of Farm Animals In Step With Plant And Permit Blending Manure With Different Feedstocks To Growth Strength Manufacturing. The Strength Produced Normally Even Exceeds The Farm's Wishes For Cooling And Milking.As A Derivative Of The Anaerobic Digestion Manner, The Digestate (Along With Indigestible Fabric And Useless Micro-Organisms) May Be Used As A Soil Conditioner And Fertilizer, As Nutrient Content Material Stays The Same, While Getting Rid Of Maximum Pollution And Pathogens. Synthetic Fertilizers, Which Require Excessive-Strength Inputs At Some Stage In Manufacturing, May Be Substituted And Thus, Lessen The Carbon Footprint. Biogas Structures Offer Smooth Strength To Dairy Farmers And Allow Them To Diversify Their Profits (Whilst Biogas Is Offered), Lower Dependency On Imported Strength Reassets, Generate Manure Remedy And Sanitation, And Convey First-Rate Soil

Conditioner. Biogas Is An Opportunity Shape Of Strength Get Entry To That Facilitates Keep Away From Meals Losses In Case Of Unreliable Energy Deliver For Cooling.

Pasteurization Process

Pasteurization Is The System Of Heating A Liquid To Beneath The Boiling Factor To Smash Microorganisms. It Turned Into Advanced With The Aid Of Using Louis Pasteur In 1864 To Enhance The Maintaining Characteristics Of Wine. Commercial Pasteurization Of Milk Started Out Withinside The Late1800s In Europe And Withinside The Early 1900s Withinside The United States. Pasteurization Have Become Obligatory For All Milk Offered Withinside The Town Of Chicago In 1908, And In 1947 Michigan Have Become The Primary Kingdom To Require That Every One Milk On The Market Withinside The Kingdom Be Pasteurized. Pasteurization Is The System Of The Heating Beverages For The Cause Of Destroying Viruses And Dangerous Organism. It Turned Into Advanced In 1864 To Enhance The Maintaining Characteristics Of Milk. Pasteurization Normally Makes Use Of Heating And Cooling Cycle At Temperatures Above The Boiling Factor Of Milk And Above The Freezing Factor. As Society Industrialized Across The Flip Of The 20th Century, Extended Milk Manufacturing And Distribution Caused Outbreaks Of Milk Borne Diseases. These Ailments Have Been Truly Removed With The Industrial Implementation Of Pasteurization, In Aggregate With Stepped Forward Control Practices On Dairy Farms. In 1938, Milk Merchandise Have Been The Supply Of 25% Of All Meals And Waterborne Ailments That Have Been Traced To Sources, However Now They Account For Some Distance Much Less Than 1% Of All Meals And Waterborne Ailments. Pasteurized Milk System Is A Diary System That Consumes Huge Quantity Of Power Such As Strength And Fuel.

Conclusion: Cooling Technology Can Considerably Enhance Milk First-Rate And Upload Cost Alongside The Milk Cost Chain. Cool Milk May Be A Feasible Option. Biogas Home Milk Chillers And Sun Milk Coolers Are Appealing From A Monetary Factor Of View And Feature Socio-Financial And Environmental Internet Co-Benefits. Policies, Financing Mechanisms And Capability Constructing Sports To Facilitate The Adoption Of Renewable Strength Cooling Answers For Milk Include: The Improvement Of A Clean Country Wide Approach For The Milk Sector, Strict Milk First-Rate Requirements And A Fee Top Class For First-Rate Refrigerated Milk, The Status Of Controls And Fines In Opposition To Unlawful Milk Commercialization, Eradication Of Counterfeit RE Merchandise, Monetary Incentives, Extension Services, Technical Assistance, Records Programmes And Training. Natural Gas Provides Approximately 67% Of The Energy Used In The Dairy Processing Industry With The Remainder Sourced From Grid Electricity (13%), Fuel Oil (13%) And Coal (6%).

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Role of ICT Utensils in Enhancement of Quality Education

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Abstract:

As we move in 21st century, Information and Technology cannot be neglected because it has become the integral part of our life**.** Information and Communication Technology (ICT) is modern term in teaching and learning process. It has changed many aspects of the way we live. ICT is a part of our lives for last few decades affecting our society as well as individual life ICT, which is now broadly used in educational world. Teacher, student, administrator and every people related to education are popularly using it. Information and Communication Technology utensils are digital infrastructure such as: Computers, Laptops, and Desktops, data projectors, software programs, printers, scanners and Interactive Teaching Box. Teacher use ICT tools for making teaching-learning process easy and interesting. Nowadays ICT's are transforming schools and classrooms a new look by bringing in new curriculum based on real world problems, projects, providing tools for enhancing learning, providing teachers, students and parents to come together. Quality education depends on the development of information technology in several provision such as enlarging the motivation of learner, enrichment of basic skills and increasing teacher training in technology. The present paper focuses on various ICT utensils and how these tools play significant role in enhancing the quality of education.

Keywords: Information, **Education, Technology, Knowledge, Teacher, Quality.**

Introduction:

Quality education depends on the development of information technology in several provision such as enlarging the motivation of learner, enrichment of basic skills and increasing teacher training in technology. Information communication technology serving as curriculum/subject transformation tool, it used properly to create an environment with learner centred. Information and communication technologies are used by the teachers to instruct the students to know and access the new pedagogy. Information and Communication Technologies (ICTs) is increasingly becoming indispensable part of the education system.

In 1998 UNESCO World Education Report refers about students and teachers must have sufficient access to improve digital technology and the internet in their classrooms, schools, teacher educational institutions. Teachers must have the knowledge and skills to use new digital tools to help all the students to achieve high academic standard. The quality of professional development of teacher and students' education depends on the extent of ICT integration in teacher education programs. According to UNESCO (2002), "ICT is a Scientific, technological and engineering discipline and management technique used in handling matters"

Need and Significance of the study:

The scenario of the classroom is changing. There is a lot of difference between traditional 'Chalk and Talk' method and ICT teaching method. The present generation is very happy to learn through this ICT. There is technical gap between the progress of the society and Instructional activities of the teacher in the classroom. If we see in our society on the one hand technology has revolutionized our society on the other hand the teaching-learning (Lecturing) activities at school level have remained so far away from technology. In our classroom the knowledge is imparted by teacher by lecturing before students, which is 'Teacher Centric' mode which is most of the time boring and not interesting for the students. Only teaching like a One-way traffic is in vain. In this method students are not active. But present 21st Century's education is 'Student Centric' education. Now students learn from multi sources and for this reason use of ICT, Multi-media, and various tools of ICTs. This new innovative method is now has kept its standard in maintaining the quality of education.The following utensils are playing very important role in making education system

effective: Internet, Video conferencing (Skype), Video conferencing, Social Media, YouTube, PPT, Blog, Films and Projector, etc.

Internet:

Today, it has become necessary to use Computer, Internet, Educational websites, Information links etc. So teacher should have appropriate knowledge about authentic information of websites and its applications. Internet provides variety of Language materials. It moves the learners' level of literary in conducting on-line communication. It makes learning process lively, dynamics and interesting. It provides resources for teachers and describes the ways teachers can use to communicate with the peers, particularly through e-mail. It also provides an overall picture of on-line distance education and platform for on-line courses for students and teachers. However, it should be kept in mind that the internet does not mean the end of the black-board, white-board, the course book, the tape-recorder or the OHP; it provides tremendous opportunities, stimuli and resources for not only teachers but also students.

Video conferencing (Skype):

Conventional teaching has emphasized content. For many years course have been written around textbooks. Students are not allowed to out of the course. Students have been taught through lectures and presentations interspersed with tutorials and learning activities designed to consolidate and rehearse the content. Contemporary learning, using ICT tools, is made students interesting and comfortable. Video conferencing is the best way of communicating with others who are at distant place because in it students can see and listen to other person simultaneously. Video conferencing despite a few flaws like dropped calls and all that is like experiencing something like out of the classroom. Skype and other video apps are used for video conferencing. With help of it teachers and students can collaborate with each other anywhere in the world. On Skype teachers can create lessons and he can connect his/her classroom to the world. Skype also promotes the English speaking confidence.

Social Media:

Facebook, WhatsApp, Twitter, MSN, Yahoo, Orquit, IMO, HIKE, Line etc. are the gifts of technology. These are the social networking applications that could help in improving students' command and capacity of language and literature to a greater extent. These applications have got the unlimited power to engage students and teachers in their duties. Students and teachers can share, express, and exchange their information, thoughts, innovative ideas and communicate with others. By creating groups they can discuss various issues, literary genres, recent events with each other which help them to develop their critical thinking. Students can make use of these groups and E-friends in interpretations on worldwide literary works. It is useful in the all-around und literary development of the students.

You Tube:

You tube can be used in teaching and learning process. It can be used to teach four skills of language learning. There are ample videos which can be used for learning specific skills of learning English. These videos are taken from real life that is the reason they are useful in live classes. Teacher can use the videos which are used in different countries for teaching. Teacher has to select the video and he/she can show it to students and trough this activity he can get the desired results from students. Students can be asked to practice from you tube video to learn the correct pronunciation and sentence structure. There are certain links which can be used for learning skills of language. Following are some links which can be used in the classroom.

https://www.youtube.com/watch ?v=jS2skkVytUA
https://www.youtube.com/watch ?v=0IFDuhdB2Hk
https://www.youtube.com/watch ?v=EY0vwK7a2yg
https://www.youtube.com/watch ?v=5pRP7nM9z3Q
https://www.youtube.com/user/JenniferESL

Blog:

It is modern important in teaching as well as learning process. It mostly used for personal expression and communication with others. It is also known as an internet based weblog which essentially a homepage managed by a writer. Students can read others or create their homepage to publish blogs on various topics, themes, trends etc. McIntosh expands the definition of Blog as: "Historically, a Weblog or blog' for short, is recognized by its regularly updated , time and date

stamped posts, running down the computer screen in chronologically reverse order (i.e. the most recent post comes first). Crucially, there is an 'Add comment' feature so that the readers of the post can leave their opinions, questions or thoughts. Finally, there is a writing style element: blogs are written by one individual who gives his or her thoughts in a generally relaxed, 'spoken' style (McIntosh: 2015). Teachers have their own blogs and they should encourage student to visit blogs frequently and they should respond the comments immediately. Students should be encouraged to post their writing homework on the blog instead of only giving it to the teacher. The use of the blog in teaching promotes self-expression, interaction, self-evaluation, and language progress. The blogging mainly improve reading and writing skills among the students of literature. It also develops the critical thinking skill. In short by using the blog in their class teacher can help students to develop the Listening, Speaking, Reading, and Writing skills of the students of language and literature. With the help of these four skills students can improve themselves in this Age of Competition.

PPT:

Over the years PowerPoint has made itself into the most recognizable software in the market. From business and now to Education, when presentation is involved, PowerPoint is the software that is going to help to the teachers as well as learners.

If a teacher is very creative they can more onwards to make a flash game out of PowerPoint. In it there is addition of Visual and Sound effects that can attract students' mind. It is simple technology for the teachers to execute. If a lesson requires plenty Teacher Talking Time (TTT) to explain an idea, it can be presented in a smooth way. The usage of hyperlinks is useful to link with other website related to the topic. Just like the rest of the world PPT is widely used. Students may prefer PowerPoint than the "Chalk and Talk" method. It is, because of unique presentation method than using whiteboard. Susskand (2008) proves that "students are more motivated when approached with PowerPoint. The attitudes of learning is much more positive due to the organize nature of PowerPoint it is further proved in his previous research (Susskind 2005), that," once the PPT are removed from his curriculum, student felt more demotivated." Hence, it is safe to say that PowerPoint is do-able and highly accepted by students around. Most of the students are interested in other features of PowerPoint rather than the data. They like much the sounds, images and the appearance of line-by-line. Finally it is seen PowerPoint does not improve the results in examination still it is found that there is improvement among students in academic achievements; the positive attitude and motivation in the classroom is actually a plus side. If we take extra precaution in our presentation format, it does not produce negative test results for the students.

Films and Projectors:

In teaching-learning process Films and Projectors becomes essential tool. With help of projectors, teacher can show various educational DVD's and to the students. It can help teachers to make their class live. They can show different VDO's of Dramas of various famous dramatists such as George Bernard Shaw, William Shakespeare, Indian dramatists like Girish Karnad, Vijay Tendulkar and so on. With the use of such tool, students can understand the literary genre Drama. By arranging post discussion sessions, teacher could promote the listening, observation, and critical thinking skills among the students.

Advantages of ICT Learning:

1. The role of teacher motivating the young learners to draw the attention towards their subject through multimedia based technology. Educational process requires technological tools to improve their understanding and motivation in the particular subject.
2. New Skills Factor A student can acquire any kind of skill with the use of technology, for example, by simply watching self-education videos on YouTube, you can acquire many new skills. They can also learn new languages using modern technologies without having any teacher around them.
3. The ICT plays one among the major factor to change the cooperative learning among the students community to understand the subject matter with easiest concept and low time conceiving. It makes students who can understand easier in their learning subject at school environment. Teacher who can create the congenial atmosphere to teach the students various subject at school environment.
4. Fast Communication Factor the modem technologies illuminate all geographical boundaries, so students can join various projects all around the world. The modern technology provides

possible opportunities to the learners to study the different subject and the school curriculum and also it provides realistic environment in their real classroom situation. Students who can exchange their ideas with in their co learners through ICT.

5. But, in rural areas these utensils are unavailable so that students from remote and rural areas still face many problems.

Conclusion:

To sum up, the changing scenario is drastically affecting qualitative education. So to complete with the worldwide changes, it is must to use modern technology devices in the teaching of language and literature also which affects the enhancement of quality education. So the present paper is an attempt to throw light on how the use of ICT tools is useful to make the Teaching-Learning process effective, up to date and also enjoyable, and teachers should not rely on traditional teaching methods. And because of these fantastic innovative skills now the present education quality is on the top of all the fields in the world. Teachers have turned to new technology and tools of Information and Communicative Technologies. But the shortcoming is that, in rural and remote areas these ICT devices are not available still teachers are trying their level best to make them available for students. If it happens i. e. with the help of ICT teaching, there will not be much time for students to reach the heights of the World! In the past twenty five years, the use of ICT has fundamentally changed the practices and procedures of nearly all forms of endeavour within the all forms of educational institutions for providing quality education. Especially ICT have a greater place in the field of Education in the forthcoming years. Therefore, it is adoptable for every situation in the classroom environment to creating the motivation among the learners. In considering the above merits the present article represents importance of ICT reserve the major place in improving the educational system such as increasing motivation among the learners, obtaining attention among the learner and creating in depth understanding in their subject. In considering the above importance ICT merged as an important part in the field of education at present and near features.

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Impact of Globalization on Indian Society: An Overview

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Abstract:

Globalization is a significant factor in competitive world that integrate and mobilize cultural values of people at global level. In the age of rapid technical progression, many countries are unified and transformed due to the process of globalization. Globalization has a huge impact on cultural, social, monetary, political, and communal life of countries. Globalization powerfully influences the social partners' attitudes since traditional labour relations have to cope with completely new and very dynamic situations. In political field, globalization helps to eradicate poverty, malnutrition, illiteracy, ill-health and fighting cross border terrorism and global terrorism. The social structure and construction has been changing due to these modern phenomena. Industrialization and Globalization are always focusing on industrial investment and economic growth process. Today is a global world. Globalization is process of nation prosperity and progress as per the current trend. Globalization is a series of social, economic, technological, cultural, and political changes occur in all the stages of society. It mainly focused on the consequences and effects of urbanization, modernization and globalization process with context to an Indian society.

Keywords: Globalization, Indian Society, Impacts.

Introduction:

Globalization is a significant factor in competitive world that integrate and mobilize cultural values of people at global level. In the age of rapid technical progression, many countries are unified and transformed due to the process of globalization. Globalization has a huge impact on cultural, social, monetary, political, and communal life of countries. Globalization powerfully influences the social partners' attitudes since traditional labour relations have to cope with completely new and very dynamic situations. In political field, globalization helps to eradicate poverty, malnutrition, illiteracy, ill-health and fighting cross border terrorism and global terrorism.

Globalization In India:

Globalization is a fact of life, which has come to stay. It is expected to be a major force for prosperity. The essentials of the New Economic Policy which gave imputes to the progress of Indian economy includes Privatization, Globalization, Modernization and Improvingproductivity and growth rate. Globalization in India is generally taken to mean 'integrating' the economy of the country with the world economy.

1. Increasing competition.
2. Technological development.
3. Knowledge/Information transfer.
4. Portfolio investment (fund transfer between developedcountries and emerging markets).
5. Regulation/deregulation, International standards.
6. Market integration.
7. Intellectual capital mobility.
8. Financial crisis-contagion effect-global crisis.

Birth Of Global Society:

The recent history of liberalization in India can be located within the longer history of global capitalism. The Great Depression of the 1930s and the destruction during Second World War were followed by a new phase of capitalism. The Depression marked the end of British economic power.

structure of world economy and the trends towards globalisation crucially affected the third world. International finance, an important mechanism of global integration, came to define the cycles and rhythms of the new international order. The multinational corporations and the financial institutions, like the IMF and the World Bank, started playing a major role in
defining the shape of the global order and the internal economy of the debtor countries like India.

Globalization In Indian Society In Current Scenario:

Globalization has its own characteristics and values, either positive or negative. Globalization is a vast and deep concept having effects and side effects on society. Modernization rise in society due to the acceptance and implementation of new trends in the society. Globalization describes the interplay across culture of macro-social forces. These forces include religion, politics, and economics. India had the distinction of being the world's largest economy in the beginning of Christian era, as it accounted for about 32.9% share of world GDP and about 17% of the world population. India's exports were stagnant for the first 15 years after independence, due to the predominance of tea, jute and cotton manufactures.

Impact Of Globalization On Indian Social Aspects:

Globalization came to India through the economic reforms and is gradually transforming our culture and self- image. Following aspects show the impacts of globalization on Indian society.

Socio- cultural life :

Impact of globalization, joint family is converting into nuclear family. Global process affected the family structure and social construction. Small size, heterogeneous groups, money are a center of family, generation gap, secondary relationship etc effects are the gifts of globalization and concern process. With the process of globalization, existence of fashion and fad can see in society. In spite of culture, civilization raised in society. Globalization has given the birth to marginalization. Globalization and urbanization are responsible for addition the new modern issues in family. Secondary relations, effect and attachment of peer group, free and zigzag life style etc are the serious symptoms of this process. Earlier life partners were searched from local areas and from within their caste. Now inter-caste marriages i.e. marriages within families with totally different social systems are quite common. Majority of such marriages are getting fructified either in the study institutions or at their work place. Globalization has thus greatly affected our social fabric. The shared experience is giving new meaning to our life and is leading to changes in our culture, religious practices
and spirituality. Global population is getting closer to sharing similar social values, aspirations, attitudes and life styles. Local culture, spiritual practices and core social - values have been getting reframed and a new meaning is being given to human life. It is globalization and globalization alone, which is responsible for changing people‘s outlook and life style.

Women and children:

Globalization and urbanization are involved in the different issues which are related to the women empowerment. Women reservation, rights, problems, status and authority etc are now days known to women. In family may be we can say that women are getting the favorable situation but along with we cannot ignore the different modern problems of women. It‘s true that in the midst of a great revolution in the history of women. The voice of women is increasingly heard in Parliament, courts and in the streets. India is a society where the male is greatly revered but impact of globalization women participating in all the fields. Globalization brings all women together to act. The modern development of technology offers the possibilities for women to communicate more directly through networking both within and across countries. Child labors, bonded labors, exploitation, avoidance of human rights etc are the today‘s hot topics related to children.

Education:

There are immense effects observed in educational sector due to globalization such as literacy rate become high and Foreign Universities are collaborating with different Indian Universities. The Indian educational system faces challenges of globalization through Information technology and it offers opportunities to evolve new paradigms shifts in developmental education. The distinction between formal, non-formal and informal education will vanish when move from industrial society to information society takes place. Globalization promotes new tools and techniques such as E-learning, Flexible learning, Distance Education Programs and Overseas training. Education System In modern

world, the effects of globalization directly shows on various contents of social parameters. Boom to the professional and commercial education with the specific development of science and technology, creation and awareness for global education, stress on the human job resources etc are the cognizance issues in globalization process.

Community and Society Structure:

Every stage of life, there are the effects of globalization. Social, cultural, religious, economical and political life of man involve in IT contents. The rapid increase in computing and communications power has raised considerable concern about privacy both in the public and private sector. Even government frames the policies time to time as per the scope and direction of current trend.

Indian rural and urban social life:

Rural development primarily concerned with uplifting people out of poverty. Major aspects of globalization that relate to rural life or its development which includes the commercialization of agriculture and expansion of agro- industries, the liberalization of international trade and marketing for food and other agricultural products, the intensification and internal labour migration, the increasing privatization of resources and services and the wider use of information and communication and technologies. Globalization also provides better exposure to the agricultural produces and ensures the farmers that they get the correct value. The linkages both visible and invisible, defining the cultural interdependence among communities and regions in India which have existed historically, reinforce instead of threatening the national identity. Rural Economy of India GDP and GNP are affected by the various agriculture implementation programmes and policies in Indian society. These bonds seem to become stronger as India encounters the forces of modernization and globalization.

Administration system in Indian society:

Indian administration has undergone sea-change in response to new inputs from the contemporary socio- economic and political scene and under the impact of globalization. Now the competition with private sector has increased. The public sector has to compete with private sectors in case of cost, quality, and span of production otherwise it has to face elimination. Financial matters of our country, may it be related to banks, inflation, share prices, monetary and fiscal policy, budget are being finalized according to international financial market. The scope of public sector is becoming limited so the powers and functions of bureaucracy have been reducing, due to the entry of foreign investors in telecommunication, roads, posts, airports, insurance, health, education and IT sectors.
NGOs and corporate organizations are taking vital role in society and ancient Indian administration changed due to globalization.

Conclusion:

India is getting global recognition and slowly moving forward to become a major economic and political strength. It has a very profound impact on both Indian rural and urban life. India‘s globalization, urbanization and rural development have shown remarkable growth. India is changing, however, the pace of change varied from time to time, group to group and region to region. The basic social institutions of India‘s countryside such as village, the joint family system and the caste and tribe relation are under great transformation due to impact of globalization.

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Evaluate Analysis of Educational Quality Improvement and a Goal of Education for All Principle of Action Adopted

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Abstract

Education is recognized as a human right since the adoption of Universal Declaration of Human Rights in 1948 besides health and shelter. Education for All Goals was established where more than 150 governments have adopted world declaration on Education for All policy to support the universal right for education. The ultimate goal of many countries is to guarantee the optimum educational access rates for improving the quality. Similarly, quality is reflected by a range of indicators, including government spending on education, student/teacher ratios, teacher qualifications, test scores, and the length of time students spend in school. Every investment must be measured against how it can serve such aspects to ensure the ultimate quality of Education for All programs. Therefore, there is need of multifaceted standpoint and reasoning framework to realize educational policyevaluations that can truly contribute to the improvement of educational situation in developing countries and around the world.

Keywords: education, policy, qualification, quality education access, teacher

Introduction

Education is an essential tool for social and economic growth of a country. The basic educational skills; like reading and writing increases a person's income up to 10% acting as the perfect weapon that lifts individuals to freedom, which helps to eradicate international poverty and hunger. Different nations of the world have declared that it is the right of every person to get education by speaking through the Universal Declaration of Human Rights (World education forum, 2000). Education for All policy (EFA) has been launched at World Conference in 1990 that as a universal commitment that provides quality basic education for all children, youth, and adults. Education for All Goals were established at Jomtien (Thailand) in 1990, where more than 150 governments adopted world declaration on Education forAll policy and committed to support the universal right for education by achieving free quality education access. It was reaffirmed 10 years later in 2000 World Education Forum in Dakar (Senegal), where following six Educations for All goals were adopted to be implemented by 2015;

1. First goal is to expand and improve early childhood care and education;
2. Second is to achieve gender parity by 2005 and equality by 2015;
3. Third is access to free, quality, and compulsory primary education to all;
4. Fourth is to increase adult literacy by 50%;
5. Fifth is to promote learning and life skills improvement for youth and adults;
6. Finally, to improve every aspect of educational quality.

Literature Review

Policy Definition and Scope

Educational policy is considered as a program related to the design of Education for All program, concentrating on specific area of its quality (Haddad & Demsky, 2005). Quality of education is a broad concept and there is no single definition that has identified the exact meaning of quality due to its complex nature. Terms; like effectiveness, equity, efficiency, and quality have often been used synonymously (Adams, 1993). The definition of quality should always be flexible for change to cope with educational evolution and its continuous progress (Glasser, 1990) as quality is influenced by

various changing factors; such as, politics, culture, and economy. EFA Global Monitoring Report (2005) used two principles to define the educational quality:

1. The first is to recognize the cognitive development of learner's as the major objective of all education systems.
2. The second is to highlight the role of education in promoting the values and attitudes of the learners andin nurturing their creative and emotional development.

Goal

The main focus of 2005 Quality Imperative report is related to the improvement of educational quality and the progress towards achieving the Millennium Development Goals (MDGs) to overcome extreme poverty. It is helpful to decrease the spread of HIV/AIDS and to provide universal primary education. Quality of education is aimed to enhance all features of educational quality by ensuring excellence in all educational progresses, inputs, and outputs especially in literacy, numeracy, and essential life skills.

Analysis of the Existing Situation

A policy change, as described by Haddad & Demsky (1995), is usually a response to a problem or a malfunction in a sector. In this case; focusing on the quality of education is essential to achieve the ultimate goal of Educationfor All. In addition to the analysis of Education for All, policy analysis should review several aspects that has affected the decision-making and implementation process of the educational sector.Quality education includes: learners, learning environments, content, process, and outcomes. EFA Global Monitoring Report (2005) has adopted a framework, comprised of such five major factors, which has affectedthe quality of education and influence its core process of teaching and learning. This has provided a better understanding of educational complex system. These dimensions are interdependent and influencing each other in unpredicted ways. Focusing on their interactions can help to draw up a comprehensive map for understanding, monitoring, and improving the quality of education.

Family Support for Learning

Parents‟ background and level of education plays an important role in students‟ educational quality. Financially, parent's income and social status highly affect the decision of children enrolment in schools, especially in developing countries (Carron & Chau, 1996). Academically, Williams (2000) revealed that children with poor educated parents have achieved three times lower scores or grade repetition as compared to those with parents with some secondary schooling. Successful attempts to enhance parental involvement especially in developing countries need to be considered. In Sri Lanka, an eight-week program was conducted to enhance literacy skills of uneducated low-income mothers that has a positive effect on their children's educational outcomes (Dharmadasa,1996).

Regular Attendance for Learning

It is said that regular school attendance and constant exposure to curriculum influence students‟ achievement levels. As consistent with many research findings, a village-based study that took place in Malawi confirmed that students with higher attendance rates have attained higher learning Early Childhood Psychosocial Development Experiences.

Peaceful, Safe Environments, Especially for Girls

A non-discriminatory climate within schools and classrooms is critical, when creating a quality-learning environment. Gender and race equality along with other efforts have improved the learning environment for girls and all students leading to actual results Interaction between School Infrastructure and other Quality Dimensions

The location and conditions of schools regarding building's quality including the maintenance and availability of basic equipment; such as, furniture, textbooks, lavatory, and clean water supply. Here, the students did not have to leave the premises for their primary needs that has an impact on the quality of teaching and learning process and students‟ participation.

Ongoing Professional Development

Professional development and ongoing teacher's training programs have positive direct impact on students‟ achievable levels. Moreover, teachers should depend on dialogue and reflections with colleagues, journals, and peers‟ and supervisors‟ observation to increase their knowledge Mombasa school improvement project in Kenya revealed that teachers attending in-service and

external workshop training showed improvements in their ability to use student centered teaching and learning techniques

Methodology

The study has aimed to analyze the educational quality based on the goal of education for all policy. A brief literature review was conducted for identifying the studies that are associated with analysis of educational quality.The tie period selected for this study was between 1990 and 2010. The study has been divided into following sub-themes that include; analysis of supervision and support, evaluation of study policies, and outcomes.

Analyzing the Supervision and Support

Student Access to Languages Used at School

Language policy implementation faces various debates on which language to incorporate in the early years of primary education. Much discussion is focused on whether the mother language of the country or a foreign language (English or French) should be instilled in the early learning years. Many parents and teachers encourage the focus on foreign language claiming that learning in the mother tongue can compromise students learning French or English later. Some even believed that their mother language is not capable to deal with scientific and technical concepts. Therefore, it results in a linguistic gap among students that is usually overlooked (Cazden, 2000). Other research has proven that students using the mother langue in school have improved reading abilities by the end of grade one as compared to the students in less developed countries dealing with linguistic complexes (Abadzi, 2004).

Results

The present study has illustrated that there is a critical relationship between students‟ educational outcomes and quality of environment, content, and process of the educational journey the learners experienced, as the journey is diverse.Outcomes Related to Community Participation, Learner Confidence and Life-long Learning Academic achievements usually indicate school's quality; while other outcomes like citizenship education and skills for behavioral developments are more complex to measure. DeKetele (2000) distinguished four levels of citizenship education outcomes

1. Students knowledge of their human rights
2. The ability to analyze social situations related to citizenship values
3. The ability to use participative pedagogy and work cooperatively within a group
4. Taking responsibility of their community as in management and decision-making situations

Discussion

There is a wide potential to increase the quality of teaching and learning in every country, school, and classroom. Significant improvements in the quality of education are not impossible by referring back and analyzing rich body of circumstances and experiences. Policies must be inclusive and respond to the diverse backgrounds, needs, and circumstances of all learners. Priorities to low-income countries with severe resource constraints should be considered by focusing on defining the appropriate goals and relevant contents. Educational policies should not be beyond the reach of such countries to facilitate implementation and achievement of desired outcomes.

1. Acknowledgement of the diversity of learners as that of special educational needs and theimplementation of useful educational approaches for the disadvantaged groups
2. Better schools, policies concerning self- government schools and improvement of leadership.

Conclusion

Educational policies cannot be treated as one size fits all endeavors due to different educational conditions and surroundings of each country. Policies; especially the Education for All, should be flexible for utilizing the need of each country's political, economic, social, and cultural situations and backgrounds. It has been evaluated that quality is reflected by a range of indicators, including government spending on education, student/teacher ratios, teacher qualifications, test scores, and the length of time students spend in school. Every investment in basic education must be measured against how well it serves these different aspects to ensure the ultimate quality ofthe Education for All programs. A multifaceted standpoint and reasoning framework should be established to realize educational policy evaluations that contribute towards the improvement of educational situation in developing countries and around the world. The scope for improving the quality of education is vast

and the requirement of technical understanding has all been researched. Therefore, the future studies are required to identify more comprehensive outcomes.

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Impact of Globalization on Environment

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Abstract

Industrialization has increased the number of factories. Increasing urbanization and industry have increased the need for space, raw materials for industries, means of transportation and roads. As a result, forests and natural resources have been depleted. If various resources of nature are used, the scarcity of those resources can be replenished after some time. But given the current situation, the pace of resource utilization is much faster than the time it takes to make up for the shortfall. Its various effects are visible. They have resulted in various types of pollution, deforestation, loss of biodiversity, global warming, desertification and many more. Understanding the various adverse effects on the environment helps in understanding the seriousness of the problem. Therefore, it is possible to understand the adverse effects in the present as well as in the future. Understands the need to take necessary measures by thinking in terms of reducing the problem. If everyone is aware of their responsibilities and strives with foresight, it will be possible to reduce the adverse effects on the environment and achieve real development.

Key words: Globalization, Environment, pollution, loss of biodiversity, Deforestation, Rising temperature, Desertification

Globalization:

Globalization has accelerated since the 18th century due to advances in transportation and communication technology. Globalization is the process of interaction and integration among people, companies, and governments worldwide. Globalization is primarily an economic process of interaction and integration that is associated with social and cultural aspects. This increase in global interactions has caused a growth in international trade and the exchange of ideas, beliefs, and culture.

Definition:

One of the popular political scientists, James Rosenau, described the term as a currently popular label and accounted for people's norms, goods, ideas, services, activities, and currencies that are localized and practiced in a confined area. As per World Health Organization, Globalization is defined as the interdependence and interconnection of people in a local place with the people around the World. The two main elements that need to work here is the ease of flow of goods, services, and activities of people from one place to another and the incorporation and change in policies that allow the easy flow of exchange around the areas.The term globalisation is generally used to describe an increasing internationalisation of markets for goods and services, the means of production, financial systems, competition, corporations, technology and industries.Globalization is a complex procedure that includes the trends and tendencies of the economic, cultural, and social spheres of the people and places around the World. The process is huge and not easily predictable but organized as well. Globalization is a process of worldwide spread of science, technologies, businesses, etc through transportation, communication and trade. Globalization has affected almost all the countries worldwide in various ways such as socially, economically, politically, and psychologically.

Globalization is a term indicating fast and continuous integration and interdependence of countries in the field of business and technologies. There is acceleration in globalization because of the people demands, free-trade activities, worldwide acceptance of markets, emerging new technologies, new researches in the science, etc.

Positive Effects of Globalization

Globalization has given impetus to industrialization in developing nations. Foreign investment has made it possible to borrow from other countries and local industries have been set up by foreign companies along with local industries. Industrialization has led to an increase in the number of industries and factories. Various schemes and rules have been formulated to give a boost to the

industries. foreign factories have been allowed to come to their place, various foreign companies have been allowed to set up in different countries.

1. It has brought a huge revolution to the employment sector by the spread of businesses like cottage, handloom, carpet, artisans and carving, ceramic, jewellery, and glassware etc.
2. Globalization has affected the students and education sectors to a great extent by making available study books and huge information over internet. Collaboration of foreign universities with the local universities has brought a huge change in the education industry.
3. Health sectors are also affected a lot by the globalization of common medicines, health monitoring electronic machines, etc.
4. Globalization of trade in the agricultural sector has brought variety of quality seeds having disease resistance property.
1. Greater business competitiveness and product quality.
2. Development of technology that is beneficial to the level and speed of products.
3. Free trade in goods and services worldwide.
4. Reduction in production costs.
5. Providing large-scale employment in developing countries, as multinational companies are strategically established in it because raw materials and labour are cheaper.
6. Provides Cheaper Goods for Consumers.
7. Promotes World Peace and Unity.

The Disadvantages of Globalization

1. Unequal economic growth.
2. Lack of local businesses.
3. Increases potential global recessions.
4. Exploits cheaper labour markets.
5. Causes job displacement.

Impact of globalisation on Environment:

Environment- A related term "Environ" is defined as "to surround" or "to enclose". Environment means Surrounding in which we are living. Environment includes all those things on which we are directly or indirectly dependent for our survival, whether it is living component like animals, plants or non-living component like soil, air water It includes physical, chemical and other natural forces.

In the environment there are different interactions between animals, plants, microorganisms, soil, water, and other living and non-living things. Living things live in their environment. They constantly interact with it and adapt themselves to conditions in their surrounding.

Globalization has huge negative impacts on the environment and given rise to various environmental issues:-

Pollution:

Growing industries and factories create different types of pollution. There are different factors in the environment. In any of these many components, if a harmful sub-component is added, that component becomes contaminated. This is called pollution of those components. Pollution changes the chemical, physical and biological properties of an element and adversely affects its natural resources. Harmful gases such as carbon dioxide, sulphur dioxide, and carbon monoxide are released into the atmosphere from factory chimneys. Contaminated air is harmful to living things. Acid rain affects plants, animals, soil, crops, historic buildings or sculptures. Chlorofluorocarbons used in industry are depleting the ozone layer in the upper atmosphere. Industrial pollutants are beginning to feel the effects of greenhouses (the effects of heat from the sun being localized to the Earth's atmosphere). Also, if plastic is preserved in the environment, it will have a detrimental effect on the living beings, their habitat and human life. Food, excreta, chemicals, piles of broken items, electronic waste, etc. thrown in the open.

Organic and inorganic wastes have created global pollution problems. Research into nuclear power and nuclear power has led to increased levels of radiation in the environment. Pollution not only affects human health but also many inanimate elements like rocks and water. Rocks are eroded and water gets poisonous. Soil productivity is lost, colours and properties change Air pollution, water pollution, soil pollution, space pollution and many other types of pollution have been created due to the wrong implementation of the concept of development by human beings. All the ever-growing

environmental issues need to be solved on urgent basis by international efforts otherwise they may finish the existence of life on the earth a day in future.

Loss of Biodiversity:

Increasing human encroachment on wildlife habitats is causing a rapid loss of biodiversity that threatens food security, population health and world stability. A wide variety of plants, animals and other living things are being destroyed due to the destruction of the natural environment for them especially when land-based requires infrastructure like roads and bridges. The development of such infrastructure can lead to issues including habitat loss and pollution. In order to prevent the loss of environment, there is need of globalization of eco-friendly technologies and huge level environmental awareness among people. In order to deal with the negative effects of globalization, companies need to develop greener technologies which may replace the current status of the environment. However, globalization has helped a lot positively to save the environment by improving various resources (reducing adverse effects on the environment like hybrid cars using less fuel) and promoting education.

Deforestation:

Deforestation can involve conversion of forest land to farms, ranches, or urban use. for agricultural expansion, for fuel or building materials, mining, and human settlement. Forest provides shelter to plant and animal species while also providing natural resources such as medicine, food, timber, Wood-based industries such as paper, matchsticks, and furniture need a substantial quantity of wood. Trees help to mitigate carbon dioxide and other greenhouse gas emissions, but they become carbon sources once they're cut, burned, or otherwise removed. Trees purify our air, filter our water, prevent erosion, and act as a buffer against climate change.

But due to overcrowding, deforestation is rampant and various problems are being created. Deforestation causes soil erosion as the roots of the tree hold the soil tightly in the ground, thus increasing the rate of soil erosion due to wind, rain, etc.

Rising temperatures:

Rising factories, increasing number of vehicles, decomposed waste, etc. increase the amount of carbon dioxide. Industrialization causes huge amounts of Carbon dioxide Industrialization causes huge amounts of Carbon dioxide. The process of utilizing carbon dioxide is being done by plants. Atmospheric carbon dioxide appears to have increased enormously due to deforestation. However, due to the fact that the process of proper carbon dioxide absorption or utilization is very low, the temperature rises due to the increase in the amount of carbon dioxide in the air. The process of using carbon dioxide is done by plants. Temperatures have caused new problem of global warming. Rising temperatures in the polar region have caused glaciers to melt and the water level in rivers and sea is rising due to that water. Its various effects are also seen on the wild life these region.

Desertification:

Deforestation erodes the soil and exposes rocks. The rock breaks down to form sand. Deforestation reduces rainfall and makes Global warming is causing various changes in the atmosphere. The polar ice caps are melting due to the rise in temperature and the water level in rivers and sea is rising due to that water. the area arid and barren. Lack of water makes the soil dry. Due to the lack of forest, the winds blow fast and a large amount of rock are eroded to form sand and desert. Desertification is a climate issue that is occurring on almost every continent. It affects more than half of Africa's land. The process of desertification has begun in many parts of the world in the grasslands of East Africa, the Kalahari Desert and the Sahara Desert. These regions span over 65 percent of the land. In Ethiopia, 80 percent of the land is at risk of desertification. Desertification is caused by natural events, such as droughts and wildfires, as well as by human activities, such as land mismanagement and global warming.

Why it is important to take into account the impact on the environment?

Knowing the different effects on the environment makes it possible to do the following:

1) Creating the awareness about environmental problems among people.
2) Imparting basic knowledge about the environment and its allied problems.
3) Developing an attitude of concern for the environment.
4) Motivate to participate in environment protection and environment improvement.
5) To help the concerned individuals in identifying and solving environmental problems.

6) Striving to attain harmony with Nature.
7) To explain the hazardous effects of environmental pollution and measures to protect them from their fatal effects.
8) To create new patterns of behaviour of individuals, groups and society as a whole towards the environment.
9) To focus on current and future environmental trends and conditions
10) Knowing the effects on the environment makes it possible to promote awareness, understanding of the environment, its relationship with man and his activities.

Conclusion-

Man's selfish use of various resources of nature has created various problems. These problems are of serious nature. If we do not think about controlling this problem, the entire living world will be endangered. We need to be aware of the serious consequences of human behaviour on nature. It is important to be aware of the effects on nature. Our future will be secured only if we make a real effort for the conservation of nature by controlling the depletion of nature. The first step is to create awareness. Creating awareness requires a lot of responsible efforts. This mistake needs to be rectified and efforts need to be made to conserve the environment and the various resources in the environment. Only if everyone makes a conscious effort for this will the future be secure.

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Impact of Covid 19 (Corona Epidemic) on Human Life and Behavior: A Short Review

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Abstract

The Corona epidemic has plagued not only India but the entire world since last year. The epidemic has adversely affected economic, social, cultural and human activities. The economy of the whole country is in a state of disarray and its influence on human behavior is being seen. This effect is found to be both positive and negative. The present paper analyzes the effect of covid-19 on human behavior.

Keywords Covid-19, corona, human behavior

Introduction

The epidemic of covid-19 has affected every element and has also affected human behavior. The epidemic caused lockdowns across the country, shutting down businesses, small businesses, labor, and so on. This was found to have an effect on human action. People who work every day are worried about whether they will get tomorrow's meal or not. Changes in human behavior have been observed. The present paper analyzes the changes in human behavior caused by covid-19

Objectives The main objective of the present research paper is to discuss the impact of covid-19 on the human behavior.

Data Source & Methodology

Present paper is mainly based on the secondary source of data and it is complied from daily news papers, news channels, published papers and articles, and the observation of situation on surrounding during the period of covid-19.The impact on covid-19 is shows on the basis of complied information. It shows on the basis of main points of impact.

Study Region

The present discussion is based on the overall impact of covid-19 on human behavior on the entire country. Therefore this discussion is not based on the specific region.

Impact of Covid-19 on Human Behavior

Corona forced you to change. Whether we accept it or not, these changes have taught us a lot. The changes we accepted, especially with regard to religious beliefs and festivals, were significant.
Every year when the rainy days come, we have a festive taste. Festive days like Shravan-Bhadrapad for Hindus, Ramadan for Muslims and Paryushanparva for Jains begin. The concept and planning of all these festivals changed completely with Corona this and last year. Nowhere is there a big celebration, we all see the crowds appealing and the festivals celebrated with only the essentials. Without Corona, such festivals could be celebrated without believing it.The main impacts on human behavior of this epidemic as follows,

Control over festivals, celebrations, public events, etc.

In terms of festivals, Ganeshotsav, Dahihandi, Eid-Muharram processions, noise pollution and other disturbances were avoided on the occasion of Corona. The public shows restraint for fear of disease in the public Ganeshotsav, which has a tradition of nearly three hundred years, the processions of copper that have been going on for many centuries, the crowds in the name of curd for years. This is the main change and impact found of covid-19 on human behavior.

Awareness about hygiene and disinfection process

Many people are now more aware of the epidemic of hand hygiene and disinfection than ever before. During this time, radical changes in human behavior, such as keeping your surroundings clean, washing your hands from time to time, and cleaning yourself when you enter the house from outside, has been observed.

Changes in people's mental health

There was a sudden increase in sadness, anxiety, frustration, loneliness, worry, fear, as well as irritability. People's social contact has decreased and this has led to increased feelings of loneliness. Lockdown caused depression in humans sitting at home.

Impact on Family

The lockdown showed positive changes in many families and negative changes in some families. People who were constantly out were able to stay at home at the same time so that they could spend time together, which was found to increase their unity.The survey found that in some families, quarrels, quarrels, and divorces were the result of having the same home.Many are depressed, and according to Mansopran, the consequences vary from family to family. The family is classified into three types namely economic, educational and social. Lockdown has different effects on all three types of family. The woes of a family with a stomach on their hands are different; they can afford to stay at home. So, naturally, lockdown is the reason for their formation.

Impact on Expenditure

Due to the lockdown, all were closed; so many people's earnings were unchanged. This increased the rate of austerity in humans, began to spend where necessary. On the other hand, the cost of sanitizer, hand wash, etc. has increased. People who were living on daily wages were found to have anorexia nervosa. So the spending of people who are rich and have government jobs has increased on the internet.The phrase 'adaptation of adversity' is often used in our society. We are seeing a huge response in our society to the trends that are being created through social media, the behaviors that are becoming commonplace in social affairs, etc. However, it is not so difficult to implement the above provisions through governmental and civic NGOs or to inculcate them in the society by holding the hands of the groups which were able to achieve social distance, work from home, festivals at home etc. during the lockdown.

Conclusion and Suggestions

The lockdown of the Corona epidemic has brought about both positive and negative changes in human behavior. It is the duty of human beings to maintain the positive and positive changes that have taken place. It is necessary to sustain the changes that have taken place in stopping unnecessary expenses, saving fuel without going out in vain, reducing pollution, etc.So the good habit of giving alms was reflected in human behavior.It is also in the interest of the nation, as a substitute for society, to perpetuate some of the habits of civic behavior in society, just as some of the good health habits of corona infection did. It is our duty as part of the system and, alternatively, civil society to strive for its preservation. If it is not implemented, the lessons learned from the Corona crisis will be useless. In addition to restricting the spread of the disease, the disaster has created an opportunity to change the perceptions of the masses. We need to keep in mind that if we do not take advantage of this opportunity, we will become immature as a society.

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Quality Education: An Overview

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Abstract:

Quality education is a human right and a public good. Governments and other public authorities should ensure that a quality education service is available freely to all citizens from early childhood into adulthood. Quality education provides the foundation for equity in society. Quality education enables people to develop all of their attributes and skills to achieve their potential as human beings and members of society. Quality education is one of the most basic public services. The problems in today's society with the education system are endless. So many students are deprived of the quality of the education they deserve today. Many elementary and high schools are improving but deserve more attention with school supplies, smaller classrooms, and need more highly qualified teachers. Schools today are in a bad need of change. In today's society, the internet has become a very important learning tool. It is used for day to day activities, such as a place to look up research, a method of getting in touch with friends and family, and somewhere to go to find information about almost anything imaginable. The most popular uses of the internet include entertainment and education. Many people argue that the internet should be used for educational purposes only. The solution to most of the nation's major crisis' lies in the educational reform. The education system is responsible for turning out the future of our nation, and it is severely failing at it. Current emphasis on money and capability of teachers is not where the solution of the problem lies, even though it is thought to be the needed "quick-fix". Today's school systems do not promote the student in singular. Public schools have become more and more crowded with lack of teachers and lack of classrooms. The problem with teaching students is that if they do not have the attention of their teacher, they are easy to stray off from their studies. The solution to this problem lies in a more one-on-one approach to teaching children.

Key word: Quality education, free to all, basic public service, use of modern technology

Introduction

The quality of education and its determinants remain a topic of interest since the beginning of formal education. It is possible to develop indicators to measure learning along important dimensions, closely related to the curriculum, both in standardized assessment instruments and in alternative forms of assessment. Non standardized assessment refers to the traditional form of assessment by teachers on regular basis through classroom interaction, questions, assignment of homework and other such techniques. The results of such assessment may be accurate or faulty, depending upon the teachers' skill as a judge of various indicators and their applicability in a given situation. It is assumed that levels of learners' achievement are assessed at best through standardized achievement tests. Education enables upward socioeconomic mobility and is a key to escaping poverty. Over the past decade, major progress was made towards increasing access to education and school enrollment rates at all levels. For years we have heard that in order to succeed one has to receive a quality education. It's kind of funny though, with all the talk about the need for this great quality education nobody ever says exactly what it is. We have also learned that everyone has different standards by which they judge what is and what isn't a quality education, different groups are treated differently, the importance of home education and the effects that our own pursuits of education have had on us.First of all, Education teaches the ability to read and write. Reading and writing is the first step in Education. Most information is done by writing. Hence, the lack of writing skill means missing out on a lot of information. Consequently, Education makes people literate. Above all, Education is extremely important for employment. It certainly is a great opportunity to make a decent living. This is due to the skills of a high paying job that Education provides. Uneducated people are probably at a huge disadvantage when it comes to jobs. It seems like many poor people improve their lives with the help of Education. Better Communication are yet another role in Education. Education improves and refines the speech of a person. Furthermore, individuals also improve other means of

communication with Education. Education makes an individual a better user of technology. Education certainly provides the technical skills necessary for using technology. Hence, without Education, it would probably be difficult to handle modern machines. People become more mature with the help of Education. Sophistication enters the life of educated people. Above all, Education teaches the value of discipline to individuals. Educated people also realize the value of time much more. To educated people, time is equal to money. Education helps in spreading knowledge in society. This is perhaps the most noteworthy aspect of Education. There is a quick propagation of knowledge in an educated society. Furthermore, there is a transfer of knowledge from generation to another by Education. Education helps in the development and innovation of technology. Most noteworthy, the more the education, the more technology will spread. Important developments in war equipment, medicine, computers, take place due to Education.In 2020, as the COVID-19 pandemic spread across the globe, a majority of countries announced the temporary closure of schools, impacting more than 91 per cent of students worldwide. By April 2020, close to 1.6 billion children and youth were out of school. And nearly 369 million children who rely on school meals needed to look to other sources for daily nutrition. Whatever progress our society has made over the centuries is because of education. Being the foundation stone of society, education brings reforms, helps in progress and paves way for innovation. The importance of quality education cannot be undermined in a society, which is why great personalities have extensively written on its need in a civilized society. It is because of education, humans have been able to explore the vastness of the universe and the mystery of its existence in atoms. The concepts like gravity, cognitive dissonance, laser-guided surgical procedures and millions of more would not exist if education were not there to unleash our potential. In the 21st century, there are countries which are lagging behind in the race for quality education.The United Nations understand the supremacy of education for a brighter and prosperous future and is therefore of the consensus that quality education and not merely education should be a reality for all. In its Sustainable Development Goals, the UN has identified quality education as a major goal to ensure the 'transformation of the world' by 2030. By quality education, the UN implies equitable and standard education for all that will promote lifelong learning and the urge to gather knowledge. Inclusivity and equitability are the foundations to be upheld in quality education and not a greater literacy rate. This is a revolutionary approach to understanding education and making it the means of changing the world. The increasing number of crimes, wars, disease outbreaks, drastic economic downfalls, climate change and many other factors has led to unexpected changes in societies around the globe. Due to this, the educationists and developmental organizations around the world place emphasis on the need for quality education and are stressing the need and uniting people towards achieving the goal. From educating a smaller group of people within their community to spreading awareness about the rising global issues, the educated people can work in an array of ways to achieve the goals. Besides formulating new methods, traditional methods like employing drama and art in education can also yield optimum results and help in enriching the educational process.

Everyone can participate in their own ways to provide quality education around the world. Here are some of the targets that UN has set for 2030 in this section:

1. By 2030, ensure that there is free primary and secondary education for girls and boys for effective learning outcomes
2. By 2030, ensure that both girls and boys have access to quality early development and pre-primary education
3. Ensure equal access to affordable and quality technical, vocational and tertiary education
4. Increase the number of people, both youth and adults who have relevant skills for employment, jobs and entrepreneurship
5. Eliminate all discrimination in education
6. Ensure universal literacy and numeracy
7. Ensure education for sustainable development and global citizenship
8. Ensure building and upgrading inclusive and safe schools
9. Expand higher education scholarships for developing countries
10. Increase the supply of qualified teachers in developing countries

Education must not only concentrate on the content of subjects taught at school rather it should divert its attention to the development of the emotional and creative aspect of the students. As such makes

use of the term academic education to lay emphasis on a content driven education whereby the educator will follow the curriculum and teach the students the subjects they just need to know and to assimilate. This is so only for the students to obtain results in the final examinations which will ensure them an entrance to the next level of schooling. This type of education does not cater for the development of creativity and emotional behavior of the student. In fact such education applies pressure on the students to get better results which creates a hectic life for the students.

Teacher quality refers to the set of inputs like certification and test scores is an indicator of successful teaching in classrooms. However, quality teaching is different from teacher quality. It is the process of giving information to the students to learn. The student should be able to understand what has been taught. In other words, the learner should assimilate as much as possible. Quality teaching hinges upon what is being taught and how it is being taught in order for the learner to comprehend the subject matter. The subject content has to be taught in a proper, suitable as well as be pointed at a well-meaning subject matter. The ways and means applied by the educator should be reasonable and appropriate rather than what qualifications and training teachers have. According to UNESCO (2000), gender disparities in primary and secondary education should be eradicated by 2005 and gender equality in education should be achieved by 2015, with an emphasis on ensuring that girls gain full and equal access to and achievement in basic education of good quality. This is so because Gender-based discrimination is one of the most problematic restraints in the realizing of the right to education. If this is not overcome, then Education For All is not possible.Hence, the education of girls is a vital aspect for a country because it stimulates a drop in fertility rates and makes sure of an improvement in children‘s health. In the colonial period of Mauritius, people from African and Indian origin and the colored people had no access to education. The white children were the only ones who were educated. Then again the education given to the girls of white origin was deeply sex-stereotyped whereby they were only taught of how to develop their feminine personalities and to be potential housewives. In the 1950s the government took seriously the totality of education of all ethnic groups, and thus the education of girls started.

Conclusion:

Education is a ray of light in the darkness. It certainly is a hope for a good life. Education is a basic right of every Human on this Planet. To deny this right is evil. Uneducated youth is the worst thing for Humanity. Above all, the governments of all countries must ensure to spread Education. Poor quality education is leading to poor learning outcomes in India, ultimately pushing children out of the education system and leaving them vulnerable to child labour, abuse and violence. Many classrooms continue to be characterized by teacher-centered rote learning, corporal punishment and discrimination. Quality education is the foundation of sustainable development, and therefore of the Sustainable Development Goals. As a policy intervention, education is a force multiplier which enables self-reliance, boosts economic growth by enhancing skills, and improves people’s lives by opening up opportunities for better livelihoods. The Sustainable Development targets for 2030 call for ensuring the completion of primary and secondary education by all boys and girls, and guaranteeing equal access to opportunities for access to quality technical and vocational education for everyone. Policy interventions will require improving access and improving quality, as well addressing relevant obstacles which include gender inequalities, food insecurity, and armed conflict. Key drivers include higher enrolment as well as efforts to ensure lower drop-out rates in schools along with, factors such as greater proportion of population in the school going age, growing middle class population with increasing income levels, increasing private spend on education, while challenges relating to access to and participation in education, quality of education imparted, sectoral efficiency, governance and management, and financial commitment to education development also continue to persist.

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Structural properties of Lithium Ferrite ($Li_{0.5}Cr_xFe_{2.5-x}O_4$)

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Abstract:

Particle size optimization is indispensable in many aspects for improving the properties of the materials. Here in nanoparticles of $Li_{0.5}Cr_xFe_{2.5-x}O_4$, (x = 0.0, 0.2, 0.4, 0.6, 0.8 and 1.0) ferrite were synthesized by the sol-gel auto-combustion method. Through the optimization of various parameters, the dimensions of the nanocrystalline ferrites are achieved within the range of 20- 25nm. The structural changes with the substitution of Cr were analyzed using X-ray diffraction (XRD). The diffraction pattern confirms the formation of the single-phase spinel structure with cubic symmetry. It is observed that replacing Fe^{3+} ions with the Cr^{3+} ions results in enhancement of the nanocrystalline size. Transmission electron microscopy photograph shows that the powders consist of nanometer sized grain.

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Introduction: Magnetic nanoparticles are of large technological importance because of their use in information storage system, magnetic fluid, medical diagnosis and their interest in fundamental science, especially addressing the doping of Sm and Co in bismuth ferrite will influences the properties like magnetic, structural ,dielectric, ferroelectric and leakage current density [1]. Spinel structure formation and cation distribution of ferrite powder is confirmed by using Fourier transform infrared spectroscopy with the proposed data using XRD [2]. The ability of nanoporous ferrite to dissociate water molecule has been exploited to develop a green electrical energy cell, which is a combination of electrode chemistry and material science [3].Lithium-nickel ferrite nanocrystalline particles were synthesized by a low temperature citrate gel autocombustion method and its structural parameters like lattice parameter, X-ray density, bulk density, and porosity has determined [4] Magnetization Mg-doped lithium ferrite decreases with increases in doping percentage of magnesium and it vanishes above the comparatively high Curie temperature Tc of 900 K [5]. By using laser diffraction technique the dispersity of the synthesized lithium ferrite powder was investigated , it is seen that there is slightly decreases in the average particle size of the ferrite powder by increase in the mechanical milling time [6]. Copper-doped cobalt ferrite nanoparticles shows decrease in crystallte size with increase in doping materials, while VSM results showed that the final materials are ferromagnetic and there is decrease in magnetization due to the decrease in the value of magnetic moments of octahedral sites[7]. Cobalt doped spinel $MgFe_2O_4$ ferrite nanocomposites with improved magneto-optical and photo-catalytic properties of transition metal are seen, as cobalt content increase band gap of ferrite material goes on increases [8]. Dye-sensitized solar cell based on FeO nanorods shows conversion efficiency of 0.43%,under the light radiation of 1000 W/m^2, which is enhanced than FeO nanoparticles [9] By increasing heating rate, the average crystallite size of sintered ferrite samples decreases, during the heating period the specific surface of nanosized Mn-Zn ferrite powder strongly enhances while density of ferrite decrease [10] The coordinates of atoms, the dimensions of unit cell, the occupation factors of atom, isotropic temperature factors, as well as the interatomic distances of copper doped Mg-Zn ferrite have been determined.

Experimental: Nanocrystalline powders oflitium ferrite ($Li_{0.5}Cr_xFe_{2-x}O_4$) were prepared by sol–gel auto-combustion method. The citric acid ($C_6H_8O_7 \cdot H_2O$), lithium nitrate ($LiNO_3$), chromium nitrate ($Cr(NO_3)_3 \cdot 9H_2O$) and ferric nitrate $Fe(NO_3)_3 \cdot 9H_2O$ with grade of analytical reagents were used as starting materials. In air atmosphere synthesis was carried out without protecting by any inert gases. The molar ratio of 1:3 was taken for metal nitrates to citric acid. To get a clear solution the metal nitrates, were dissolved together in a minimum amount of double distilled water. The metal nitrates solution was mixed with an aqueous solution of citric acid, then ammonia solution was slowly added to adjust the pH at 7. The mixed solution was kept on to a hot plate with continuous stirring at 90 ^{0}C.During evaporation, the solution became viscous and finally formed a extremely viscous brown gel. The viscous gel began frothing ,when finally all water molecules were removed from the mixture.

After some time (few minutes), the gel automatically get ignited and burnt with glowing flints. The decomposition reaction would not stop before the entire citrate complex was consumed. The auto-combustion was completed within a very short time (minute), yielding the brown-colored ashes termed as a precursor. Prepared powder was then annealed at 600 ^{0}C for 4 h.

Result and Discussion:

Structural properties

Fig. 1 represents X-ray powder diffraction patterns of $Li_{0.5}Cr_xFe_{2.5-x}O_4$ (x = 0.0 -1.0 in steps of x = 0.2) for all the samples. It is pertinent to note that superstructure lines were observed in the XRD pattern (Fig. 1). The superstructures peaks such as (2 1 0), (2 1 1), (3 1 0), (3 2 0), (4 2 1) are evidence that this sample has ordered spinel type structure. These superstructure lines arise from ordering of the lithium sublattice and are seen for conventionally prepared materials that have reached thermodynamic equilibrium [Metastable, disordered $Li_{0.5}Cr_xFe_{2.5-x}O_4$ has been isolated previously by quench techniques [11].

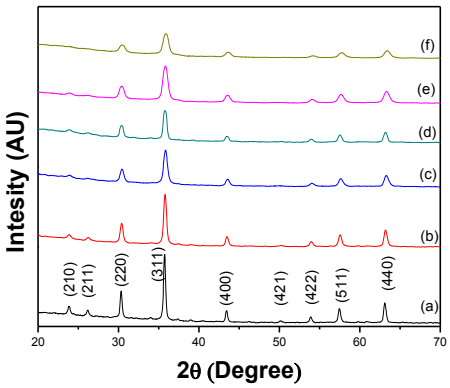

Fig. 1 XRD pattern of Lithium Ferrite ($Li_{0.5}Cr_xFe_{2.5-x}O_4$)

In this material the lithium atoms are disordered with a statistical distribution over the octahedral sites and superstructure lines are not observed. At higher levels of chromium substitution no superstructure lines were observed (Fig.1). This indicates that the chromium is most likely statistically disordered within the structure and disrupts the ordered lithium arrangements. These indicate that sphere-like nanostructures obtained by presently employed sol-gel method are uniform in both morphology and particle size, but have agglomeration to some extent. The average particle size was calculated to be 35-23 nm from the measurements on the TEM micrographs. This indicates the polycrystalline nature of the prepared sample. The lattice constant 'a' of all the samples was determined by using the formula [12]

$$a=\frac{\lambda}{2}\left[\frac{(h^2+k^2+l^2)^2}{\sin\theta}\right] \text{---------- (1)}$$

where, (hkl) are the Miller indices and the ɵ is the diffraction angle corresponding to the (hkl) plane. The mean ionic radius of the tetrahedral (A) 'r_A' and octahedral [B] site 'r_B' can be calculated by modifying the relation discussed elsewhere [13].

The decrease in 'r_B'may be due to the increasingly occupation of the smaller ionic radii of Cr^{3+} (0.63 Å) ions to the B-sites instead of Fe^{3+} (0.67 Å) ions. The slow increase in r_A is due the migration of Li (0.78Å) from B- site to A- site. The theoretical values of lattice parameter can be calculated with the help of following equation [14].

$$a_{th}=\frac{8}{3}\sqrt{3}[(r_a+R_o)+\sqrt{3}(r_b+R_o)] \text{---------- (2)}$$

where, r_A and r_B are radii of tetrahedral (A) site and octahedral [B] site, R_O is radius of oxygen i.e. (R_O = 1.32 Å). The values of theoretical lattice parameter `a_{th}' obtained by using relation (1) are given in 1. The variation of theoretical values shown Fig.4 is similar to that observed for experimentally determined lattice parameter. Using the values of 'a', the radius of oxygen ion R_O = 1.32 Å and 'r_A' in the following expression, the oxygen positional parameter 'u' can be calculated [15],

$$u = [r_A + R_o \frac{1}{\sqrt{3a}} + \frac{1}{4}] \text{ ---------- (3)}$$

The oxygen parameter 'u' is a quantitative measure of the displacement of an oxygen ion due to substitution of a metal cation into the tetrahedral (A) site. The variation of oxygen positional parameter 'u' is shown in Fig. 5. 'u'decreases as a function of x, the decrease of 'u' is a direct consequence of increasing the trigonal distortion of the B-site oxygen coordination. Increasing the migration of the Li ions into the A-sublattice makes it expand to accommodate these ions. This expansion creates oxygen vacancies in the A-sites, which increases the trigonal distortion of the B-site oxygen coordination.

Conclusions: Ultrafine crystals of Cr^{3+} substituted $Li_{0.5}Fe_{2.5}O_4$ ferrite are prepared at a relatively low temperature (600 ºC) via sol-gel auto combustion route. It was found that Cr^{3+} ions are easily incorporated into the lattice of the ferrites and do not induce crystal-structure changes. Experimental results revealed that the lattice constant and cell volume decrease with the increasing of Cr^{3+} content in $Li_{0.5}Cr_xFe_{2-x}O_4$ specimens. Infrared spectra confirm the transition of ordered pure lithium ferrite to disordered Cr^{3+} doped lithium ferrite. Dielectric properties decrease with frequency and Cr^{3+} substitution.

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Jibanananda Das's Rupasi Bangla: Searching for Home in a Globalized World

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Abstract

Home is where the heart is. All roads that lead to Rome start from home and merge in home. Home is an integral part of our identity. Home has been delineated from different angles through ages. The meaning of home is derived from the disciplines of sociology, psychology, anthropology, history, human geography, architecture, philosophy and ecology. But these multiple meanings have been distorted by the pressure of globalization. In a globalized world it is really difficult to identify the home. It can be found only in literature, especially in Bioregional literature. Poets and authors have depicted their home in their creative works. The present paper intends to examine Jibanananda Das's portrayal of home in *Rupasi Bangla*.

Keywords: home, place, living-in-place, globalization,

Introduction

Home is where the heart is. All roads that lead to Rome start from home and merge in home. Home is an integral part of our identity. Home has been delineated from different angles through ages. The meaning of home is derived from the disciplines of sociology, psychology, anthropology, history, human geography, architecture, philosophy and ecology. But these multiple meanings have been distorted by the pressure of globalization. In a globalized world it is really difficult to identify the home. It can be found only in literature, especially in Bioregional literature where 'home' is viewed as a place which, with its geographical location and cultural traditions, acts as a marker of identity of the people living in the locality. People living in such a specific place are naturally conditioned by its landforms, rivers, water bodies, open fields, agrarian setting, mode of communication, language, local culture, cuisine and practices typical of a particular place. In the novels and short stories of R.K. Narayan, Malgudi becomes a living character. Amitav Ghosh's *The Hungry Tide* presents the Sundarban as a locality contesting with nature's fury. In his popular song '*Dhana dhanye pushpa bhara'* (full of rich rice and flower) Dwijendralal Roy, a contemporary of Tagore, portrayed Bengal as distinct from the rest of the world. In *Rupasi Bangla* (Beautiful Bengal), Jibanananda Das has depicted Bengal as a beautiful place. The present paper attempts to delineate 'home' as depicted by Jibanananda Das in his most popular anthology of poems *Rupasi Bangla*.

The Concept of Home

Shelley Mallet (2004) traces the relevant theories and empirical literature on the subject and raises the question whether or not a home is a place, space, feeling, practices or an active state of being in the world. However, Mallet establishes the need for a multidisciplinary approach to the study of home on the ground that 'home' is a multidimensional concept developed by inputs from sociology, psychology, history, environmental humanism, anthropology and philosophy. Cultural geographers hold the view that home or place is not anything fixed. Doreen Massey (1994) says, "the identities of places are always unfixed, contested and multiple' (5). Later Massey (2005) expresses his view that space should be understood "as the possibility of the existence of multiplicity in the sense of contemporaneous plurality; as the sphere in which distinct trajectories coexist; as the sphere therefore of co-existing heterogeneity" (9). In ecocriticism 'place' is conceived of as the extension of 'home'. In bioregionalism home is the dwelling place having a biotically determined framework. Explaining this framework Doug Aberley defines Bioregionalism as "a body of thought and related practice that has evolved in response to the challenge of reconnecting socially-just human cultures in a sustainable manner to the region-scale ecosystems in which they are irrevocably imbedded" (Aberly 13). Home comes under this bioregional framework. The concept of home is elastic since home may be equal to or smaller than a bioregion. In bioregional discourse the concept of home may be developed in terms of 'dwelling', 'sustainability', and 'reinhabitation'. According to Kirkpatrick Sale (1985), to dwell is

to live mindfully and deeply in place, to be fully engaged to the sensory richness of our immediate environment (Lynch 5). This is the practice of living in harmony with nature and bicultural tradition. Berg and Dasmann call this 'living-in-place'. They explain that 'living-in-place' means "following the necessities and pleasures of life as they are uniquely presented by a particular site, and evolving ways to ensure long-term occupancy of that site" (Andruss 35). 'Sustainability' refers to "the practice of living within the ecological limits of a place in a manner that can be continued by future generations with no deleterious impact on the environment" (Lynch 5). 'Reinhabitation' is learning to live-in-place in order to transform our relationships to place.

Home and Globalization

Globalization has an adverse effect on life across the globe. Every place is changing rapidly. We are losing our native plants and animals, indigenous practices and traditional culture. Technology and new outlook are shaping our worldview and encourage us to break the boundaries of home. No longer living-in-place activities are the norm in the new millennium. Slowly but inevitably we are becoming increasingly detached from our places. In fact, globalization has deterritorialized us. This impact has been captured by Lynch et al: We increasingly inhabit a global monoculture, consuming the same food, watching the same movies, reading the same books, wearing the same clothes, listening to the same music, surfing the same Web, thinking the same thoughts, from Canberra to Kathmandu. (Lynch 6)This results in blatant disregard for indigenous nature and culture. COVID -19 pandemic is a clear manifestation of our broken relationship with nature. What is urgently needed is to reterritorialize our lives and places in order to restore our lost home. Only literature can help us a lot in preparing a bioregional map of our home. This map will enable us to reimagine and reinhabit places. It can allow us to visualize the multiple dimensions of our home places. In his book *Boundaries of Home: Mapping for Local Empowerment*, Aberley argues that maps can reveal socially unjust patterns of environmental harm and degradation of biodiversity and thereby help us to visualize strategies for resistance and a hopeful vision for the future (4-5).

Depiction of Home in *Rupasi Bangla*

Jibanananda Das emerged as the most powerful poet in the post-Tagore era in Bangla literature and his *Rupasi Bangla* brought him to eminence as *Rupasi Banglar Kobi* (the poet of beautiful Bengal).When he composed *Rupasi Bangla* in 1934, he had been passing through a very critical phase oflife.He was then a jobless professor spending his life in a tremendous financial crisis and a promisingwriter creating a number of novels, short stories and poems that brought him no immediate recognition but everlasting fame and popularity after his death. In this period of hard struggle he, confined within the jungle of concrete in the city of Calcutta, wrote the sonnets of *Rupasi Bangla* which was published posthumously in the year 1957. Its publication achieved immediate success as the voice of Bengal eulogizing the beauty of home with all its flora and fauna, rivers and water bodies, culture and history, myths and legends. While he was physically present in the city, his mind wandered in his rustic home searching for the exquisite beauty of Bengal. Rupasi Bangla records the longing of a powerful poet for his home. Jibanananda Das was born on 17 February, 1899 in Barisal, now in Bangladesh. As Sisir Kumar Das says, "the landscape of the riverine district, known for its serene natural beauty untampered by urbanization" left " a deep and pervasive influence on his life and literature" (Chaudhuri ii). The poet's close intimacy with manifold creations of nature is also evident from "Balyasmriti", the recollections of childhood memories, written by the poet's brother Ashokananda Das and published in *Mayukh* immediately after the poet's death. The natural beauty of his homeland shaped his sensibility towards nature and "it remained with his poetic subconscious throughout his life as the most significant space out of which emerged his metaphors and images" (Chaudhuri ii).

In Jibanananda's poetic vision, home is not merely a geographical place but an all-encompassing spirit. Here the land and grasses, the rivers and open fields, the birds and insects, the shrubs and plants, the vegetation and flowers, the historical and mythical figures, with their everflowing tradition and culture get fused by poetic fervor into an incandescent identity (Basu Majumdar 6). In the poet's perception, as Amalendu Bose has observed, "the beauty of the earth has been reflected in the beauty of Bengal" (Basu Majumder 9). The poet expresses his fascination for home:

I have seen the face of Bengal; so the beauty of the earth
I seek no more; waking in the dark, I see
Under the great umbrella-leaf of the fig tree

The daybreak's magpie-robin: all round, silent massed leaves
Of jam and banyan, hijal, peepul and jackfruit.
So Chand, the Merchant long ago, from his honey-bee boat,
Sailing past Champa, saw the same blue shadows float
Of hijal, tamal, banyan – Bengal's beauty beyond form
(Chaudhuri 2)

The biodiversity of Bengal; the unforgettable historical, legendary and mythical characters – all combined together, have glorified Bengalees through ages and invested the same with the glamour of beauty (Basu Majumdar 9). *Rupasi Bangla* illustrates the poet's delineation of home through portrayal of the components that get fused together to build his home:

You can go where you wish; I by Bengal's expanse
Will stay – to see jackfruit leaves fall in the dawn breeze,
Or the myna's brown wings in the dusk turn cold as ice,
Her yellow legs under white down in darkness dance
Once – twice – upon the grass, then all at once
The hijal tree from the forest summons it close to its breast.
(Chaudhuri 1)

The call of his home is irresistible. The poet celebrates his desire to live in Bengal through several births:

I shall return to this Bengal, to the Dhansiri's bank:
Perhaps not as a man, by myna or fishing kite;
Or dawn crow, floating on the mist's bosom to alight
In the shade of this jackfruit tree, in autumn harvest land.
For love of Bengal's rivers, fields, crops, I'll come this way
To this sad green shore of Bengal, drenched by the Jalangi's waves.
(Chaudhuri 3)

Conclusion

Jibanananda Das's home, as depicted in *Rupasi Bangla*, is not merely a habitat for human beings. It is a place where humans live in harmony with nature, where the life of humans is inextricably bound up with the rest of creation, where humans are as important a part of the cosmic design as the natural entities, where all elemental components of nature live sustainably in a symbiotic relationship of interdependence. Such a complete immersion of a poet's personality in the homeland, such a total identification of the spirit of motherland, such a complete absorption in the beauty of home, such a generous and emotional attachment to home is rarely found in any literature.

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Microlevel Analysis Of Land Holdings And Agricultural Practices: Case Studies

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Abstract:

Variations in the agricultural patterns at the micro-level have been explained with the help or physio-socoio-economic factors. In addition, the size and pattern of the landholdings,- the process of fragmentation, and their interrelationships with efficient land utilization has been examined at depth with the help of three villages chosen for the purpose of case study. The condition o:" the scheduled castes in the agricultural economy has been analysed separately to bring out the uniqueness of their situation in relation to the other cultivating castes.

Introduction

In a predominantly agricultural economy like India the agricultural patterns and production, systems are mainly influenced by two sets of factors, physical-environmental on the one hand and technological institutional on the other. Since the farm is the basic unit of agricultural production, the focus of attention must be the *' farm '* itself. The farmers decision-making, regarding the choice of enterprises i. e. a combination of crop and livestock units, type of farming and allocation of resources, largely depends upon the structral orgainzatioo. Land tenure systems and the size of land holdings play an important role in this decision making process, as a major bulk of the total farm out put comes from small units, worked mostly by family labour. The size of landholding is also an important factor in determining the efficient use of the resources available to a farmer. The application of various amounts of inputs to the land and their efficient utilization depends upon the size of holding. It is well known that with the ever increasing population, the pressure on land increases and finally leads to fragmentation of land holdings into uneconomic units.

A major cause of low agricultural efficiency in India is due to fragmentation and subdivision of holdings. Apart from population pressure, the small size of the holdings could be attributed to the laws of inheritance, decline of the joint family system, absence of alternative employment opportunities in the form of handicrafts and village industries, lack of capital investment and attachment to landed property. The result is the existence of numerous small size holdings and widely scattered pieces of land which are uneconomic. These uneconomic holdings give rise to wasteful methods of farm operations (Dandekar and Rath 1971). The disadvantages of fragmentation and scattered holdings are well known; it puts a large proportion of land outside the possibility of effective cultivation or economic development, it wastes time in the need to supervise and it makes capital duplication necessary (Shaw-1963). On the whole it is a serious impediment to the agricultural progress and acts as a deterrent to full utilization of land and farm force (Sigh 1976).

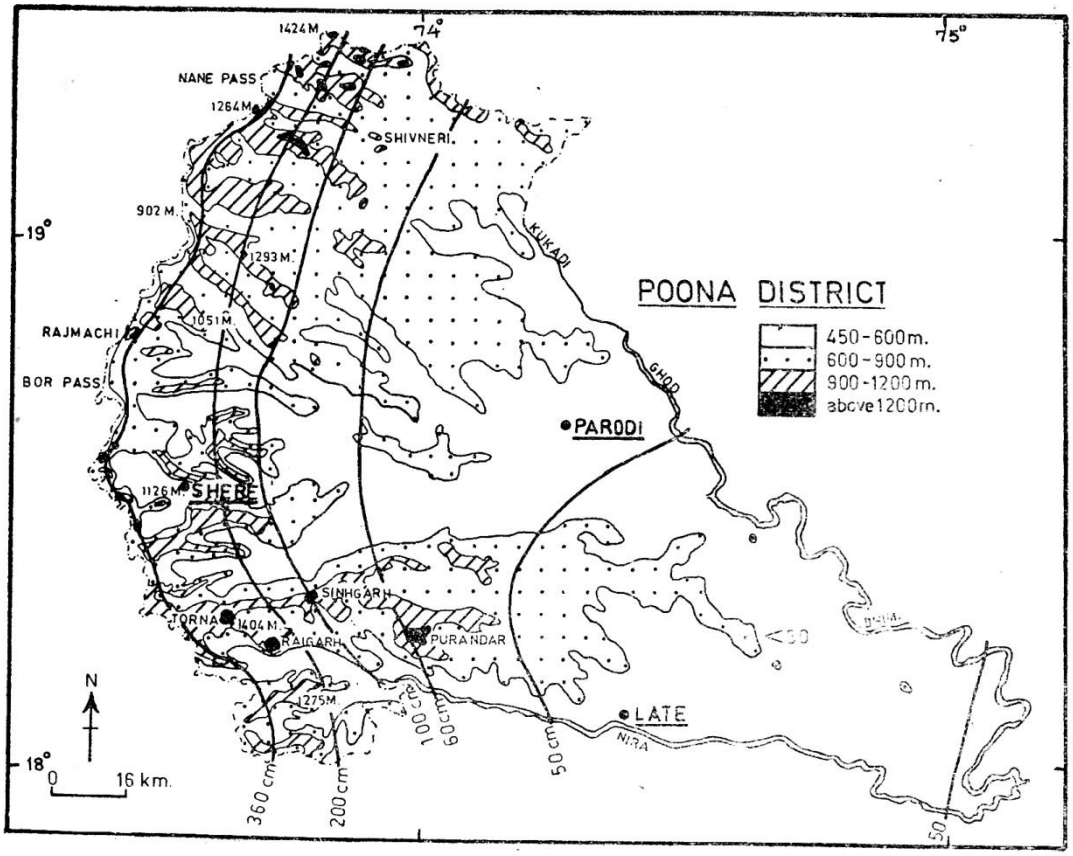
In the rural areas, land is the principal source of income, and inequalities in agriculture basically stem from the inequality in the distribution of land holdings. If the size of a single landholding is more than what one farmer can efficiently manage, land is not fully utilized because of lack of sufficient labour and if it amounts to less than a critical limit, labour is not fully employed because of lack of sufficient land (Charansingh 1977). Of course, the size of efficient land unit is relative and may vary according to the fertility of the soil, methods of cultivation, nature of crops and other physico-socio-economic factors. Thus, one who attempts to explain the variation in the agricultural patterns at the micro-level has to account for the influence of the size of landholdings, the process of fragmentation and their interrelationships, *in* order to examine the above relationships, Poona district has been chosen as a laboratory, as the district displays a variety of physico-socio-economic characteristics. An attempt has been made here to analyse the structure of land holdings in relation to the above mentioned physico-socio-econrnic characteristics. An initial hypothesis is formulated that the size of land holding and the amount of fragmentation varies with the environmental and socio-economic conditions. To test this hypothesis the district was divided into physiographic regions, and three villages representing (i) a heavy rainfall area with rugged, hilly

Table I

1971	Shere	Parodi	Late
	(Hill-village)	(Unirrigated)	(Irrigated)
Total Population	761	576	2372
Total Agricultural	151	302	*111*
workers (A. W.)			
Cultivators (% of A. W.)	80.13	94.70	46.20
Agri. Labourers (% of A. W.)	11.92	5.30	51.09

topography-Shere (ii) a semi arid or drought prone region-Parodi and (iii) an irrigated tract in the river valley, Late, were selected for microievel analysis (Fig. 1).

Data regarding the occupational structure, general landuse, agricultural landuse, size of Saod holdings, number of land holders, and the number of fragments were collected during field trips to the selected villages. A questionaire was also prepared and personal interviews with the farmers conducted so as to estimate the economic potential of a farmer. For convenience sake the landholders, holdings and the fragements were classified in to five size categories namely, 0-1, 1-3, 3-5, 5-10 and above 10 acres. Finally, the position of the scheduled castes in the agricultural economy of the village is also studied separately. This will enable one to assess the condition of this socially and



economically deprived section of the society vis-a-vis the possession of productive assets.

Background of the villages

Shere is located about 32 km. west of Poona. This area receives very high rainfall (over2 00 cm) and is characterised by rugged relief. In contrast, Parodi is located 50 km in the north-east of Poona, in a drier region, receiving about 50 cm of rainfall. Late, though located in the drier eastern part of the district, (90km from Poona, rain fall about 50cm.)is an irrigated village, in the Nira valley.

Thus, the physico-socio-economic set up of these three villages is different. This is clearly reflected in the occupational structure, landuse, and land holdings (Table I).

Agriculture is the only important occupation in all the three villages, accounting for over 90 per cent of the total workers. Among the agricultural workers, the proportion of cultivators is very high in Shere and Parodi. But in Late, the irrigated village, the proportion of agricultural labourers is higher than the cultivators. The higher agricultural productivity in an irrigated village leads to a higher demand for agricultural labour, which is reflected in the case of Late. In contrast, in the other two villages, agriculture being of a subsistence nature the proportion of owner cultivators is large, there being limited scope for hired farm labour.

General landuse.

Proportion of the total area under different categories of landuse, namely gross cropped area, forest, grass, culturable waste, area not available for cultivation, and fallow in the three villages is compared (Table II) to bring out the influence of physiography in the basic nature of land-use. It is observed that the rugged topography, the nature of slopes and soil cover have been responsible for the variations in the area strength of different landuse categories. In Shere, adverse topographical conditions are responsible for a lower proportion of gross cropped area. In contrast, the extensive flat lands and gently sloping areas in Parodi and Late explain the very high proportion

Table II

General landuse

Proportion of the total area (per cent) (1974-75)

1	Shere 2	Parodi 3	Late 4
Gross cropped area	22.67	87.74	99.90
Forest	1.89	4.82	4.9
Grass	57.35	0.52	__
Culturable waste	—	0.89	2.13
Not available for cultivation	18.09	2.51	3.93
Fallow	—	3.52	—

of gross cropped area in those villages. In case of Late, this gross cropped area is even further inflated by the availability of irrigation. Late has about 20 per cent of its cultivated area sown more than once in a year.Grass covers a very large area in the southern half of Sbere. The hill slopes with a thin soil cover, and areas not suitable for cultivation are given over to grass. In Parodi and Late grass is insignificant as almost all the area is suitable for cultivation of crops. Proportion of area not available for cultivation is also significant in Shere. This is again due to the rugged nature of the topography.

Agricultural landuse

Cropping pattern in the study areas is, further influenced by the climatic conditions, soil characteristics and irrigation. Examination of the areal strength of crops in the three villages gives us some idea regarding the dominant factors which influence the choice of crops in a village. (Table III)

It is expected that in an area receiving over 200 cm of rain fall rice should dominate the cropping pattern. In Shere, rice is followed by nagli a hill millet. Generally better agricultural lands are given to rice and inferior lands are under nagli. In Parodi, the crop pattern changes considerably due to scanty raintall. Jowar is the most important crop grown in the rabi season, followed by bajra a second rank crop -grown in the Kharif season. As both jowar and bajra are drought resisting crops they are selected in preference to other food crops. Pulses which are grown alongwith jowar or bajra also are a really important. Cropping pattern of Late has largely been influenced by the availability of water. Though this village also receives scanty rainfall like Parodi, the climatic constraint is modified as water is made available through sources iike canal, river, well and lift irrigation. A diversified cropping pattern with cash crops like sugarcane, vegetables and fruits, cotton, and oilseeds, occupy a sizable area. Rice in the kharif, and wheat in the rabi season are also attempted only with the help of irrigation. In contrast, at Parodi and Shere, one finds the patrern of cropping either of monoculture or two crop combination. This reveals clearly, the strict control of the climatic factors.

Land holdings

In order to understand the structure of land holdings resulting from interaction between physico-socio-economic elements and its impact on the agricuitural patterns, data for the total land holders, size of landholding, location of the holdings, and number of fragments were collected,

Table HI

Agricultural Janduse Per Cent Of G, C. A., Under Different Crops (1974-75)

Crops	Shere	Parodi	Late
Jowar Rabi	__	53.79	26.29
Jowar Kharif	-	26.89	16.26
Bajra	-	_	3.70
Rice	74.40	-	3.31
Nagli	17.26	-	_
Wheat	2.98	0.45	17.14
Sugarcane	-	-	13.83
Vegetables And Fruits	0.60	4.61	8.76
Cotton	-	_	4.30
Groundnut Or Other Oilseeds	2.68	-	8.00
Karala	-	6.09	__
Tur	-	1.63	„_
Gram	-	2.08	__
Mung	-	1.78	—
Hulaga	-	1.78	—
Math And Matki	-	2.53	__
Other Pulses	1.79	7.73	-

Compiled And Analysed. It Is Generally Understood That A Small Farmer Is A Farmer Holding Less Than Five Acres Of Land-A Medium Farmer Holds Between Five To Ten Acres Of Land And A Big Farmer Is One Who Owns More Than Ten Acres Of Land. The Authors Are Aware That These Categories, Infact, Are Broad Generalizations, But For Matter Of Convenience, These Classes Were Adopted With Three Sub-Divisions In The First Category, Viz. Size Classes Of 0-1, 1-3 And 3-5 Acres The Average Size Of The Holdings In The District Was 9.98 Acres In 1970-71 (Maharashtra 10. 57 Acres). In Comparison With The District And State Averages, Average Size Of Holdings In Shere, Parodi And Late Are 6.82 Acreas, 14.38 Acres And 3.91 Acres Respectively. Only Parodi Has An Average Land Holding Size Which Exceeds Both The District And State Average Figures. This Is A Normal Tendency In All Dry Villages.The Number Of Small Holders (0-5 Acres) Was Appreciable In The District. Though 46 Per Cent Of The Total Holders Were Small Holders, They Operated Only 10 Per Cent Of The Total Area. For Maharashtra, The Figures Are 43 Per Cent And 9 Per Cent Respectively. The Analysis At Microlevel Yields Some Interesting Results (Table IV). In Shere, 16.90 Per Cent Of The Total Area Is Cultivated By 61 Per Cent Of The Holders. In Parodi, 5.69 Per Cent Area Is Operated By 36.54 Per Cent Of Holders, And In Late 46.43 Percent Area Is Cultivated By 78.31 Percent Holders. In Contrast, Only 20.72 Per Cent Holders Own 64.29 Per Cent Area In Shere. In Shere Like The Rest Of The Maval Villages The Proportion Of Culturable Waste Is Very High In The Case Of Larger Size Holdings. The Figures For Rarodi And Late Also Reveal Similar Trends.

Table IV

Percentage of Area under Different Categories Of Land Holdings

Size Classes In Acres	0-1	1-3	3-5	0-5	5-10 Above 10	
Shere	1.13	8.43	7.34	16.90	18.81	64. 9
	(4.96)	(22.75)	(20.97)	(48.68)	(28.40)	(23.61)
Parodi	0.32	1.68	3.69	5.69	8.34	86.00
	(-)	(-)	(7-64)	(7.64)	(10.34)	82.02)
Late	2.37	17.23	26.83	46.43	27.68	25.89
	(3.23)	(40.01)	(24.98)	(68.21)	(31.79)	(-)

Percentage of Land Holders In Different Categories Of Landholdings Size Classes

In Acres	0-1	1-3	3-5	0-5	5-10	Above 10
Shere	15.32	32.43	13.51	61.26	18.02	20.72
Parodi	(20.83) 9.62	(45.84) 13.46	(16.67) 13.46	(83.31) 36.54	(12.50) 17.31	(4.17) 46.15
Late	14.80 (-)	35.71	(25.00) 27.80	(25.00) 78.31	(25.00) 15.65	(50.00) 6.41
	(11.54)	(53.85)	(19.23)	(84.62)	(15.38)	(-)

Source : Gram Panchayat Samitis Office. Figures In Bracket Are For Scheduled Castes.

Table V

Average **Size of Fragments In Different Landholding Classes** (Acres)

	0-1	1-3	3-5	0-5	5-10	Above 10
Shere	0.29	0.79	1.01	0.76	0.92	1.72
Parodi	(0.31) 0.35	(0.50) 0.84	(0.98) 2.12	(0.59) 1.21	(0.73) 1.98	(0.72) 4.54
Late	(-) 0.57	(-) 1.53	(3.70) 2.67	(3.70) 1.83	(2.50) 4.27	(6.63) 7.36
	(0.85)	(1.26)	(3.19)	(1.58)	(4.05)	(-)

Percentage of Total Fragments In Different Landholding Classes

	0-1	1-3	3-5	0-5	5-10	Above 10 Aore
Shere	4.94	13.83	0.05	27.82	25.43	46.75
	(11.46)	(37.50)	(17.71)	(66.67)	(32.29)	(1.04)
Poradi	3.37	7.21	6.25	2683	15.14	68.03
`	(-)	(-)	(11.11)	(11.11)	(22.22)	(66.67)
Late	11.76	31.74	28.31	71,31	18.26	9.93
	(7.69)	(61.54)	(15.32)	(84.61)	(15.38)	(-)

Source : Gram Panchayat Samitis Office Record. Figures In Bracket Are For Scheduled Castes

In Shere And Parodi, The Proportion Of Area Increases From Lower Categories To Higher Categories Of Land Holdings, Except For The 5-10 Acre Care Category. A Similar Overall Pattern Is Observed For Porodi, But The Difference Lies In The Proportion Of Area In Categories, 0-5, And 10 And Above, Which Is Spectacular. Late Has A Very Small Area In The 0-1 Class, But In All Other Classes The Distribution Is More Or Less Equitable.The Problem Of Fragmentation Has Been Recognised Long Back. As The Farmers Total Holdings Are In May Instances Divided Into Several Pieces Far Apart From One Another, Efficient Cultivation Of Al! These Pieces Is Always A Problem. Inspection Of Table V Brings Out Clearly The Extent To Which Fragmentation Has Occurred In Different Physico-Socio-Economic Areas. In All The Three Villages, The Size Of Fragments Increases With The Increase In The Size Of Holdings, Though The Rate Of Increase Varies Considerably. The Number Of Fragments, It Is Also Observed, Increases With The Larger Sizes Of Holdings In Shere And Parodi. But In Late, An Exactly Opposite Trend Is Observed. The Number Of Fragments Is More In The Case Of Small Holdings, And Less In Case Of Larger Holdings.The Size Of Fragments And The Number Of Fragments In Different Classes Of Holdings Reflect The Influence Of (I) Nature Of The Terrain (Ii) Productivity Of The Land And (Iii) Choice Of Crops To Be Grown. As Paddy Is Generally Grown In Small Fields, The Size Of The Individual Fragment Tends To Be Relatiyely Small In Shere. Parodi, Lying In A Scarcity Area, The Carrying Capacity Of The Land Is Also Small. This Acts As A Deterrent To Fragmentation Into Smaller Units, And Results In A Pattern Of Relatively Higher Size Of Holding As Well As Fragments. In Late, The Average Size Of Fragments Is Still Higher Due To The Commencialization Of Agriculture. In Late, The Process Of Commercialznatoin Of Agriculture Has Proceeded Far Enough To Generate A Breed Of Prosperous Farmers,, Hungry For Land. Here, Even A Slight Increase In The Size Of The Holding, Can Bring About Substantial Gains From Agriculture Particularly In The Context Of The Capital Intensive System Of Agriculture Prevailing In These Parts. This Perhaps Helps To Account For Both

The Larger Size Of Holding As Well As Greater Size Of The Fragments. Structure of Land Holdings For Scheduled Castes

Besides Studying The Overall Structure Of Land Holdings And Their Pattern Of Fragmentation The Authors Were Interested In Examining These Same Aspects For The Scheduled Castes Who Constitute The Socially And Economically Weaker Sections.Among The Scheduled Castes In Maharashtra The Mahars, Mangs And Chambhars Are Numerically The Most Important, Accounting For Over 98 Per Cent Of The Total Scheduled Castes. The Mangs As A Community Do Not Own Any Sand. Whereas Among The Mahars And Chambhars There Is A Tendeny To Lease Out Their Lands On A Share Cropper Basis To The Other Cultivating Castes.For Parodi, The Area Uuder Different Classes Of Laud Holdings Is Nearly The Same For Both, The Scheduled Castes And Non - Scheduid Castes. In The Case Of Shere Though The Trend Is Similar, An Increase In Area With Increase In Size Classes, The Porporation Of Area Held By The Scheduled Castes, In The Last Four Classes Is Much Higher As Compared To The Non-Scheduledc Astes. The Last Category Also Shows Remarkable Difference With 21 Per Cent For Scheduled Castes As Against 64 Per Cent For The Non Scheduled Castes. This Is Because It Is Only The Large Farmers Who Own Considerable Amount Of Area Under Grass In Shere, And The Scheduled Castes Being The Small Holders (83 Per Cent Below 5 Acres), Do Not Have Much Area In This Category Above 10 Acres. In Late Also A Similar Pattern Is Observed, With Not A Single Scheduled Caste Holder Owning Land Over 10 Acres.

Striking Contrasts In The Number Of Fragments For Scheduled Caste Holdings And Non Scheduled Castes Holdings Are Observed For Shere. Fragmention Is Maximum (66.67 Per Cent) In The Case Of Small Schduled Caste Holders. In Contrast, It Is Only 27.82 Per Cent For Non Scheduled Caste Small Holders, In Parodi And Late The Pattern Is Similar !Or Both The Communities.The Size Of Fragment In Almost All Cases For All The Three Villages Is More For The Scheduled Caste Holders. This Analogous Pattern For The Economically Weaker Sections Of The Society Which Is Either Land Less Or Owns Only A Marginal Holding Could Be Explained More Lucidly With The Help Of The Cultural Factor Operating In The Area. The Scheduled Castes' Attachment To Their Land Is Not As Strong As The Higher Castes Who Till Their Own Lands, Whereas The Scheduled Castes Normally Give Away Their Lands To The Other Cultivating Castes, In Perference To Assured Wages Or A Job In The City. Another Reason Could Be That Land Ownership Among The Higher Castes Is Generally Associated With Social Prestige. Hence They Would Perfer To Cling On To The Small Fiagment From Their Inheritance Rather Than Face The Prospect Of Being Turned Into A Land Less Gentry, Which Would Not Only Mean Social Degradation But Also A Loss Of One's Roots In The Context Of The Rural Indian Society.

Patterns Of Agricultural Practices Here An Attempt Is Made To Examine The Relationships Between The Size Of Landholding On The One Hand And The Type Of Implements Used By The Farmers, Nature Of Inputs, His Attitude Towards Application Of New Techniques, And Methods And The Farmers Problems And Requirements On The Other. For This Analysis, Information Was Collected From Personal Interviews With The Farmers Belonging To Different Classes Of Landholdings In Ihe Above Three Villages. As All Holders Below 5 Acres In Shere Are Economically Too Weak To Own All The Implements Needed For Agricultural Operations, The Usual Practice Is To Share Many Of These Implements Among Three Or Four Farmers. In Parodi Also, The Small Holders Possess Sometimes A Harrow Or A Planker, And Some Small Implements. But In Both, Shere And Parodi, Some Medium Farmers (5-10) And All Big Farmers (Above 10 Acres) Possess All The Nacessary Implements, Including A Bullock Cart. In Addition To This Farmers In Parodi Make Use Of Oil Engines And One Farmer Even Owns A Tractor. Not Only In Shere, But Also In The Area Around 10 Km From Shere, No One Owns A Tractor. This Is Mostly Attributed To The Size Of Paddy Field And The Nature Of Terrian. In Late, Even A Small Farmer In Majority Of The Cases Owns A Plough And Seed Drill, With At Least One At Two Bullocks, And A Cart And Keeps One Or Two Cows, Or Buffaloes, Sheep And Some Poultry Birds. Oil Engines Or Electric Pumps, Tractors And Other Farm Machinery Are Used Mostly By Big Farmers (Above 10 Acres). In All The Three Villages, Small Farmers Rarely Employ Labour Outside Their Family, But The Medium Farmers Employ Seasonal Labour, Whereas Some Big Farmers In Late Require Permanent Labour, A Feature Rarely Observed In Shere Or Parodi. Farmers In All Ciassess(With Few

Exceptions) In Shere Are Conservative In Their Attitudes Towards The Adoption Of New Techniqutes, Use Of Chemical Fertilizers And Improved Seeds. Experiments In The Recent Past Being Unsuccessful, Most Of The Farmers Rarely Use Improved Varieties Of Rice. Though Occasionally Some Farmers Were Using Chemical Fertilizers Like Urea And Supper Phosphate, Farm Yard Manure Is Prefered By All. In Parodi Also Farmers Use Farmyard Manure In Place Of Fertilizers. They Practice Crop Rotation As A Technique Of Dry Farming. In Contrast To The Above, Farmers In The Irrigated Village Late, Are More Progressive In Their Outlook. Even A Small Farmer With Irrigated Land Uses Hybrid Varieties Of Jowar And Improved Varieties Of Cotton And Wheat. At The Same Time They Also Use Chemical Fertilizers And Pesticides, The Quantity Depending Upon The Economic Strength Of The Farmer.In Shere Normally The Farmers Are Assured Of At Least One Kharif Crop Due To Heavy Rainfall. But Water Is The Crying Need In Parodi. Located In Drought Prone Areas, The Farmers Harvest Only One Good Crop In Five Years. Many A Time When The Rains Fail, The Grain Crop Has To Be Used As Fodder For Cattle. In The Drought Years, Even The Big Unirrigtead Farmers Perforce Have To Work As Labourers Elsewhere. The Small Holders Have To Work As Agricultural Labourers Even In The Normal Years, The Low Crop Yield Per Unit Area Being Too Low To Support The Farmers Family For The Whole Year. So Many Small Farmers Place Jobs Ast Heir Second Priority, Besides Water. Capitalis The Third Priority, Needed Badly, More So, After A Scarcity Year To Rehabilitate The Farmers. The Small Farmers In Late Place Capital As Their First Priorty. Though Located In The Drier Areas, Due To Irrigation, Water Is Not A Problem As In The Case Of Parodi. The Farmers Require Capital To Reinvest In The Land In The Form Of Inputs. Even Small Farmers In Late Make Demand For An Efficient Distribution System Improved Seeds Fertilizers And Pesticides As Their Timely Distribution And Availability Can Influence The Crop Yield Considerably, Lastly, Agricultural Productivity Is Also Related To The Size Of Land Holdings, Along With Other Factors. Inputs In Land Vary Considerbaly, According To The Size Of Holdings, Which Reflect The Economic Strength Of The Farmer And Therefore The Outputs Also Vary. The Yield Of Rice, A Major Crop In Shere, Varies From 8 Quintals/Acre In The Case Of A Small Holder With Less Inputs To 11 Quintals/Acre In The Case Of A Big Farmer, With Larger In Puts. In Parodi, The Yields Are Low In All Cases. Average Yields For Bajra Vary Between 4 To 5 Quintals/Acre And For Jowar 4 Quintals/Acre. Irrigation Being An Important Factor Affecting The Productivity, It Has A Rele Invance The Contex Of The Size Productivity Relationship (Dhongade 1978). In Late, Depending Upon The Nature Of Inputs, The Yields For Selected Crops Vary Significantly, E. G. For Sugarcane 70 To 90 Tons/Acre, Wheat 8 To 11 Quintals/Acre, Cotton 8 To 13 Quintals/Acre And Jowar 8.5 To 12 Quntals/Acre.

Agricultural Practices Of Scheduled Caste Farmers

The Picture For The Scheduled Castes Farmers, Unlike The Other Cultivating Castes Is Not Clearly Reflected In Either The Size Or Nature Of Their Land Holdings. The Reason Being That A Great Majority Of Them Are Either Landless Or Marginal (Less Than 1 Hectare) Holders. Even Among Those Who Own Land, Few Cultivateit By Themselves. The Normal Practise Being That Of Giving It Out On Lease For A 50 Per Sent Share Of The Produce. Nearly All Scheduled Castes Share The Same Basic Constraint, A Lack Of Necessary Infra-Tructure (Bullocks, Plough, Capital Etc.) For Operating Their Farms, And Under These Circumstances, They Find It More Practical To Lease Them Out For Some Returns, However Meagre. The Main Disadvantage In Such A System Is That They Are Not Only Deprived Of Their Legitimate Share Of The Produce, But They Are Totally Dependent On And At The Mercy Of The Cultivating Castes For Their Mere Subsistence. This Only Helps To Further Perpetuate Their Condition Of Social And Economic Deprivation. Apart From The Economic Constraints, The Authors Impressions Are That The Cultural Factor Is Also Potent In Explaining Their Aversion To Cultivation. Though Traditionally The Scheduled Castes Have Provided Services And Farm Labour For The Agriculturist, Being A Part And Parcel Of The Agricultural System They Lack Tradition, Skill And Capacity For Carrying Oat The Various Farm Operations, Which Are Not Only Continuous, But Also Require Sustanied Effort.

From The Micro-Level Analysis Of The Nature Of Involvement Of The Scheduled Castes Minute Differences Within A Generalized Model Of Farm Operation For The Them Could Be Discerned. In All The Three Villages, Only Late Has 43 Out Of The 44 Scheduled Caste Families

Owning Land. Yet, Fewer Than A Quarter, Cultivate Their Own Lands, As Most Of Them Prefer To Lease Them Out To Others, While They Themselves Work As Agricultural Labourers For Daily Wages, Sometimes Even On Their Own Piece Of Land. In Parodi And Shere, The Situation Is Slightly Different, Only Fifty Per Cent Of The Scheduled Castes Are Land Owners, And Nearly All Of Them Due To The Precarious Nature Of Agriculture In These Parts, Work Either As Agricultural Labourers Or Manials. Only Shere In The Sample Villages Has The Unique Distinction Of Having Atleast One Member From Each Scheduled Caste Household Being Employed In The Bombay Municiple Corporation. In All The Three Villages, Marsgs Neither Own Any Land Nor Are Employed Outside Agriculture. They Are The Only Scheduled Castes Who To Some Extent, Still Continue To Work As Balutedars. For The Rest Of The Scheduled Castes, There Are More Instances Among The Cbambars Of Cultivating Their Own Lands. As For The Mahars, Nearly All Of Them Lease Out Their Lands On Share Cropping Basis.Furthr Constraints Are Imposed By Lack Of Capital, Necessary Implements And The Marginal Nature Of Their Holdings. The Practise Of Leasing Out Their Lands And Not Cultivatiag Them Personally Has Further Weakened Their Association With The Productive Aspects Of The Agricultural Economy. This Is Reflected In Their Total Unconcern And Ignorance About Matters Like Inputs-Outs For Farmings Operations. Even Their Lack Of Perception About The Advantages Of Cultivating Their Lands Themselves, Instead Of Leasing Them Out To Others, Can Be Attributed To This Lack Of Persona! Experience And Involvement In Land Exploitation. Thus Under The Present Pattern Of Land Exploitation, It Is Rather Difficult To Assess The Economic Potential From Farming For The Scheduled Castes. This Becomes Further Hazy When One Of Takes Into Account That It Is Only Partly Related, To The Structure Of Their Land Ownship, Bearing In Mind The Practise Of Farm Exploitation. Since The Lands Owned By The Scheduled Castes In Many Instances Are Of Good Quality, Greater Promise Lies In Pooling Their Lands Together And Operating Them On A Cooperative Basis. They Would Not Only Receive Better Returns By Making Them Operationally More Viable (From The Present Subistence Level), But It Could Also Remove The Economic Constraint Which They Face Individually.

Conclusion

A Vivid Picture Of The Areal Differences In The Pattern Of Land Holdings And The Practise Of Agriculture Have Emerged In The Case Of The Three Villages Under Study. The Structure Of Land Ownership Along With The Other Physics-Socio-Economic Factors Are Important Considerations, Which Exert Considerable Influence On The Choice Farmer Makes For The Crops He Grows And The Manner In Which He Exploits His Farm. In The Analysis It Was Revealed That The Combination Of Crops And Livestock, The Type Of Farming And Allocation Of Resources, All Depend On Two Major Factors, The Amount Of Land At The Farmers Disposal And The Facility For Irrigation. The Constraints Imposed By The Physico-Climatic Factors Seem To Pale Into Insignificance With The Availability Of Water, (As Is Seen In The Case Of Late) And The Pattern Of Land Utilisation No Longer Reflects The Otherwise Sever Limitations Imposed By The Natural Factors. The Problems Of The Scheduled Castes Are Even More Complex As They Own Even Fewer Productive Resources, Which They Do Not Themselves Exploit. Therefore, For Making Rural Development More Viable, A Major Change In The Structure Of Landowner-Ship And The Method Of Exploitation Are Necessary.

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Contemplation of globalization in Shashi Tharoor's novel 'The Great Indian Novel'.

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Abstract:-

Globalization is a process that economically involves services, goods, technology, data, and resources from economical capital. It is an activity influence and affected by work organization, business, socio-cultural resources economics, and academic literature, and the natural environment. Globalization is an activity of interaction and integration among companies, government, and people This confluent promotes in same cases of necessitates expanded integration, Interaction among countries policies of globalization encourage international cooperation, open trades, and free trade all drive economic globalization. The globalization concept is seen in Shashi Tharoor's novel 'The Grate Indian Novel'.

Keywords: - globalization, Integration, Interaction, Development.

Introduction:

Globalization is a process of integration and interaction among companies, governments, and people. It is a word used to describe the increase of the world's cultural economics and populations. The Cross order trade brought about services and goods, technology people, information. Nevertheless, diplomacy and disputes are also parts of the history of globalization that has expanded since the 18th century due to advances in communication technology and transportation. The effect of wide-ranging globalization is politically charged and complex as with considerable major technological advances as a whole globalization benefits society. From ancient times human being has sought a distant place to produce, settle and exchange commodities enabled by improvement in transportation and technology.Globalization economically involves services, goods technology, data, and the resources from economic capital. The growth of the global market deregulates the economic activities of the interchange the funds and goods. The formation of the global market more feasible by removing barriers of cross border trade promotes in transportation like the steamship, jet engine, container ships, and steam locomotive and advances in telecommunication infrastructure like internet, mobile phone and telegraph have been a vital factor in globalization have brought about further interdependence of cultural and economic activities around the world. Some scholar traces the history of globalization long before the voyage to the new world and European age of discovery another place the birth of globalization in modern times and even some to the third millennium BCE. The globalization term was first seen in the early 20th century to supersede the French earlier term medicalization in 1820 large-scale globalization began and rapid expansion in the connectivity of the world cultures and economics drove in the late 19th century and 20th century. In 2000, the Internation Monetary Fund (IMF) recognize four fundamental aspects of globalization investment trade capital and transaction, migration and movement of people dissemination of knowledge, globalization activity influence and are affected by work organization, business, socio-cultural resources, economics, academic literature, and the natural environment commonly divides globalization into three major areas: political globalization, cultural globalization economic globalization .it is an activity by which knowledge, idea, services, goods information spread around the globe. The term globalization is used in an economic context in business globalization is the intersection of the economic and cultural systems known as some other part of the world. This confluent promote in some cases necessitates expanded integration, interaction, and interdependence among countries.

Policies of globalization encourage international cooperation, open borders, and free trade all drive economic globalization. They allow businesses to ingress lower price raw materials and part take benefits of lower-cost labor markets access growing and larger markets around the globe in which to put up for sale their services and goods. Products, money information, material, and people flow more easily across the country's boundaries today than ever .progress in technology accelerated and enable this flow, and the generating international interaction and dependencies especially this technological progress have been pronounced in telecommunication and transportation.The question

arises ‘why globalization is important’ globalization changes the way business, people and nations interact. It interchanges the expanded trade, the nature of the economic activity, providing access to natural resources, labor markets, and opening global supply chains. Changing the financial exchange and the way trade and interaction happened among nations also encourages the interchange of ideas. It abolishes the barriers set by political boundaries, political economics, and geographic constraints. Globe, for example, allows one nation to access another country’s resources globalization has flowed and ebbed thought history with a period of retrenchment and expansion. The 21st century has looker-on both global stock markets plunged after 11 Sept. 2001. rebounded in the subsequent years after terrorist attacks in the United States. Recently, nationalist political movements have decelerated immigration, increased trade protectionism, and closed borders. The pandemic covid-19 situation has had an equal effect on immigration and borders and also interrupt the supply chain. There is a dramatic increase in the pace of global integration seen in the 21st century rapid progress in telecommunication and technology are accountable for much of this change.

Types of Globalisation: cultural, political, and Economical.

1. Cultural Globalisation: This aspect of globalization refers to the interchange of values, ideas, and meanings around the world as a way to intensify and extend social relations.
2. Political Globalisation: This kind occupies the national policies that bring nations together economically, culturally, and politically. Organizations such as the UN and NATO are part of political globalization attempts.
3. Economic Globalisation: In economic globalization, the focus is on the coordination of the financial market. Examples of economic globalization such as the Trans-Pacific Partnership and the North American free trade. Multinational corporations which controlled two or more countries play a big role in economic globalization.

These kinds influence each other political policies to affect cultural globalization national trade policies operate economic globalization. These include growth ease of communication access to better and faster transportation and the prevalence of social media. Effect of globalization can be perceive globally and locally touching the border society and touching the lives of individuals

Globalization in Literature:

In the article ‘Neoliberalism and Higher Education’ Stanley fish convey the term ‘neoliberalism has become an important theoretical notion in academic especially in globalization studies and social sciences to discuss political, cultural, social progress of our times. This term is in literary studies is applied to explain the literature of post globalized world. It is economic and political philosophy associate with the activity of globalization of the free market and economic liberalization. This term is used to analysis of cultural and literary texts the concept of neoliberalism is more suitable in explaining the economic and political policies of the participating globalizing nation. The term ‘post-liberalization ‘indicates major economic and political policies of towards increased foreign investment, free trade, open market, and neoliberalism were executed in1991 by Finance minister Man Mohan Singh. These economic policies marked officially the transformation of India’s political and economic system from a proto-socialist model invent by Nehru to a model that more eminently leans towards many capitalistic policies. If not a total transformation to capitalism. The novel like Arvind Adiga’s ‘The White Tiger’ and Q and A by Vikas Swarup depicted protagonists from marginalized socio-economically sections. Who rises up to enormous financial success in the new India indicating globalization as one emancipatory power conversely the novel ‘Sacred Games by Vikram Chandra and ‘The Story of My Assassins ‘portray the stories of protagonists from the underbelly of neoliberal city and criminalization in the process of current urbanization and their resulting dispossession another novel, namely Amitav Ghosh’s ‘The Hungry Tide’ and Indra Sinha’s ‘Animal’s people’ brings up the critical discussion about environment in the context of globalization.

Globalization in the ‘The Great Indian Novel’:

Contemporary post-colonial literature express ’values, ideas, and emotion formally ignored, suppressed, or dent grated by, and of course in the well-known metropolitan centres. Literature played a pivotal role in the re-instalment of native idioms and in the re-managing and re-figuring of local histories, communities, geographic. Shashi Tharoor is a prolific writer in post-modern India. He is a well-known author, former international Diplomat. He is a popular figure known as a writer with amazing hits on his credit. He wrote on history, culture, society, and politics. His book articulates

insight into position in modern society. Shashi Tharoor in his first novel 'The Great Indian Novel', he reinvented epic which was 2000 year old from the British day to present, 'The Mahabharata', as a retelling of the story of 20th century India: most developing countries are formally colonized nations. The novel begins with the argument that India is not as people calling it undeveloped country but preferably in the context of cultural heritage and history, a thoroughly developed one in an advanced state of decay with sentiment is the privilege but as a novelist, he believes with Moliere that he has to entertain in order to edify. His responsibility to present the Indian in a globalized world to contribute toward and to help give expression to and articulate, the cultural identity9variegated, shifting, and multiple, in the Indian case) the writer has to revive the old one and express his culture and find a new way of becoming an of the post-colonial society caught up in the throes of globalization. The huge majority of developing nations have come out recently from the incubus of colonialism both globalization and colonialism have in many ways distorted and fractured their cultural self-perception. The development will not happen without a substantiate of identity that this is who we are, we proud on it, what we want. In this process development and culture are basically linked and interdependent. In the midst of globalization, the writer has to revive the old ones and express his culture and find a new way of becoming and being.

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Gender Equality and Human Rights

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Abstract:

Gender Equality is not only a fundamental human right, but a necessary foundation for a peaceful prosperous and sustainable world. Gender equality is when people of all genders love equal rights, responsibilities and opportunities. Gender is the range of characteristics pertaining to and differentiating between feminity and masculinity. Gender is a central characteristic for social organization. Gender equality also called gender egalitarianism, sex equality, or sexual equality. Globally, more women than men live in poverty. Gender equality might mean that women and men should be treated equality or differently. There should b e economic, political, laws, social, cultural, democratic equality for the women.

Keyword: Gender, equality, rights, men, women, human.

Gender Equality and Human Rights

Introduction :

Gender equality might mean that women and men should be treated equally or differently equal. It may **implant** that women and men should be paid the same for doing the same work or that they should be treated with different medicines and methods in order to make healthcare equal. Gender equality also called gender egalitarianism, sex equality, or sexual equality. Gender equality addresses the tendency to ascribe in various setting across societies different roles and status to individuals on the basis of gender. Gender is the range of characteristics pertaining to and differentiating between feminity and masculinity. Depending on the context this may include sex based social structures i.e. gender roles and gender identity. Gender identity refers to personal identification with a particular gender and gender role in society. Thereon women has historically been used interchangeably with reference to the female body through more recently this usage has been viewed as controversial by some feminists.

What is Gender Equality?

Gender Equality is when people of all gender have equal right, responsibilities and opportunities. Gender equality prevents violence against women and girls. It is essential for economic prosperity. Societies that value women and men as equal are safer and healthier. Gender equality is a human right. Gender is defined as the socially constructed roles and behaviours that society typically associates with male and females. An example of gender is referring to someone who wears a dress as a female. One's identity as female or male or as neither entirely female or entirely male. Gender equality also known as sexual equality of the sexes, is the state of equal ease of access to resource and opportunities regardless of gender, including economic participation and decision making; and state of valuing different behaviours, aspirations and needs equally, regardless of gender.

What is Equality?

Equality is quite simply defined as two or more things being to equal state, appearance or value. As a concept or theory, this seems rather straight forward and easy t o understand. But when the idea of equality is applied to people, the concept becomes much stricker. Equality is about ensuring that every individual has an equal opportunity to make the most of their lives and talents. Equality recognizes that historically certain groups of people with protected characteristics such as race, disability sex and sexual orientation have experienced discrimination. Equality means unwavering and effortless respect for people regardless of their place in the world. Whether man, women or child, equality is when any and all physical, mental, social, religious, political, educational professional differences are embraced. Equality could be valued intrinsically, in virtue of its own independent value. The natural equality is so important for the humans. It implies that all men are born free and equal and are endowed with equal gifts and talents. There are various types of equality that is natural, social, civil, political, economic, legal, equality of opportunity and education; equality

is defined as the condition of being equal or the same in quality, measure, esteem or value. When men and women are both viewed as being just as smart and capable as each other.

Importance of Gender Equality

Gender equality is when people of all genders have equal rights, responsibilities and opportunities. Everyone is affected by gender inequality. The main factors responsible for gender inequality in India are or have been on the **footing** of education, health, castes.Most cultures use a gender binary having two genders, like boys/men and girls/women those who exist outside these groups may fall under the umbralla term non-binary some scientists have specific genders besides man and women such as the hijaras of south Asia, these are often referred to as third genders. Most scholars agree that gender is a central characteristic for social organization. In 1945, Madison Bently had defined the gender as the socialized obverse of sex. In 1949, Simone de Beauvoir, defined the gender as beginning of the distinction between sex and gender in feminist theory. The term gender is used to replace sex without representing a clear conceptual difference. The main areas of gender inequality index into three dimensions as reproductive health which is based on material morality ratio and adolescent birth rates; and empowerment that in based on proportion of parliamentary seats occupied by females and proportion of adult females aged 25 years and older with at least 60 years. Girls and boys see gender inequality in their homes and communities everyday in textbook in the media and among the adults who care them. Parents may assume unequal responsibility for household work, with mother's bearing the brunt of care giving and chores.

Types of Equality:

There are some various types of gender equalities i.e. social, political, economic, educational, laws, at job place and home. The economic empowerment of women, freedom of movement, girls access to education, political participation of women, equality in marriage, laws and regulations.

There should be equal opportunity for all in jobs, club memberships and promotions. Social equality is the belief that all people should be given equal opportunity to take advantage of aspects of society, such as jobs or membership in clubs, and no person should have an advantage over another for example, if there were four candidates to the same job, social equality dictates that the only elements that should be taken into consideration and experience and knowledge and skill level. In a perfect world this would be true; however there are countless examples of lawsuits that determined that a person was passed over for a job because of their race, gender or economic status. Political equality is the idea that all people should have access to the political process and equal opportunity to run for any political office. This is fairly self-explanatory and generally applied in democratic countries. However, while it is more realistic that other types of equality in many countries there are minimum age requirements for certain political offices, which means that it is not a truly equal process. Some issues fueling gender inequality in workplaces, unequal pay, sexual harassment, racism, women are promoted less often that men.Gender equality is the state of equal access to resources and opportunities regardless of gender. It is achieved when women and men enjoy the same rights and equally favoured. Gender equality prevents violence against women and girls. It is essential for economic prosperity. Societies that value women and men as equal are safer and healthier Gender equality is a human right.

Gender Equality and Human Right:

Human rights are the basic rights and freedom that belong to every person in the world from birth until death. They apply regardless of where you are from. What you believe or how you choose to live your life. They can never be taken away, although they can sometimes be restricted for example, if a person breaks the law, or in the interests of national security. These basic rights are based on shared values like dignity, fairness, equality, respect and independence. These values are defined and protected by law. Human rights are relevant to all of us, not just those who face repression or mistreatment.The protect you in many areas of your day to day life including. you right to have and express your own opinions, your right to an education, your right to a private and family life, your right not be mistreated or wrongly punished by the state. The human rights are the basic right and freedom that belong to every person in the world from birth until death. The preamble to the UDHR sets out the aims of the declaration, namely to contribute to freedom, justice, and peace in the world, to be achieved by universal recognition and respect for human rights. These rights are then defined in 30 articles which include civil, political, economic, social and cultural rights. The united

states values free speech as the most important human right, with the right to vote coming in third. The principles of the human rights are universal and inalienable, interdependent and indivisible, equal and non-discriminatory and both rights and obligations. Most commonly human rights are distinguished in two main categories; civil and political rights and economic, social and cultural rights. The United Nations pinpoint the origin of human rights to the year 539 BC. When the troops of Cyrus the Great conquered Babylon, Cyrus freed the slaves, declared that all people had the right to choose their own religion and established raise equality. Monsieur Rene Cassin, was French Jewish Jurist, law Professor and judge is the father of human rights. Who declared the universal Declaration of Human Rights. Human rights are rights inherent to all human beings, regardless of race, Sex, nationality, ethnicity, language, religion or any other status. Human right include the right to life and liberty, freedom from salavery and torture, freedom of opinion and expression, and many more. Everyone is entitled to these rigths without discrimination. The international human rights treaties and other instruments adopted since 1945 have expanded the body of international human right law included. The convention on the elimination of all forms of Discrimination against women in 1979.Basic human rights are declared by universal Declaration of Human Rights (UDHR) united Nations signed in paris on 10 Dec.1948. They are all human beings are free and equal, everyone is entitled to all the right and freedom without distinction of any kind, such as race, colour, sex, language, religion, political or other opinions, National and social origin, property, birth or other status. Everyone has the right to life, liberty and security of person, No one shall be held in slavery, No one shall be subjected to torture or to cruel, to arbitrary arrest, exile, all are equal before the law. Everyone has the right to freedom of thought, expressions and social security, to work, to choose the employment to rest and leisure, adopt and adequate health and property, to take education, to take part in the government policies his country. All the above human rights are legally entitled to the women of the world. Gender equality, also known as sexual equality to the sexes, is the state of equal ease of access to resources and opportunities regardless of gender, including economic participation and decision-making; and the state of valuing different behaviours, aspirations and needs equally, regardless of gender. The principle of equality forms the cave of the human rights vision of the charter, which states that human rights and fundamental freedom should be available to all human beings without discrimination on the basis race, sex, language or religion.

Conclusion:

Gender equality prevents violence against women and girls. Societies that value women and men as equal are safer and healthier. Gender equality is a human right. Gender equality is at the very heart of human rights and United Nations values. Equality and non-discrimination are fundamental principles of the United Nations Charater, Adopted by world leader in 1945. Within the context of population and development programmes, Gender equality is critical because it will enable women and men make decisions that impact more positively on their own sexual and reproductive health as well as that of their spouses and families. Gender equality prevents violence against women and girls, it is good for economy, makes our communities safer and healthier, makes our communities safer and healthier, it helps to enhance the health well-being and education of entire families, communities and countries.

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The Need of the Quality Education in the Post Covid-19 Scenario

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Abstract

This paper focuses why there is the need of the quality education after Covid-19 scenario. It also discusses how the quality education can be achieved. As we know, the quality education emphasizes holistic development, equips students with the knowledge and skills for the future, inculcates students with the right values and inspires students with a positive learning attitude. Quality education is taught or given by good teachers, enabled by good teaching and learning processes and facilitated by a conducive learning environment. Due to this Covid-19 situation, when we talk about learning and teaching, many schools, colleges and institutions have been teaching their students through online mode which has so many limitations too. Therefore, this paper through a light on solutions, ways those can be used to facilitate quality education after Covid-19 scenario, that is post lockdown period.

Key words: quality education, Covid-19, skills, teaching and learning processes, etc.

Introduction:

As you know, education is needed if anyone wanted to live in this competitive 21st century. In addition to this, it has been said and proved through various researches by the renowned researchers from the various countries that the economic growth of a nation mostly depends on the improvement in education. Therefore, it is expected that the people of our country should know at least the basic knowledge to survive in this competitive era. It has been observed and found that due to Covie-19 lockdown, as all the schools and colleges were closed and the teaching was going on through online mode. The teachers were not able to see and communicate the students personally or physically. The teachers had to communicate, check and teach and counsel through social media applications which have some limitations which affected teaching and learning process. The learners were attentive and interested in learning earlier but as time passed they focused their attention to other social media applications and the parents and the teachers were helpless for this situation as they were facing some other major problems during Covid-19. So, the quality education has been neglected unintentionally which is very dangerous for our future of the country.

What is Quality in Education?

The 21st century knowledge driven society has "Quality" as its defining element, in the same way as "Tradition' defined the ancient society, "Religion' defined society in the Middle Ages and 'Reason" was the defining element of the 19th century modern society. Defining quality on education is difficult. Like freedom and justice, quality in education can be experienced, but cannot be defined. But, instead of philosophically stating, the quality parameters have been prescribed and the institutions of higher education are rated on the basis of their performance related to the quality parameters like examination results, students' employment after graduation, reputation of the institution based on external reports and so on. Though there may be different degrees or grades in quality, broadly it could, mean that quality is the difference between the average and the excellent. It is the difference between failure and success. Ensuring that all get the same kind of education ensures equity; using the right methodology ensures quality".

Why there is need of Quality Education?

As we said earlier, the quality education is needed to survive in this modern competitive era. The growth of the individual, family, village, state and country is depended on quality education of people. In Covid-19 period, many schools and colleges conducted their exams and assessments through online mode and as a result of which most of the students got good marks. But, the questions come in the minds of many people that are these students who got more marks capable, knowledgeable? Did they possess or get good quality education? The answer to this, in most of the case, will be no. Therefore, there is urgent need to give the learners good quality education after Covid-19 scenario, after unlock.

How the quality education can be developed?

The next question, and the relevant one to be answered is, how quality education can be developed? There are many factors that have been affecting the quality education badly and the teacher and all of us need to take care and only then this quality education can be developed. The important factor is the awareness of quality education among the teacher. Not all but most of the teachers are only dealing with teaching as they receive salary. They don't bother about students. They only come, teach and go. So, the teachers should be aware of the quality education first. In addition this, the teacher should do self evaluation only then, this quality education can be developed successfully. One more thing, I would like to add to this that the teachers should be given proper training or the teacher training programmes must be organized in order to strengthen the quality education. There are many teachers who wish to use modern technology, I would say ICT in their teaching and learning process but they won't because their institution doesn't possess the facilities, equipments s for the same. It is rightly said that in every walk of our life 'attitude' matters a lot. In the same way, the positive attitude towards quality education definitely would matter a lot and only then, this can be developed. Another most important factor and that should be corrected as soon as possible hat the traditional syllabus of the education. The syllabus designers have not bothered about the relevance of the syllabus with the present time. They have been continuing with the older one. Therefore, the syllabus should be modified and should include the topics which are relevant and will surely foster the quality education. Because of the covid-19 situation, the government has got very less revenue, because of which they have not appointed permanent faculty, they have appointed contract basis faculty and this contract basis faculty are being paid very less amount. They should be given good salary and so that they can give their 100% to their profession.

Conclusion

To sum up, I would like to say that education is the most important tool for the betterment of humanity as well as to develop modernization in civilization. So, there should be foucus on Quality education as it enables students to develop all of their attributes and skills to achieve their potentiality as human beings and members of society. Quality education therefore implies looking into what desirable changes the educational institution wants to make in each student.

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Women Social Network in Naxalites Area: A Review on Armori Panchayat Samiti

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Abstract:

Networks form a source of support for empowering the women representatives hailing from different walks of life, origin and social backgrounds. Networks provide an opportunity for the women representatives to share and learn from each other's experiences. Women are able to identify their own capacity building needs and other important issues that they need to address so as to be able to contribute meaningfully to the political sphere. The 73rd Amendments to the Constitution of India provide the legal basis for direct democracy at the local-level, in rural areas. The amendments lays its thrust on the need to bring people belonging to marginalized groups into the political process by making reservation in seats for women. Experience reveals that representation does not automatically lead to participation. A number of factors limit the active engagement of women in the political sphere. Therefore for the empowerment of women political sphere of social networking can play an important role. In this paper, the researcher attempts to review the role of social networks in empowering the women representatives for their efficacy.

Key Words: Social Networks, Women Empowerment, Women in Panchayati Raj Institutions

Introduction

Networks form a source of support for empowering the women representatives hailing from different walks of life, origin and social backgrounds. Networks provide an opportunity for the women representatives to share and learn from each other's experiences. Women are able to identify their own capacity building needs and other important issues that they need to address so as to be able to contribute meaningfully to the political sphere. The 73rd Amendments to the Constitution of India provide the legal basis for direct democracy at the local-level, in rural areas. The amendments lays its thrust on the need to bring people belonging to marginalized groups into the political process by making reservation in seats for women. Experience reveals that representation does not automatically lead to participation. A number of factors limit the active engagement of women in the political sphere. Therefore for the empowerment of women political sphere of social networking can play an important role.

Panchayati Raj Institutions in India:

The phase started precisely in 1951, with the inauguration of the First Five Year Plan. The year 1952 is significant as it ushered in community development projects and programmes for developing the rural sector. Community development was conceived basically as a programme of the people with reasonable amount of technical and financial assistance from government. In order to generate more enthusiasm and evoke more participation from the people in the process of rural reconstruction, a committee was appointed by the Planning Commission of India headed by Balwant Rai Mehta to study the working of the Community Development Programme in India and suggest how best the community development programme could be implemented and maintained with vigor. The committee suggested a number of reforms among which democratic decentralization was significant. This institutional arrangement, later on came to be known as the panchayati raj. This provided the village panchayat to be made statutorily responsible for a good deal of the development programme at the village level (Nayana, 2008). Late Pandit Jawaharlal Nehru inaugurated it in Rajasthan on 2nd October, 1959 was the first state to implement Panchayati Raj system and in his inaugural address called Panchayati Raj as a revolutionary and historical step. The committee made several recommendations in its report which was published in 1957. The three-tier system would be made of popular bodies at three levels, viz; village, block and district.

In some states like Rajasthan, Karnataka, Maharashtra, Andhra Pradesh three-tier system was established in some other states like Kerala, Jammu and Kashmir one tier system was adopted and in

some other States like Assam, Himachal Pradesh only two tier system was constituted. However, village panchayats are now responsible for implementing the schemes and plans and to mobilize the people's participation for the implementation of developmental schemes and projects, which form a programme for the development of the nation. The Panchayati Raj institutions appear to have been successful in the beginning. The government of India therefore in 1977 appointed Ashok Mehta Committee to enquire into the working of Panchayati Raj Institutions and to suggest measures to strengthen them. The Ashok Mehta Committee in the 132 recommendations stated to give due status to panchayat raj. So it seems that between 1977 and 1987 the panchayati raj passed through a phase of neglect. The panchayat raj institutions have become ineffective bodies shattering the dream of our national leaders of the freedom struggle. After that, the former Prime Minister Sri Rajiv Gandhi, was trying his best to revitalize these grass root institutions which had been forgotten or utilized according to the convenience of power wielding politicians or the power brokers. To resort some respect and full blooded strength to the grass roots institutions the prime minister has mounted a big campaign. In 1985, he appointed G.V.K. Rao committee to study about panchayati raj institutions. It pointed out that the decline in the status and authority of panchayti raj institutions may be attributed to the reluctance of political leadership at state level to share power with district leadership. It suggested entrusting planning, plan implementation and monitoring of rural development programmes to panchayati raj institutions at the district and lower levels. It also emphasized to hold local elections regularly. Due to the failure of the above committees in achieving the desired results, the government of Rajiv Gandhi set up a committee under the chairmanship of Dr. L.M. Singhvi in 1986. It recommended that these institutions should be given a constitutional status. In order to do so, the 64th Constitutional Amendment Bills were moved which were passed by the Lok Sabha, on August 1989, but not approved by the Rajya Sabha. The government of P.V. Narashimha Rao took up the matter once again with the same motive. Hence, the 73rd Amendment Act was passed in 1992 and was placed in part IX of the constitution. This provides for the establishment of rural local self government at following three levels. a) the village panchayat at the village level b) the district panchayat at the district level and c) the intermediate panchayat which stands between the village and district levels in the states.The 73rd Amendment Act of 1992 added a new part relating to panchayats in the Constitution and provide for the following, among other things. I. A gram sabha in a village or a group of villages. II. Direct election to all seats in panchayats at the village and intermediate level. III. Reservation of seats for scheduled castes and scheduled tribes in proportion to their population for membership and office of chairpersons. IV. Reservation of not less than one-third of seats for women. V. Fixing term of five years for panchayats and holding elections within a period of six months in the event of supersession of any panchayat. VI. Devolution of powers and responsibility by the state legislature upon the panchayats with respect to the preparation of plans for economic development and social justice, as also for the implementation of development schemes. VII. Setting up of a Finance Commission within one year of the Amendment and thereafter every five years to review the financial position of panchayats and powers of state legislatures to make provisions with respect to elections to panchayats under the superintendence, direction and control of the chief electoral officer of the state. VIII. Local body elections are to be conducted by the state election commission. IX. Inclusion of the eleventh schedule to the constitution dealing with detail the items over which panchayat institutions have their jurisdiction.

Evolution of Panchayat Raj in Maharashtra:

Maharashtra has had a tradition of strong Panchayats even before enactment of the 73rd Amendment Act, 1992. It was the Bombay Village Panchayat Act of 1920 which for the first time provided for the functioning of statutory village Panchayats as wholly elected bodies. A new law, The Bombay Panchayats Act, 1933 was enacted based on the recommendation of Hatch Committee (1925). After the reorganization of states in 1956 a comprehensive legislation of village Panchayats called the Bombay Village Panchayat Act 1958 was passed. This Act defines the duties, responsibilities and powers of the Village Panchayats. After the setting up of the State of Maharashtra on 1st May 1960, the new Government of Maharashtra set up a Committee directly under the Chairmanship of the then Chief Minister, Shri V.P. Naik, on 27th June, 1960 for the strengthening of the Panchayats. Based on the recommendations of the Committee, the State enacted the Maharashtra Zilla Parishads and Panchayat Samitis Act 1961. The objective of the Act was to provide for

establishment in rural areas, Zilla Parishad and Panchayat Samitis, to assign to them local Government functions and to entrust the execution of certain works and development schemes of the State Five Year Plan to such bodies, and to provide for the decentralization of powers and functions under certain enactment to these local bodies for the purpose of promoting the development of democratic institutions and securing a greater measure of participation by the people in the State Plan and in local Government affairs.

Significant changes introduced in Maharashtra by the 73rd Amendment:

1. Constitutional status to Gram Panchayats and Gram Sabha
2. Holding annually six Gram Sabha became mandatory for the GP
3. A uniform five year term for Gram Panchayats without any extension.
4. Co-option of members is illegal and the GP committee to have only directly elected members.
5. Constitution of a State Finance Commission (SFC) for the financial strengthening of PRIs.
6. Constitution of an independent State Election Commission (SEC) to conduct free, fair and time bound local elections
7. 1/3 of reserved seats for women among members, for the post of Sarpanch and within SC/ST seats

Gram Sabha:

It is defined in section 2(16) of the PR Act, 1992 as a body consisting of persons registered in the electroll role relating to a village comprised within the area of Gram Panchayat.

The Constitution 73rd Amendment has made specific provision for the establishment of Gram Sabha (henceforth) under Article 243G. Accordingly the Gram Sabha is established for a village or a group of villages and serves as an assembly of villagers. Every registered voter in a village becomes a member of gram sabha. Article 243A states that the gram sabha may exercise such powers and perform such functions at the village level as the Legislature of state may provide (Goel and Rajneesh, 2003).The size of gram sabha differs from state to state. In general minimum to have 1000 and maximum of 15000 population in case of it is co-terminus with GPs. If GS is constitute for each revenue village, it coverage a population ranging between 500 to 4500.It is mandatory for GP to conduct GS once in a six months and there by twice in a year to review of all developmental activities of the village. Every GS meeting is presided over by the 'Sarpanch' of respective GP. In the absence of him, the GS can be presided over by 'up sarpanch' or any member of the Panchayat.

Aim: This paper aimed at exploring the social networking of the women as members of the gram-panchayats that comes under the Naxlites Affected area.

Methodology:

This paper is based on primary data and study was conducted in Armori Blockat Gadchiroli District. It is a sampling based study in which the data has been collected from women members in Gram Panchayat. The area of study was Armori Panchayat Samiti at Gadchiroli District comprising of the five villages of Sirsi, Narchuli, Wadgha, Murdimal, Deloda. The universe of the study consisted of all the women members of the GPs in the Armori Panchayat Samiti at Gadchiroli District namely five villages of Sirsi, Narchuli, Wadgha, Murdimal, and Deloda. Three women members from each gram panchayat have been considered, because of which the universe consisted of 540 women members of GPs. Multistage sampling was used in this study.

Profile of the respondents

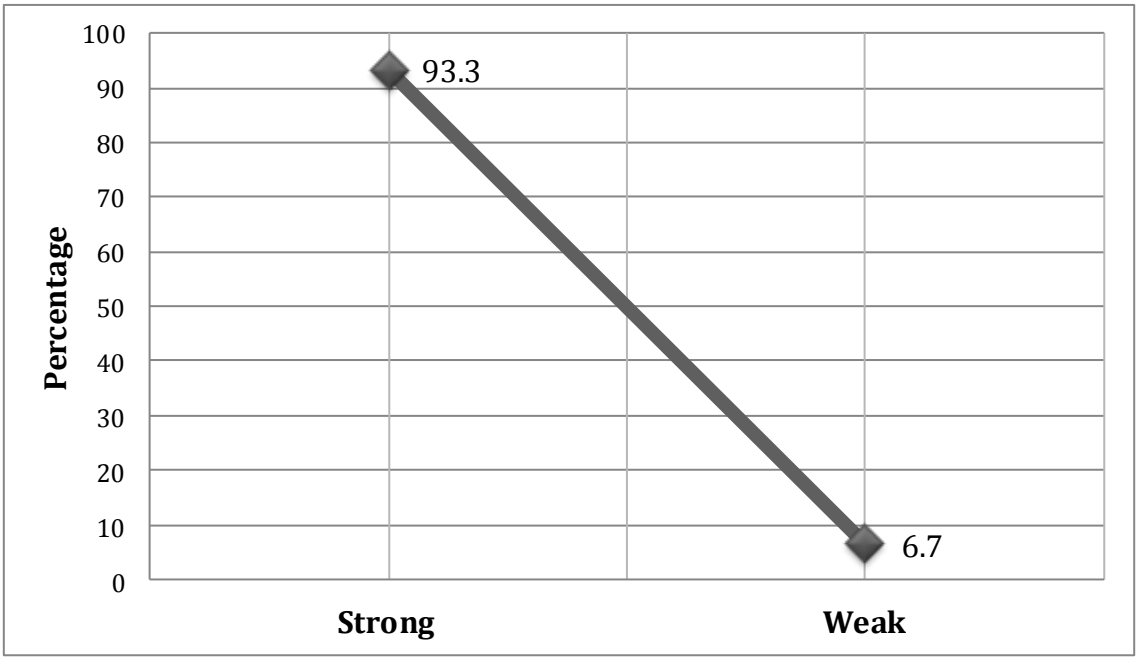
Greater majority 66.6 per cent of the respondents have belonging to 18-35 years age group i.e. youth age; Greater majority 40.00 per cent of the respondents belongs to the Other Backward Classes/ Special Backward Classes social Category which is followed by the 33.30 per cent of the respondents belongs to the Scheduled Tribes'. All the respondents are married; Greater majority 40 per cent have a nearest to BPL line. A large majority of the respondents (73.3 per cent) were joint family. Mostly 73.3 per cent of the respondents' duration of membership in GPs is one to ten years. Greater majority 73.3 per cent of the respondents' designation in GPs is member.

Overall Social networks of the respondents:

Overall a social network of the respondents it is a main sub parameter of it hence the social networks of the respondents in GP's has been studied. And for studding this aspect the researcher has developed the summated rating scale with the help of related written materials and the experts in this field. The

three questions has been developed with the help of it all these questions ware directing the respondents social networks in GP's various functioning. Respondents has been given four points scale to express their responses and all the responses given to these three statements has been summed up and categorized in to four parts and presented in figure.

Overall Social networks of the respondents



The figure reveals that 6.7 per cent of the respondents' social network is weak which strongly indicates that women in GPs are not good in social networking which may affect their capacity and capability too, social networking may help in effective implementation of the schemes and programmes of the GPs hence special trainings can be organize for these respondents so they can be strengthen in the context of social networking. A vast majority 93.3 per cent of the respondents shows there is strong social networking. This shows that these women are more empowered through their active engagement in social networking.

Social networking of the respondents with NGOs, SHGs and other groups or association:

To study the social networking of the respondents with NGOs, SHGs and other groups or association of the respondents in the GPs was the main sub parameter of it hence the social networking of the respondents with NGOs, SHGs and other groups or association of the respondents in GP's has been studied. And for studding this aspect the researcher has developed the summated rating scale with the help of related written materials and the experts in this field. The three questions has been developed with the help of it all these questions ware directing the respondents attendance in GP's various functioning. Respondents has been given four points scale to express their responses and all the responses given to these three statements has been presented in below table.

Social networking of the respondents with NGOs, SHGs and other groups or association

Sl. No	Statements	Not At All	To Some Extent	To High Extent	To Very High Extent	Total
1	Are you Connected With SHGs working in your village?	0 0.0	4 26.7	7 46.7	4 26.7	15 100.0
2	Are you Connected with NGOs working in your village?	1 6.7	0 0.0	2 13.3	12 80.0	15 100.0
3	Are you connected with other semiformal groups or informal groups or association in your village?	1 6.7	4 26.7	4 26.7	6 40.0	15 100.0

The table reveals that the 46.7 per cent of the respondents are connected with SHGs working in their village to high extent which is good sign which also shows that women in GPs are strengthening by getting connected with the SHGs but this table also shows that more than half 40.00 per cent of the respondents are connected with other semiformal groups or informal groups or association in their village and almost half 80.00 per cent of the respondents are Connected with NGOs working in their village which is positive sign for the women in GPs of Armori Panchayat Samiti. It shows the women from this Naxlites affected area are more empowered and not bondable by any restriction from their cultural or some other aspects of rural development.

Conclusion:

Low literacy levels, absence of education and limited or no exposure, all lead to a lack of confidence and many women are unable to comprehend the true spirit of decentralization and recognize the opportunities that it provides or are unable to establish good networking. The overall strategy was designed to bring women into political structures and support their participation in politics, by organizing campaigns and training programmes to prepare women to discharge multiple roles, enabling them to link local priorities to the planning process. Research had tasked with facilitating women's participation, inspiring them to lead the process of change in the district, strengthening the existing collectives and networking with them at different levels. The key interventions for building capacities of empowerment of women representatives and other panchayat functionaries were: strengthening women's collectives and building networks; and strengthening information dissemination mechanisms. Women can collectively strategize and prepare action plans according to the felt needs of the community and implement them thereafter. Collectivization provides support to forum and network members and strengthens their determination to act as effective decision-making individuals in the social and political arena. Within the democratic setup, a group or a collective holds power. The networks thus act as pressure groups on the government and on civil society to make space for women's participation in the political sphere.

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The Globalization of Technology and Its Implications for Developing Countries.

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Abstract:

Based on a categorization of manners by which the created information is communicated, this paper investigates the effect of the various types of the globalization of innovation on agricultural nations. Through voyaging, media, logical and specialized studios, Internet and numerous other correspondence channels, globalization permits the transmission of information at a lot more prominent speed than in the past. In any case, this doesn't consequently infer that non-industrial nations prevail to profit from mechanical advances. Actually, this will unequivocally depend on the idea of the innovation and of the approaches executed in both progressed and agricultural nations.

Keywords:

Technology move; transnational organizations; Technological coalition; scientific joint efforts.

Introduction:

The international transmission of know-how, knowledge and technological expertise is growing and it's increasingly important within the world economy. the load of science based commodities is consistently increasing in world trade foreign direct investment (FDI) by transnational corporations (TNCs) is a crucial vehicle for the transmission of innovation across the planet transformer scientific and technological cooperation is absorbing more energies and resources of governments and firms New opportunities are now opening to profit from the available stock of data . But how important are they for fewer developed countries (LDCs)? Are they participating within these flows or are they rather staying aside and observing them? How are their technological capabilities suffering from the considerable increase in the flows of knowledge? The aim of the paper is to: Define the globalization of technology with the utilization of a replacement categorization. Report some evidence on the degree of developing countries' participation within the globalization of technology. Discuss the relevance and impact of the globalization of technology on developing countries, and its implication for his or her development strategies and policies the precise form and extent of technology globalization for developing countries bears important consequences for his or her government action, and implies an especially active attitude towards innovation policies. It'll actually be argued that the globalization of technology offers new opportunities for development, but that they're by no means available without deliberate effort to soak up innovation through endogenous learning.

Lessons learnt on the character of technology:

Economists have often studied technology with the tools of study of competitive markets. Thus, if technology is studied like all other commodity, and if markets were freely working and excellent competition prevailed, then no problem of technology transfer would pose. Technology (from whatever source) would be easily and instantaneously transferred and utilized. The efficiency of its use would only be a matter of ensuring the conditions for efficient resource allocation within the context of exogenously determined technological alternatives. Technology policy would only contains government sponsorship of institutes that. Archibugi, C. Pietrobelli / Technological Forecasting & Social Change 70 collect process and disseminate technical information, justified as a provision of public goods. This theory descends from two assumptions: (i) technology consists simply of a group of techniques wholly described by their 'blueprint'; (ii) all techniques are created within the developed countries, from which they flow at no or low costs to developing countries (for a recent reaffirmation of this old belief,However,

several authors recognized, already a couple of decades ago, the special features of technology and technological change, resulting in a perception of technology in additional complex terms Thus, first of all, no existing technique is totally expressed by the sum and combination of their material inputs and therefore the codified information about it. In fact, much of the knowledge on the way to perform elementary processes and on the way to combine them efficiently is tacit, not easily embodied, nor modifiable or readily transferable, and 'a firm won't be ready to know with certainty all the items it can do, and positively won't be ready to articulate explicitly how it does what it does'.The core of innovating firms is moving from trading embodied innovations to disembodied innovation. As shown by Naomi Klein, large corporations with managerial, financial and technological advantages tend to take advantage of their ideas, trademarks, expertise and technological innovations, while contracting out the assembly. This has substantial implications for the generation and transmission of know-how, which tends to become far more hooked in to property rights (IPR). In turn, it's creating a replacement international division of labor where ''wet-ware'' and ''soft-ware'' are generated within the North, and ''hard-ware'' is localized within the South.

A taxonomy of the globalization of technology:

The aim of this taxonomy is to classify individual innovations consistent with the ways during which they're produced, exploited and diffused internationally. Innovations are therefore classified consistent with the tactic during which they're generated. Both at single enterprise and at national levels, the categories are complementary, not alternative. Enterprises, especially large ones, may generate innovations following all the three procedures described. From a historical point of view, these categories emerged in three different stages, albeit the second and therefore the third added to, instead of substituted, the oldest one. The categories of this taxonomy and therefore the main forms through which the three processes manifest themselves. We thus attempted to find our way in such labyrinth by identifying three main categories:

1. The international exploitation of nationally produced technology;

2. The global generation of innovation;

3. Global technological collaborations.

3.1. The international exploitation of technology produced on a national basis

The first category includes the attempts of innovators to obtain economic advantages by exploiting their technological competencies in markets other than the domestic one. We have preferred to label this category 'international' as opposed to 'global', since the players that introduce innovations preserve their own national identity, even when such innovations are diffused and marketed in more than one country. Firms may opt for a variety of strategies in order to obtain economic returns from their innovations in foreign markets. The oldest form which firms have used to profit from their innovations in overseas markets is to trade products with a technology-based competitive advantage. New products and processes have often been exempted from trade restrictions since the importing countries were not able to generate competitive domestic alternatives, or to device timely restrictions to trade. It is however well known that exporting technology-intensive products provides an advantage to the exporting countries (for example, in terms of more stable prices, higher rents and profit margins, and positive and dynamic externalities), and that in turn the importing countries increase their know-how dependence unless they are able to bridge the gap in competencies. Exports are not the only form to exploit firms' technological advantage in overseas markets. Another way is to transfer their know-how to foreign firms, for example, by selling licenses and patents. This form of technology transfer would however require that the host country firms already have the capital equipment and the capabilities to exploit new ideas and devices into production. It is likely that in the long run the importing country will be able to move upstream in the value-added chain, and to become able to generate autonomously at least part of the know-how relevant for production. There is a third important form of exploiting the innovation generated at home in overseas markets: to install FDI productive facilities in host countries and

produce in loco new products and processes. Of course, we consider here only production plants in host countries.

The global generation of innovations

The global generation of innovations includes innovations generated by single proprietors on a global scale. Only innovations produced by multinational enterprises fit into this category since it requires the existence of international but intra firm R&D labs and technical centers. The authentic global generation of innovations requires organizational and administrative skills that only firms with specific infrastructure and a certain minimum size can attain. This can be achieved both through the acquisition of existing laboratories or with Greenfield investments in host countries.

Global technological collaborations

In recent times, a third type of globalization of innovative activities has made a forceful entry into the scene. This, in some ways, is intermediate to the two preceding categories. Technological collaborations occur when two different firms decide to establish joint ventures with the aim of developing technical knowledge and/or products. Three conditions need to be respected: (i) the joint venture should be something more than an occasional and informal collaboration; (ii) firms preserve their ownership; (iii) the bulk of the collaboration is related to sharing know-how and/or the generation of new products and processes.

Evidence on developing countries' involvement within the globalization of technology:

The sorts of the globalization of technology singled call at the section above have significant implications for the national economies. Each of them will have a special impact on learning and, eventually, on local economic development. This section, on the idea of the available evidence, documents the involvement of LDCs in each of the three categories discussed above. First of all, it's important to worry that LDCs' generation of latest technologies and innovations remains negligible. the assembly of data is heavily concentrated within the Triad countries, as shown by a spread of converging indicators of scientific and technological activities. This especially applies to the more formalized sorts of knowledge creation. Although data aren't always comparable since countries collect them consistent with different criteria, the evidence is so strong that it doesn't depend upon the indications selected. Some evidence supported bibliometric indicators and patents granted within the USA are reported.

Strategies for technological and industrial development :

The evidence reported is incomplete and fragmentary, but the conclusion emerging is straightforward: developing countries have a marginal participation within the generation and diffusion of technology. They participate to a minimal extent to the globalization of technology, and differently from what occurs in trade and finance. Globalization is offering new technological opportunities, but these aren't seized by developing countries. There is, of course, the remarkable exception of the East Asian NICs. These countries still be, even from the globalization of technology viewpoint, the sole case of a successful catching up strategy in technological capacity also as in income levels. The taxonomy here reported might hopefully help policy analysis. It emerges that the label ''globalization of technology'' includes a heterogeneous set of phenomena, each of which could lead on to different policy implications. We are here mainly addressing the North–South knowledge flow, and given the scientific and technological muscles of the 2 areas, this is often naturally the foremost major factor of technology transfer. How could the South enjoy these flows so as to start out off and improve its own autonomous competencies? To assess how each form are often beneficial to the South, we'll stress the importance of learning. We'll argue that it's within the advantage of developing countries to participate in any sort of globalization if this might allow them to find out. The three categories will therefore be assessed on the bottom of their learning potential.

Conclusions

Globalization offers a replacement opportunity for knowledge dissemination, but this doesn't mean that each one the nations and institutions will equally enjoy it. On the contrary, it seems that the institutions that have managed to profit most from globalization are people

who already are at the core of scientific and technological advance.Developing countries aren't automatically excluded from the benefits. they will enjoy globalization of technology if they implement active policies designed to extend learning and improve access to knowledge and technology a couple of success cases are acknowledged here. We are aware that these cases, unfortunately, represent an exception, not the rule, which huge parts of the planet aren't benefiting yet from the opportunities offered by technological change and its globalization. However, the few success stories are often instructive so as to point an appropriate development strategy.We have also argued that the three categories of the globalization of technology require different learning strategies, and thus that, if a rustic features a choice, it'd have good reasons to prefer one form to a different. Especially, we've argued that the import of foreign technology, either embodied or disembodied, features a negligible learning impact intrinsically, unless when amid local policies to market learning, human capital and technological capabilities. Public policies should therefore attempt to induce foreign firms to maneuver from exporting their products to producing locally, and transferring a technological component Furthermore, it's often more advantageous for a developing country to line up interfere strategic technological agreements than simply hosting production facilities of foreign firms. Public policies should therefore also attempt to ‘‘upgrade’’ FDI to strategic technological partnering. We’ve argued that collaborations among public and business organizations can provide substantial benefits to developing countries. Policies at both the national and intergovernmental levels should therefore consider these collaborations as a preferential channel to transfer and acquire technological competencies

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Globalization and Economic Development of India

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Abstract

"Globalization" is the universe term and its means integration of economies and societies through cross country flow of information, ideas, technologies, goods, services, capital, finance and people. It may benefit even within a country those who have the skill and the technology. Since the economic reforms of the early 1990s, the Indian economy has witnessed a rapid rise in the economic growth and simultaneously, has brought about an increase in the economic efficiency. It is becoming more and more certain that globalization is not just purely an economical phenomenon; it is exhibiting itself on a worldwide level. Amid globalization's observable appearances, the most obvious are the larger international mobility of goods and services, flows of finance capital, data and information and most importantly people. On top of that, there are technological progresses and more international cultural interactions, which are facilitated by the enhancement of free trade of large quantities of more differentiated goods and also through immigration and tourism. Despite the positive results of globalization, rising India is being pushed to address these challenges and to move towards growth early. According to economic experts and global surveys, the 21st century is dominated by India and China. India, currently the fourth-largest measure of purchasing power, overtakes Japan, making it the third-largest economy in 10 years. Globalization has positive and negative consequences for the Indian economy. Globalization has taken us a long way since 1991, boosting the development of our country.

Globalization has opened up new and tremendous opportunities for worldwide developers. To accrue the benefits of Globalization, India introduced economic policy changes and integrated its economy to the international economy since the Cold War end. India's economic achievement over the last two decades has attracted the attention of other regional and global powers for closer cooperation with India. It also examines the performance of the Indian economy since the arrival of Globalization in India. It also highlights the measures taken by the government to improve the economy of our country.

This paper tries to study of Globalizations positive effects on the Agricultural, manufacturing industries, trade, Service Sector ,Telecommunication sector, Banking sector,Informatiom Technology sector,Transfortation sector and Educational sector of the India. The main aim of the paper is to study and analyze the overall view of globalization in India.

Keywords: India, Globalization, Indian Economy Agricultural, Tourism, International Economy.

Introduction:

Agricultural India is known as a developing country. As a founder member of the GATT and the World Trade Organization, India is linked to the process of Globalization. The GATT was established in 1947. The GATT agreement was an open international trade policy towards Globalization. The WTO, the international body controlling the GATT agreement, was established in 1995 and was replaced by the WTO. (The root of Globalization is in the GATT agreement.).

In order to survive in the face of this Globalization, India has been embarking on economic reforms since 1991 to enhance the efficiency and competitiveness of various sectors in the country, along with globalization, the concepts of privatization and liberalization were also implemented.

Meaning: - Globalization means opening up the country's economy to international trade, transaction and commerce by reducing the country's control over international trade.

This globalization has accelerated the economic development of the country by increasing the efficiency of various sectors in India. The present research paper attempts to study various areas in India due to globalization.

Definition of Globalization: -

According To WHO: Globalization can be defined as "The increased inter connectedness and inter dependence of peoples and countries. It is generally understood to include two inter-related elements: the opening of international borders to increasingly fast flows of goods, services, finance, people and ideas; and the changes in institutions and policies at national and international levels that facilitate or promote such flows."

Objectives:

1) To study of need of Globalization for development of country.
2) To study of Globalization effects on development of Indian economy.
3) To study of Globalization on the Indian agriculture, industry, Service, trade and Education sector.
4) To study of Globalization's favorable effects on GDP.

Analysis:

In the present era Globalization has gained an enormous importance especially in the last 15 to 20 years. The modern world is seen as the world without geographical boundaries and any kind of barriers. Globalization has been the major force behind this. In the basic sense, the word globalization refers to the adoption of liberalization of foreign exchange restrictions, open and unfettered trading markets, etc. As a result the world is considered as a global village. Globalization is the integration of the world economy and exchanging the ideas, products, technologies etc. To rectify its ailing financial health, Government simultaneously decided to amend its economic policies and go for privatization & liberalization of its economy. These decisions had immediate positive effect. However, Globalization has proved to be a double edged weapon. It did help government temporarily meet its emergent need of foreign exchange but it has, as a by-product, caused some permanent damage to Indian Economic system and Indian social structure. The process of globalization is an inevitable phenomenon in human history which has been bringing the world closer since the time of early trade and exploration, through the exchange of goods, products, information, jobs, knowledge and culture. Globalization is the process of integration of the world into one huge market. It provides several things to several people with removal of all trade barriers among countries. Globalization happens through three channels: trade in goods & services, movement of capital and flow of finance. Globalization in India is generally taken to mean integrating the economy of the country with the world economy.

Globalization and different sectors in India.

Agricultural and Globalization:-

Globalization can enhance agriculture's role greatly as a growth engine in countries with low-income by expanding agriculture faster than domestic consumption. Globalization increases agriculture's potential to enhance food security through multipliers to the non-tradable, massive, employment-intensive rural sector.

Globalization has accelerated the growth of agricultural production at a faster rate than ever before. The rate of growth 10 years earlier was 3%, and now it has gone up to about 4-6%. However, these increased growth rates involve a considerable change in its composition. Initially, the growth came from food staples when the scope for the export market is limited. Now, the inclination is towards high-value commodities. Growth in the income of the countries means that production may now occur in large aggregates in markets that were formerly small niche (e.g. – high-quality tea, coffee). The horticulture markets have also immensely grown and continue to flourish at present.

As exports of agricultural commodities take a hike, demand for horticulture and livestock on the domestic level will also see a rapid increase. Thus, in countries with low income, about half the increments will be in high-value livestock and horticulture for both domestic use and export. As a consequence, cereal production will become less important.

With the production mix shifting towards high-value crops, export crops, and horticulture, the rate of ROI reducing the cost of transactions will rapidly increase. This is true for investments in value-added enterprises. However, much of this activity takes place through capital-intensive processes. Complexities are also present in marketing. Both will provide a comparative advantage to countries with a high-income population. Low-income countries, at each step, just look at comparative advantage in the chain from consumer to producer and must avoid attempting components in which they have little or no comparative advantage.

In the global economy, cereal plays a vital role in food security. The shipping cost is witnessing a decline. In developing countries.

Post liberalization, Indian farmers face new challenges in the form of competition from highly subsidized agriculture of developed nations. This prompts the need of making Indian agriculture successful and profitable by improving the conditions of small and marginal farmers, countering the negative effects of the Green Revolution, developing and promoting organic farming, and diversifying cropping patterns from cereals to high-value crops.

There are positive and negative effects of globalization on Indian Agricultural:

Positive Effects of Globalization on Agri. Field.

I) New techniques and technology are adopted by farmers in farming.

ii) Increase in Crop productivity.

iii) Minimum usage of fertilizer, pesticides, water and resources.

iv) Fruits, nuts, vegetables which were first imported from foreign countries are now produced at our places and exported which in turn increases foreign exchange.

v) Research & Development to acquire a position in the world agriculture market.

vi) Establishment of food processing industries, increase in employment and jobs.

vii) Minimum wastage of grains, fruits, vegetables as we can adopted techniques from develop country.

Negative Effects of Globalization on Agri. Field.

i) Less manpower in the field, lack of job in villages.

ii) High cost of techniques and technology.

iii) Gap increases in between rich and poor farmers.

iv) High cost>high loans > if crop fails> high loss> suicide.

Industries, FDI, MNCs and Globalization:-

Foreign Investment is investment made by MNCs.

Advantages of Foreign Trade—

'Foreign Trade' has facilitated the travel of goods from one market to another.

It provides a choice of goods to the buyers.

Producers of different countries have to compete in different markets.

Prices of similar goods in two markets in two different countries become almost equal.

SEZs or Special Economic Zones are industrial zones being set up by the Central and State Governments in different parts of the country. SEZs are to have world class facilities such as electricity, water, roads, transport, and storage, recreational and educational facilities. Companies who set up production units in SEZs are exempted from taxes for an initial period of five years. SEZs thus help to attract foreign companies to invest in India.

Around 1991, some changes were made in policy by the Indian government as it was decided that the time had come for the Indian producers to compete with foreign producers. This would not only help the Indian producers to improve their performance but also improve their quality.

Liberalization means the removal of barriers and restrictions set by the government on foreign trade. Governments use trade barriers to increase or decrease (regulate) foreign trade to protect the domestic industries from foreign competition. Example, Tax on imports. Around 1991, government India adopted the policy of liberalization. World Trade Organization (WTO) was started at the initiative of the developed countries. Its main objective is to liberalize international trade. Privatization means transfer of ownership of property from public sector to private sector. Business Process Outsourcing (BPO) is the contracting of non-primary business activities and functions to a third party service provider. Economic Reforms or New Economic Policy is policy adopted by the Government of India since July 1991. Its key features are Liberalization, Privatization and Globalization (LPG).MNCs set up production in various countries based on the following factors: MNCs set up offices and factories for production in regions where they can get cheap labour and other resources; e.g., in countries like China, Bangladesh and India.

At times, MNCs set up production jointly with some of the local companies of countries around the world. The benefit of such joint production to the local company is two-fold. First, the MNCs can provide money for additional investments for faster production. Secondly, the MNCs bring with them the latest technology for enhancing and improving production. Some MNCs are so big that their

wealth exceeds the entire budgets of some developing countries. This is the reason why they buy up local companies to expand production. Example, Cargill Foods, An American MNC has bought over small Indian company such as Parakh Foods. MNCs control production by placing orders for production with small producers in developing nations; e.g., garments, footwear, sports items etc. The products are supplied to these MNCs which then sell these under their own brand name to customers.

Factors which have helped in globalization:

Technology. Rapid improvement in technology has contributed greatly towards globalization. Development in information and communication technology has also helped a great deal. Telecommunication facilities — telegraph, telephone (including mobile phones), fax are now used to contact one another quickly around the world. Teleconferences help in saving frequent long trips across the globe. Information technology has also played an important role in spreading out production of services across countries. Orders are placed through internet, designing is done on computers, even payment for designing and printing can be arranged through internet. At times, MNCs set up production jointly with some of the local companies of these countries. The benefit to the local company of such joint production is two-fold. First, MNCs can provide money for additional investments, like buying new machines for faster production. Second, MNCs might bring with them the latest technology for production. But the most common route for MNC investments is to buy up local companies and then to expand production. MNCs with huge wealth can quite easily do so. To take an example, Cargill Foods, a very large American MNC, has bought over smaller Indian companies such as Parakh Foods. Parakh Foods had built a large marketing network in various parts of India, where its brand was well-reputed. Also, Parakh Foods had four oil refineries, whose control has now shifted to Cargill. Cargill is now the largest producer of edible oil in India, with a capacity to make 5 million pouches daily! In fact, many of the top MNCs have wealth exceeding the entire budgets of the developing country governments. With such enormous wealth, imagine the power and influence of these MNCs! There's another way in which MNCs control production. Large MNCs in developed countries place orders for production with small producers. Garments, footwear, sports items are examples of industries where production is carried out by a large number of small producers around the world.

Globalization and Trade:-

Globalization is a process that encompasses the causes, courses, and consequences of transnational and transcultural integration of human and non-human activities. India had the distinction of being the world's largest economy at the beginning of the Christian era, as it accounted for about 32.9% share of world GDP and about 17% of the world population. The goods produced in India had long been exported to far off destinations across the world; the concept of globalization is hardly new to India. India currently accounts for 2.7% of world trade (as of 2015), up from 1.2% in 2006 according to the World Trade Organization (WTO). Until the liberalization of 1991, India was largely and intentionally isolated from the world markets, to protect its fledgling economy and to achieve self-reliance. Foreign trade was subject to import tariffs, export taxes and quantitative restrictions, while foreign direct investment was restricted by upper-limit equity participation, restrictions on technology transfer, export obligations and government approvals; these approvals were needed for nearly 60% of new FDI in the industrial sector. The restrictions ensured that FDI averaged only around $200M annually between 1985 and 1991; a large percentage of the capital flows consisted of foreign aid, commercial borrowing and deposits of non-resident Indians. India's exports were stagnant for the first 15 years after independence, due to the predominance of tea, jute and cotton manufactures, demand for which was generally inelastic. Imports in the same period consisted predominantly of machinery, equipment and raw materials, due to nascent industrialization. Since liberalization, the value of India's international trade has become more broad-based and has risen to ₹ 63, 0801 billion in 2003–04 from ₹ 12.50 billion in 1950–51. India's trading partners are China, the US, the UAE, the UK, Japan and the EU. The exports during April 2007 were $12.31 billion up by 16% and import were $17.68 billion with an increase of 18.06% over the previous year. India is a founding-member of General Agreement on Tariffs and Trade (GATT) since 1947 and its successor, the World Trade Organization. While participating actively in its general council meetings, India has been crucial in voicing the concerns of the developing world. For instance, India has continued its opposition to the inclusion of such matters as labour and environment issues and other non- tariff

barriers into the WTO policies. Despite reducing import restrictions several times in the 2000s, India was evaluated by the World Trade Organization in 2008 as more restrictive than similar developing economies, such as Brazil, China, and Russia. The WTO also identified electricity shortages and inadequate transportation infrastructure as significant constraints on trade. Its restrictiveness has been cited as a factor which isolated it from the global financial crisis of 2008–2009 more than other countries, even though it experienced reduced ongoing economic growth.

Globalization and Services:-

In today's modern age, globalization is an important concepts. Globalization has also changed the service sector in India. Globalization in India has led to a lot of changes in service sectors. Telecommunication technology has grown. Now the use of internet in India has increased tremendously and the use of internet has radically changed the Banking Sector, also Telecommunication sector has undergone a radical change. Globalization has also seen radical changes in the banking system such as Core Banking, Internet banking, Online Banking, Mobile Banking also banking system adopted fast funds transfers with the help of RTGS,NEFT,IMPS etc….. Banks have also developed their own mobile applications and are being used by a large number of customers. Banks have also introduced modern facilities like Fund Transfer, Balance Check, Demat account, bank statement, FD Account, RD Account, and Mutual Funds Account etc. banking transactions done by UPI very speedily and smoothly. Due to Globalization increases use of android phones, internet so for banking there are many Banking utility applications available like a Google Pay, Phone Pay, Amazon, Paypal, Paytm etc.

Due to Globalization, the Insurance sector in India has also expanded. Marine insurance, General Insurance, Fire Insurance, Life Insurance, health Insurance policies has increases day by day.

Globalization has also seen an increase in the number of Roads and highways, Express highways, Overflies, Bridges and Tunnels in India as well as radical changes in the railways, the number of Fast Express, Shatabdi Express, Tejas Express, Gatiman Express, Vande Bharat Express etc. has also increased. Also, in major cities of India, metros have been started or construction of metros can be seen. As a result of Globalization, we see increased air travel in India, from World class airports, Modern class airports as well as a lot of Indian people in India traveling by Air, taking advantage of air travel and flexible air tickets Prices. The number of International class Airports in India has also increased.

The biggest beneficiary of Globalization has been the IT sector in India, with large scale software development in India. In India, Software companies are concentrated in Pune, Hyderabad, Gurgaon, Noida, Banglore and Navi Mumbai. Software Export increases in large number and World famous Companies like a Google, Microsoft Capegemini, Cognizant, Oracle TCS, Infosys, Tech Mahindra, SAP etc. have branches and offices in India.

Conclusion:

- Globalization has accelerated the process of Modernization in India.
- Competitiveness and efficiency of various sectors – Agricultural, Trade, Commerce, Industries, Education, Manufacturing, Services, Banking etc... Increased in India.
- Globalization seeks to achieve economic efficiency through competitiveness, while seeking the broader objectives of economic and social Development.
- The process of Globalization has brought significant success for our country's economy-increase in GDP growth rate; strengthen the volume of exports and imports, huge flow of investment and many others.
- Liberal policies adopted by Indian government has played a dominant role in development of agriculture in India.
- Globalization is going to play key role in development and advancement in the field of agriculture resulting in all the fields directly or indirectly getting the benefit from it.
- India is getting a global recognition and slowly moving towards to become a major economic and political strength.
- Increases Smart Cities, International Airports, Modern Railways, Metros, Express Highways, National Highways etc.
- Increases Software Exports and Revenue of software companies.

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Current Status of Covid- 19 Pandemic: A Case Study of Solapur District

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Abstract

The present case study Current Status of COVID- 19 Pandemic in Solapur District. We analysis first case of Solapur district to today cases of COVID and also given data statically by taking 4 points. Total Cases, Total Death, New Cases and New Death cases in Solapur District as well as Maharashtra State. Here we mention Start, Month wise and Today Cases in Solapur District. Discussing about how to Government bodies are failure controlling corona virus cases in Solapur and Maharashtra, India.

Keyword: Covid-19, Total Cases, Number of Death and New Cases in Solapur District.

Introduction:

Corona Viruses are Ribo Nucleic Acid (RNA) Viruses it's belonging to genus corona family. Corona are infectious disease, corona affects different people in different way most of people infected to contact and Drought Droplets of Atmospheres, contact with infected people, Through public places, especially in public transport and crowded area. The first corona Patient identify in India for Kerala State in 4th March 2020 and The first confirmed corona virus Patient in Maharashtra was reported on 9th March 2020 in Pune City. 12th April 2020 it was the first COVID-19 Patient as well as fatality from Solapur district. Solapur are one of most important district defined corona patient 34 day of Maharashtra, solapur district first case was identified and that will start number of patient increased day by day, Solapur are 34 days Green Zone within one week he convert Red Zone because number of infected person increased. Today it has been spread all over the Solapur District.

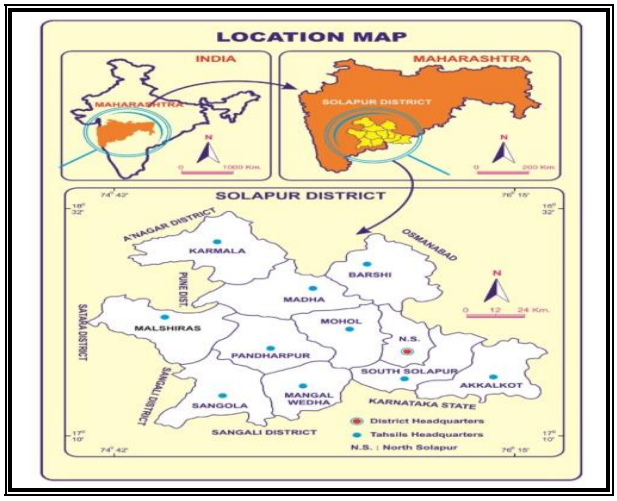
Objectives of the Study

The main objective of the study is to examine the Covid Case in solapur District.

1) To Study Total Cases of Corona Virus in Solapur District.
2) To Study New Cases of Corona Virus in Solapur District.
3) To examine Death of Corona in Solapur District.

Study Region:-

The district of Solapur is one of the most significant districts of the Maharashtra state both in terms of Location and Population. It lies, entirely in the Bhima basin and located in between, $17^0 10'$ North to $18^0 32'$ North latitudes and $74^0 42'$ East to $76^0 15'$ East longitudes. The total geographical area of the solapur district is 14895 square kilometres with a population of 4317756 according to 2011 census. The area under study constitutes 4.88% area and 4.51% population of Maharashtra state. The district entirely lies in drought prone area of Maharashtra state. The region is divided into four seasons of cold, hot, monsoon and post monsoon. The yearly temperature ranges between 10^0 to 44^0 C. The annual average rainfall is 667.10mm.



Data Base & Methodology:- The present study is based on the primary and secondary data sources. The secondary data was collected from various offices like district health office, Municipal Corporation office, district census report, social welfare department, zilla parishad department and statistical department of Solapur district. The primary data have been collected from field survey and the data has been processed and presented with help of cartographic technique, Graphs, Diagrams and analyzed accordingly.

Case Analysis: The following Table is shows Solapur District Data, by total Cases, total death Cases, New Positive Case and total healthy patients with date 12 April to 20th September 2020 by using statically data analysis.

Date	Solapur District			
	Total Corona patients	**New Corona Positive patients**	**Total Death of Corona**	**Today Total Healthy Patients**
12-Apr-20	1	1	1	0
3st May 2020	264	48	14	41
1st June 2020	949	84	88	394
1st July 2020	2643	35	267	1404
1st Aug 2020	8638	250	463	5144
1st Sept 2020	18163	363	742	13563
20 Sept 2020	28785	584	1029	19898

Table 1.1 shows that first Positive case in 17th March 2020 in Solapur no positive patient identify after 34 days it mains 12th April 2020 first Positive Case identify in Solapur city, these patient death after identify it is Positive, then 19 July 2020 increased positive case in 5629 and death are 369 within three months in increased patients and today it mains 21st Sept. 2020 it has been spread all over the solapur district it is 28785 patients are identify and 584 Death of today, recovery of patient are 19898.

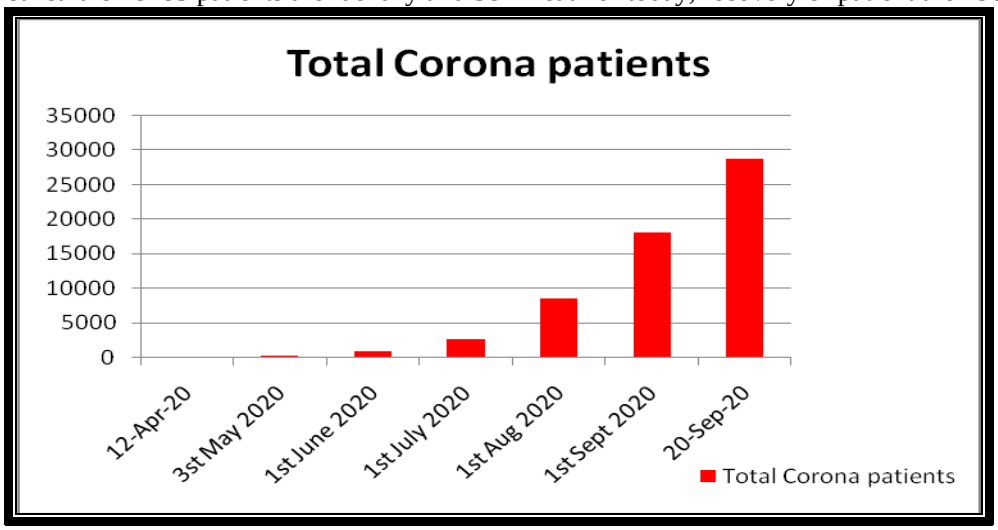


Fig. 1: Show the day wise (Between one month day gap) number of cases COVID-19 positive person in Solapur District

On the basis of statistical data analysis by given solapur district data, few month wise Results also find, first figure Bar show total cases increases very rapidly but it is not a highest point, may be possible

see highest pike point after few month in time, it is depend on Solapur Municipal corporation rules and common people. How take it lightly or strongly, using PPE, Antigen test, Safety guideline against COVID 19 Pandemics

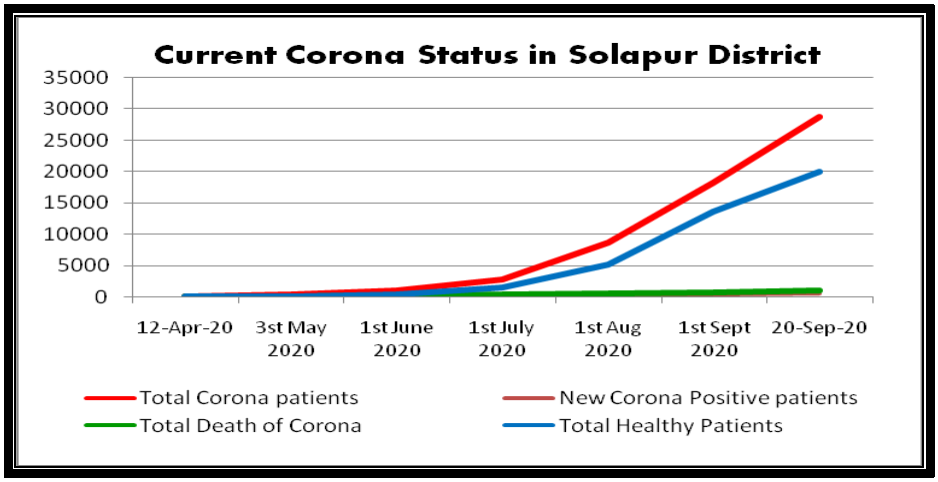


Fig. 2: Show the day wise (Between one month day gap) increased the cases COVID-19 positive Person and Death in Solapur District.

In the second figure, there are four slopes. Which show total corona patients, total death of corona, new corona positive patients and total recovery patients, average death rate at 12th April 2020 to till is 1029; it is sometime low to other district of Pune, Mumbai, Nasik and Nagpur District. This change may be possible Solapur environment, Solapur Doctor's treatments plans, Corona warriors defend satiations plans and governing bodies plans.

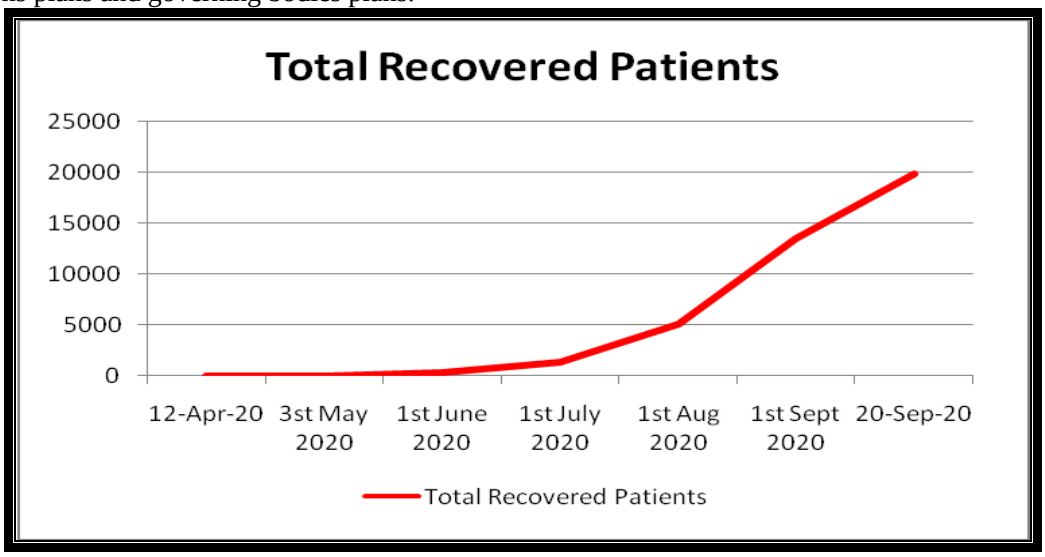


Fig. 3: Show clear picture of figure second, the day wise (between Months gap) increment of cases COVID- 19 positive person and total death in Solapur District

In this figure show total recovered Patients curve up and up, this change may be possible Solapur environment, Solapur Doctor's treatments plans, Corona warriors defend satiations plans and governing bodies plans, the idea of a complete lockdown was to flatten the curve, stop people from interacting with each other, maintain social distancing and the number of COVID- 19 cases will start coming down. There are many districts in Maharashtra that succeeded in using the lockdown to this effect.`Solapur District According to number, it seems that the spread of corona virus in increasing in rural areas. On the 20th September 584 new infected patients were found in rural areas, while 9 patients were reported dead. In solapur city, 113 new infected patients were found and one patient died. In the last three, four days, 30 deaths have been reported in total both in the city and District. Including 584 newly infected Corona virus patients. Infected patients were found in various talukas like Pandharpure – 46, Sangola- 38, Barshi-36, South Solapur-21, Karmala- 20.

Conclusion: According to numbers, it seems that the Spread of Corona Virus in Solapur District. Very long period after the first corona case defined in Solapur but its spread within 4 months, number of people migrating Pune and Mumbai to Solapur city, people can't awarded about corona, people are travel free in all area, last month spread of corona virus in increasing in rural area. The same condition for few days in creased corona cases in rural as well as urban area in solapur district.

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Implementation of Environmental Agenda: An Urgent Need of Time

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Abstract:

Globalization encourages each country to specialize in their best production by using the least amount of resources. It makes production more efficient, promotes economic growth and lowers prices of goods and services, making them more affordable for lower income class people. Apart from that, consumers get better products with more variety. The definition of Globalization related with Geography shows how it is a progressive process which affects development of humanity. But the massive development of transport, that has been the basis of globalization, is also responsible for serious environmental issues. Global economic growth and industrial productivity have big environmental consequences as they contribute to green-house gas emissions, global warming, air pollution, depletion of natural resources, deforestation, destruction of eco-systems and loss of biodiversity. The worldwide distribution of goods has also created a big garbage problem, specially, plastic pollution. Deep introspection by each one of us as global citizens of the world is expected now. We relate two major terms, Globalization and Sustainable Development with each other. The development, expected through this definition, is not gained by sacrificing the basic elements of nature like air, water, soil and nature in general. If we want any concrete, sustainable development of mankind, we have to safeguard nature and protect it on worldwide scale. We have already made great harm to nature and have been witnessing its dreadful effects, prominently, for last two years. Worldwide climate change, flood situations, landslides, increase in temperature and mainly, the deadly Corona virus, has drastically changed our lives. It's an urgent need that we take initiatives towards sustainable development. In this research paper, researchers have presented the possible solutions to Save the Earth.

Key Words: Globalization, Sustainable development, Green-house gas emissions, Global warming, Air pollution, Depletion of natural resources, Deforestation, Destruction of eco-systems and Loss of biodiversity, Climate Change.

Paper:

Beginning approximately from Laissez Faire, the term 'Globalization' became widely popular in the second half of the 20th century, after the Second World War. However, the roots of globalization can be found in the early ventures of human beings as well. From old times, many explorers from different countries have developed trade routes, found out new countries and experienced cultural exchanges. It has helped to build cross-cultural relationships as well as promoted trade and commerce among countries. After World War II, the United States of America helped to build a global economic order governed by mutually accepted ideas. Its intention was to create a better world where countries, seeking to co-operate with one another, will come together to promote prosperity and peace.

Globalization encourages each country to specialize in their best production by using the least amount of resources. It makes production more efficient, promotes economic growth and lowers prices of goods and services, making them more affordable for lower income class people. Apart from that, consumers get better products with more variety.

The term 'Globalization' can be studied in relation with economics, commerce, trade, science as well as other fields. But what are its implications with Geography?

> "In Geography, globalization is defined as the set of processes [Economic, social, cultural, technological, institutional] that contribute to the relationship between societies and individuals around the world". [1]

The definition shows how it is a progressive process which affects development of humanity. But the massive development of transport, that has been the basis of globalization, is also responsible for serious environmental issues. Global economic growth and industrial productivity have big environmental consequences as they contribute to green-house gas emissions, global warming, air pollution, depletion of natural resources, deforestation, destruction of eco-systems and loss of biodiversity. The worldwide distribution of goods has also created a big garbage problem, specially, plastic pollution. What Bill Gates, owner and former CEO of Microsoft, has said in this connection, can be applied in true sense here:

> "Globalization is not only something that will concern and threaten us in the future, but something that is taking place in the present and to which we must first open our eyes."[2]

Deep introspection by each one of us as global citizens of the world is expected now. Generally, we relate two major terms, Globalization and Sustainable Development with each other. But what is sustainable development?

> "Sustainable development can be defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[3]

The development, expected through this definition, is not gained by sacrificing the basic elements of nature like air, water, soil and nature in general. If we want any concrete, sustainable development of mankind, we have to safeguard nature and protect it on worldwide scale. We have already made great harm to nature and have been witnessing its dreadful effects, prominently, for last two years. Worldwide climate change, flood situations, landslides, increase in temperature and mainly, the deadly Corona virus, has drastically changed our lives. Technology and medical science could not handle it despite many advances and innovations in it and we had to face global lockdown in its initial and regional lockdown in later stages. Albert Schweitzer has rightly commented:

> "Man has lost the capacity to foresee and to forestall. He will end by destroying the earth."

Here, we have taken a brief glance at some major natural disasters in India and Maharashtra from 2013. Through these disasters, nature has tried to give us indications but still, we are deaf.

1. Uttarakhand tragedy—Uttarakhand is home of the fragile mountainous region of the Himalayas. In June 2013, Uttarakhand suffered one of its worst natural disasters which claimed the lives of thousands of people and animals. The Kedarnath area was the worst affected region of landslides and flood.
2. Disaster in Malin village—On 30 July 2014, a landslide occurred in the village of Malin in the Ambegaon taluka of the Pune district. The landslide, which killed at least 151 people when they were asleep, was caused by a burst of heavy rainfall.
3. Taliye tragedy—Seven years after the tragedy of Malin, a similar tragedy occurred in Taliye village of Mahad Taluka in Raigad District on July 29, 2021. It is observed that the landslides in Malin and Taliye occurred after 2 or 3 days of heavy rainfall in the month of July.
4. Mumbai landslides—Apart from Taliye, the 2021 Mumbai landslide was a series of landslides that occurred in Chembur and Vikroli on July 18, 2021.
5. Flood situation in Maharashtra—This year, Maharashtra witnessed high-intensity floods due to the incessant rains. Both rural and urban areas of Kolhapur, Sangli, Satara, Pune and Mumbai districts along with Chiplun and Raigad areas in Konkan region were badly hit by floods.

Now, let's see the ground reality. The National Ganges River Basin Authority had notified 130 km stretch from Gangamukh to Uttarkashi as an eco-sensitive zone on December 12, 2012 prohibiting activities such as setting up of hydro-electric power plants of more than 25 MW, extraction of river water for new industrial purposes, stone quarrying, deforestation, mining and burning of solid waste. In Rudraprayag town, no structure is allowed within 100 metres from the river's banks. But the Central and State governments have paid no heed to the instructions and continued the project. As the

hydro-electric project was dumped on the river bed, the river Mandakani shifted its course and washed away structures.

The Western Ghats, including the Deccan traps, is an inactive mountain range. Here, topography, geology and geomorphology including slope, land-use and land-cover, drainage and soil properties are the main influencing factors for the occurrence of landslides. Human intervention such as steep stone cutting and deforestation also affects the rate of weathering. The reports have revealed that in Malin and Taliye, mountain was disturbed by deforestation and slope cutting by locals. In Malin, the Padkai scheme of farming involved flattening of slopes and uprooting of trees which disturbed the ecology hillock.

When natural disasters take place, common people suffer the most. Now, we cannot depend only on government's schemes to prevent such incidents. We have to take initiative and work in our local areas. There is an urgent need of environmental agenda which should be followed by every citizen. In case of rural and hilly areas, Sarpanch of the village can bring perceptible changes with the help of villagers.

Here we have suggested some points of the environmental agenda to be followed by each one of us:-

1. **Wind Energy:** The energy generated by wind-power is competitive and less expensive than coal-generated electricity. As per the records of Maharashtra Energy Development Agency MEDA, India is the fourth largest producer of wind power in the world. Maharashtra is also home to the 259 MW Vankusawade wind park, which is one of India's largest wind power production facilities. As wind energy is a clean and sustainable fuel source. If energy is produced by using wind, it has fewer effects on the environment than many other energy sources.
2. **Solar Energy:** Solar energy is also called Green Energy. Generally, it is used for heating water for domestic use, heating space in buildings and generating electrical energy. It is a renewable source of energy which is sustainable and totally inexhaustible. Because of India's geographical location, we get solar energy for throughout the year. So we should get benefit of this energy which is freely available to us. Solar technology is cheaper than conventional power generation all over the world. It eliminates poisonous gases responsible for millions of premature deaths every year.
3. **Crop-rotation:** Industrial Agriculture is immensely damaging soil, water, air and the climate. Crop rotation is an ancient way of farming. Being chemical-free, it maximizes the long-term growth potential of land. The practice in which different types of crops are grown alternately in the same field or soil is called crop rotation. In crop rotation cereal crops like wheat, maize, paddy, and millet are grown alternately with leguminous crops like pulses, peas, beans, groundnut, and clover in the same field. It prevents depletion of nutrients in the soil. Farmers should follow it seriously.
4. **Water efficient Fixtures:** Edible water available on the Earth is limited. We can reduce water usage for essential purposes up to 50% with the use of water-saving fittings and fixtures.
5. **Green Spaces:** Green spaces like lakes, forests, gardens and parks are fundamental to sustainably developed urban areas, making them cooler and reducing air pollution. In every town and city, such green spaces should be created.
6. **Terracing of land:** All over the world, human beings have destroyed nature for their benefit. Now, we are witnessing the diverse effects of deforestation. The time has come to follow the slogan "One Child, One Tree". We have to plant as many trees as possible to reduce soil erosion and land sliding.
7. **Miyawaki Forest:** Miyawaki Forest is named after Akira Miyawaki, a Japanese botanist. He was an active specialist in restoring the natural vegetation on degraded land. The largest Miyawaki Forest in India is located in Hejjalla, Bengaluru.

   These forests reduce noise and dust emissions, absorb 30% more carbon dioxide and remain 30% greener than conventional forests. We can also create Miyawaki Forests on the minimum land available to us and plant native species of trees. The project can be undertaken by schools and colleges to create environmental awareness among young generation.

8. **The Concept of Deverai:** In Maharashtra, small patches of forests in the Ghats are protected by local people as 'Sacred groves'. They are called 'Devarai' being dedicated to the deity in the grove. The vegetation in Deverai helps to prevent soil erosion, to purify air and enhance precipitation. They also serve as store house for Ayurvedic medicines. Some communities, NGOs, naturalists or environmentalists help in the maintenance of Devarais. Well-known Marathi actor Sayaji Shinde has already taken initiative in tree plantation and has established his own trust named Sahyadri Devarai.

   If every college and school creates one Miyawaki and every villege restores its own Devrai, many trees of indigenous species helpful for local climate and need can be planted. It can save our Mother Earth from erosion.

   Norman Myres has presented such concept in his book, GAIA: An Atlas of Planet Management,

   > "Climate is a fragile resource, susceptible to all manners of human intrusions. True, certain Gaian principles help Earth to look after its own. Increased carbon dioxide levels in the atmosphere stimulate plant growth through enhanced photosynthesis, so carbon dioxide will foster a fertilization effect. But the compensatory capacity of Gaia is all too limited for the immediate future."

Conclusion:

According to Madhav Gadgil, a well-known Indian ecologist, writer, academic and the founder of the Centre for Ecological Sciences, the present system of governance of the environment should be changed. He proposes a bottom-to-top approach (right from Gram Sabhas) rather than a top-to-bottom approach. He also asks for decentralization and more powers to authorities.

The central and respective state governments, politicians as well as local leaders should take into consideration the reports submitted by experts and environmentalists. They should not think of their personal profit but about long-term effect of damage done by human beings to nature. We, as sensitive and conscious citizens of India and of the Globe, have to do things on personal level and save our Planet.

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Application Of GIS For Developing Micro Watershed Planning In Drought Prone Area: A Case Study

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Abstract

Today rainwater harvesting system is very important for semi-arid geographical area in world. But success of these systems mainly depends on identification of suitable sites and technology. However, the selection of appropriate sites for rainwater harvesting potential on a large scales present great challenge. It is necessary of all physiographic and climatic data in the study region. Remote sensing (RS) and Geographical Information Systems (GIS) help to facilitate this task for large areas and permit rapid and cost-effective sites survey. Integration of Remote Sensing (Floyd, 1986) GIS techniques provide reliable, accurate and update database on land and water resources, which is a prerequisite for an integrated approach in identifying suitable sites for water harvesting structures (Meijerink et al. 1994). A study was conducted at Satara district in Maharashtra. The overall objective of the study was to firstly generating various base map layers then gets final map of the suitable surface rainwater harvesting potential sites using RS and GIS and limited field survey.

Keywords: Rainwater Harvesting, Potentiality, Micro-Watershed, GIS & RS

Introduction

Surface rainwater harvesting practiced very widely in the drought prone tahsils of Satara district. It is found many percolation tanks constructed a post-independence of India, are still in use. We find that the surface rainwater harvesting structures are more prevalent in area covered with basalt hard rock in the region. The water harvesting is mostly done for control of the runoff, to maintain groundwater level, to increase the vegetation, to minimize the sedimentation in the reservoirs or to store at the time of excess, and to reuse whenever required. In the case of designing and locating, the water harvesting site is very important. The field survey technique is important in geographical study but it consumes time and money but with the help of remote sensing GIS and GPS it is and better mean of data acquisition (Martin, 2007). The remotely sensed data in addition to collateral data constitute requisite integrated information of watershed development on suitable basis. In recent years, remote sensing technology made great achievement and contributed significantly in the management of natural resources.

Objectives

1. To using GIS and Remote Sensing elements for planning of surface rainwater harvesting in Micro-Watershed Basis
2. To analysis the slope and drainage for suggesting new sites for constructing surface rainwater harvesting structures in micro-watershed basis.

The Study Area

The watershed IWMP-3 BM 85 includes Girvi, Bodkewadi and Vinchurni villages in Phaltan taluka of Satara district (Fig. 1). These villages are situated at the east side 12 to 20 km from phaltan taluka place. The average rainfall of the area is around 475 mm. The average maximum and minimum temperature of the area is 42^{o}C and 19^{o}C. The rainy season is most humid than the rest of the year. The evaporation rate is high in the summer season while it is almost nil in the rainy season. Once in a five year there is frequency of drought in the area which affects the agriculture activities. In general, there is Scarcity of water in the month of April to June. There are three watershed committees. Total geographical area of watershed is 4310.09 ha from which 3557.84 is to be treated with different soil and water conservation activities. The total geographical area contains private land (3557.84 ha) including forest land. The cent per cent area under cultivation is rain fed which is 1639.26 ha. Uncultivated waste land is 1036.00 ha and 882.58 ha area is temporary and perm ant fallow land respectively**.** The population of the Cluster increased form 4641 in 1981 to 6141 in 2001.

Data Base and Methodology

The satellite data used in the study is acquired from Landsat ETM+ in the form of false color composite (FCC). The Survey of India (SOI) toposheets 47K/5 of 1:50,000 scale to prepare base map, drainage and water body layer and for field work and ground truth verification. The database is created using various techniques for the identifying rainwater potential sites; the drainage map is digitized from SOI toposheet using ArcMap software. The weighted overlay method used for the analysis and preparation of the surface rainwater harvesting using various conservation structures and zonation map was prepared.

Elements of Micro-Watershed for Using GIS and RS

i) Size & Shape

The size means the areal extent of a watershed which varies from micro to large projects. Each watershed is behaving differently from other in terms of runoff and its other characteristics. Hence in watershed development the size is the important phenomena. Total geographical area of watershed is 4310.09 ha from which 3557.84 is to be treated with different soil and water conservation activities.

The shape of the watershed is varied at micro W/S wise from oval to elongate Generally the watersheds are having their own shapes e.g. it could be square, palm shape, rectangular, oval etc. The shape of watershed controls the length, width ratio and it also affects the runoff characteristics. In other words, if watershed is longer then, the greater is the time of concentration. On the contrary, the longer the time of concentration, the greater time available for the water to infiltrate, evaporate and get utilized by vegetation. BM 85IWMP-3 watershed has divided into 5 micro watersheds. The micro watershed is of small size as compared with watershed IWMP 2 and 3.

ii) Digital Elevation Model (DEM)

Any digital elevation is representation of the continuous variation of relief over space is known as a digital elevation model (DEM). A digital elevation model is an ordered array of numbers that represent spatial distribution of elevations above some arbitrary data in the landscape (Moore et al 1993). DEM describes the elevation of any point in a given area in digital format. The minimum height from mean sea level (MSL) is 218 m and the maximum height is 1050 metre. The plateau region of the watershed is having height between 634 to 842metre. The low land slope having height between 426 to 634metre (Fig. 2). The heavy rainfall and steep sloppy lands are the major reasons for soil erosion. The decrease in the vegetation due to deforestation and increase in industrial area are the second most reasons for soil loss.

iii) Slope

This is a very important characteristic of a watershed because it determines runoff volume, soil loss, infiltration, etc. Based on average slope site selection of check dam and other treatment plans can be implemented. The slope map of BM 85 watershed is prepared for slope analysis. In this map total seven group of slopes have found (Fig. 3). Preparation of slope map with the help of contour lines is digitization on SOI top sheet. The watershed is having the hilly topography. The southern side of watershed in village Girvi is occupied by the many hills and steep slope is around 35 to 50 per cent. This site is suitable for runoff harvesting structures. The middle part of the watersheds near Bodkewadi village having moderate slope (15 to 35%) found reserve forest land. Northern part is having gentle slope (3 to 15%) with small gullies and rills. This lower part the crop cultivation is done around Vinchurni percolation tank (Fig. 3). The length of main stream is 900 to 3000 m. The slope of the upper ridges is very steep about 8-10 per cent and at the ground level it reduces to 1 to 3 per cent.

iv) Drainage

The overlay analysis of drainage was carried out by superimposing the geomorphology and drainage thematic layers for identification of the suitable sites for water harvesting structures. The database so generated was also helpful in exploring the possibility of artificial recharge in the study area.

Table – 1

Stream Order and Bifurcation ratio of BM 85/3 Watershed

Stream Order	Number of Streams	Bifurcation ratio	Length in Km
1st	99	13	52
2nd	25	11.5	19.42
3rd	09	10	08
4th	02	03	05.60
5th	01	01	02.34
Total	136	Avg. 7.7	87.36

Source-based on Survey of India toposheet number 47 K 5

The drainage is digitized from SOI toposheet using GIS techniques and stream orders are given by Strahler's method (1964). The BM 85/3 micro watershed having stream order stream order upto 5th order (Fig.4). The bifurcation ratio is not the similar one to another due to irregularities in topographic features of drainage basin. 7.7 is the average bifurcation ratio of the selected micro watershed. Drainage density depends upon the physical and climatic characteristics of the basin. The total length of the stream is 87.36 km (Table- 1).

v) Soil

In watershed programme conservation of soil and moisture is important. The soil texture of the watershed area is mostly from sandy clay to sandy soils. The land occupying maximum area of the watershed is having varied slope range from 1 to 3 and 3 to 5 per cent.

The soil in the watershed area is the phosphorus and potassium while it is low in nitrogen. The texture varied from gravelly to loam. The land is divided into vegetation due to deforestation reasons for the soil loss.

This is plain and cultivated land in medium. But soil and water conservation measures implemented are less. There is scope to increase area under cultivation by implementation various soil and water conservation programmes. Along with these irrigated areas will be increased. During PRA it is observed, that every village has given first priority to Compartment bunding activity. So, the more area will bring under cultivation.

The BM 85/3 watershed is situated in the medium rainfall area and gently elevated topography. The soils of this reason are light and shallow which will become erosive due to the rainfall pattern.

The soil becomes infertile due to over erosion. The water table went deeper and deeper due to exploitation. Both of the problems are more serious in the project area causing hazardous effects on the environment and human life. The mechanical measures adopted are Continuous contour trenches, Compartment Bunding, nala bund, cement nala band, etc. which will restrict the water flow caring soil and control soil erosion.

vi) Geohydrology and Lineaments

The study area is covered by Deccan Trap basaltic flows of Upper Cretaceous to Lower Eocene age. These flows are further classified as simple and compound type. The vesicular, amygdaloidal, jointed / fractured and hard massive basalt are the various forms of basalt seen in the study area. In general, depth of weathering of these flows varies from 3 to 9 m (CGWB report). Basically, the vesicular and massive rock structure is also suitable for recharge and storage RWH structures like CCT, loose boulders, Gabion structures, check dams and percolation tanks etc. Fractures, rock cleavages and fault/thrust play a vital role in affecting the surface storage, groundwater recharge and base flow and consequently, the efficiency of structural measures.

vii) Ground Water Status

The field survey clearly indicated that there is overexploitation of groundwater. There has been a steady decline of groundwater table in the last few years. More than 50% of the watershed area had poor groundwater potential. Only about 5% of the area had good groundwater potential. The groundwater situation in the sub-watershed is thus, grim. There is, however, ample scope for artificial groundwater recharge.

The well recharging programme has been included in the programme to raise the ground water table. There is scope of artificial recharge for 138 wells &40 bore wells in the watershed. The watershed is under semi-critical category as per the GSDA guideline

Watershed Development Planning

Planning and treatment of watershed should naturally start from the ridge and ends with the valley portion. Typically, the ridge portion of the watershed is forest land and followed by *Gayaran*or community land and possibly private. The water table went deeper and deeper due to exploitation. Both of the problems are more serious in the project area causing hazardous effects on the environment and human life. The mechanical measures adopted are continuous contour trenches, compartment bunding, nala bund, cement nala band, etc. which will restrict the water flow caring soil and control soil erosion.

Proposed Water harvesting Structures

The water harvesting structures like cement nala bund, earthen nala bunds are planned in the project. The farm pond schemes have also incorporated as a convergence from GoM for water harvesting.

The proposed treatment for the cultivable land is Compartment bunding. The net planning of every compartment bunding is finalized on the field after discussion with the respective farmer Grass

seeding is proposed on the bunds. Grass seeding is proposed on the bunds for stabilization. Earthen nala bunds are low head structures. We can harvest the water table and recharge to ground water for agriculture purpose. This structure is useful for domestic as well as agricultural use for village community.

Table - 2

Suitable Rainwater Harvesting and Ground Water Recharge Structures Suggested in Micro-Watershed Area using GIS Technique

Slope (%)	Geographical Area in Perc.	Elevation in Mts.	Drainage Density & Stream Orders	Ground Water Status	Suitable rainwater harvesting and ground water recharge structures
0 - 1	1%	200 - 300	Low density (3^{rd} , 4^{th} & 5^{th})	Good Potential	Farm Ponds & Percolation Tanks
1 -3	12 %	200 - 300	Low density (3^{rd} , 4^{th} & 5^{th})	Moderate to Poor	Farm Ponds & Percolation Tanks
3 – 5	35 %	200 - 300	Moderate density (3^{rd} & 4^{th})	Semi-Critical	K. T, Wares& Percolation Tanks
5 – 10	27 %	300 - 400	Moderate (3^{rd} & 4^{th})	Semi-Critical	K. T. Wares & Cement Check Dams
10 - 15	11 %	400 - 600	High density (3^{rd} & 4^{th})	Semi-Critical	Cement Check dams
15 - 35	8 %	600 - 800	High density (1^{st}, 2^{nd} , 3^{rd} & 4^{th})	Poor Potential	C.C.T., Recharge Pts, Gabian structures, Loose boulders, Earthen bounds
35 - 50	6 %	800 - 1000	High density (1^{st}, 2^{nd} , 3^{rd} & 4^{th})	Poor Potential	C. C. T., Gully Plug, Loose boulders, Earthen bounds

Source – based on GIS Maps

Conclusions

According to W.L. Strange, the watersheds are divided into three types namely, good catchment, average catchment and poor catchment. The BM 85 cluster 3 watershed falls into average catchment. The total area of the watershed is 4310.09sq km and the water available through surface runoff is 1902.49 TCM. The area under > 20% per cent is 845.09 ha. and the runoff available is 566.88 TCM. The area under 5-20% slope is 1020 ha. with 515.30 TCM runoff availability

BM 85 / 3 watershed is covered with previously EGS work has been carried out mainly during the scarcity/drought years to provide employments to the villagers. No proper watershed principle was followed during implementation. These works are scattered in nature. The major activities carried in this scheme were Nala bunding, Compartment bunding, CCT, etc.

GIS based site suitability analysis by giving weightages to individual parameters of different thematic layers which are favorable for artificial recharge is recommended prior to implementation stage. Technical guidelines for selecting suitable sites for conserving water are given by the Integrated Mission for Sustainable Development (IMSD, 1995).

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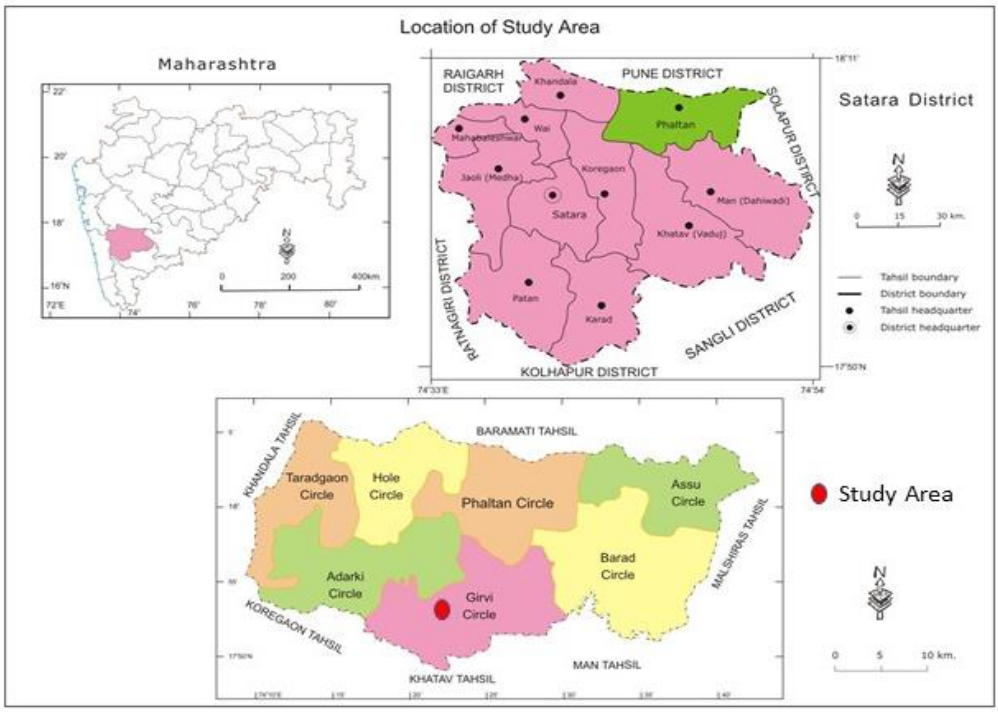

Fig. 1

BM 85/3 Micro-Watershed Development and Planning Maps created with using GIS tech.

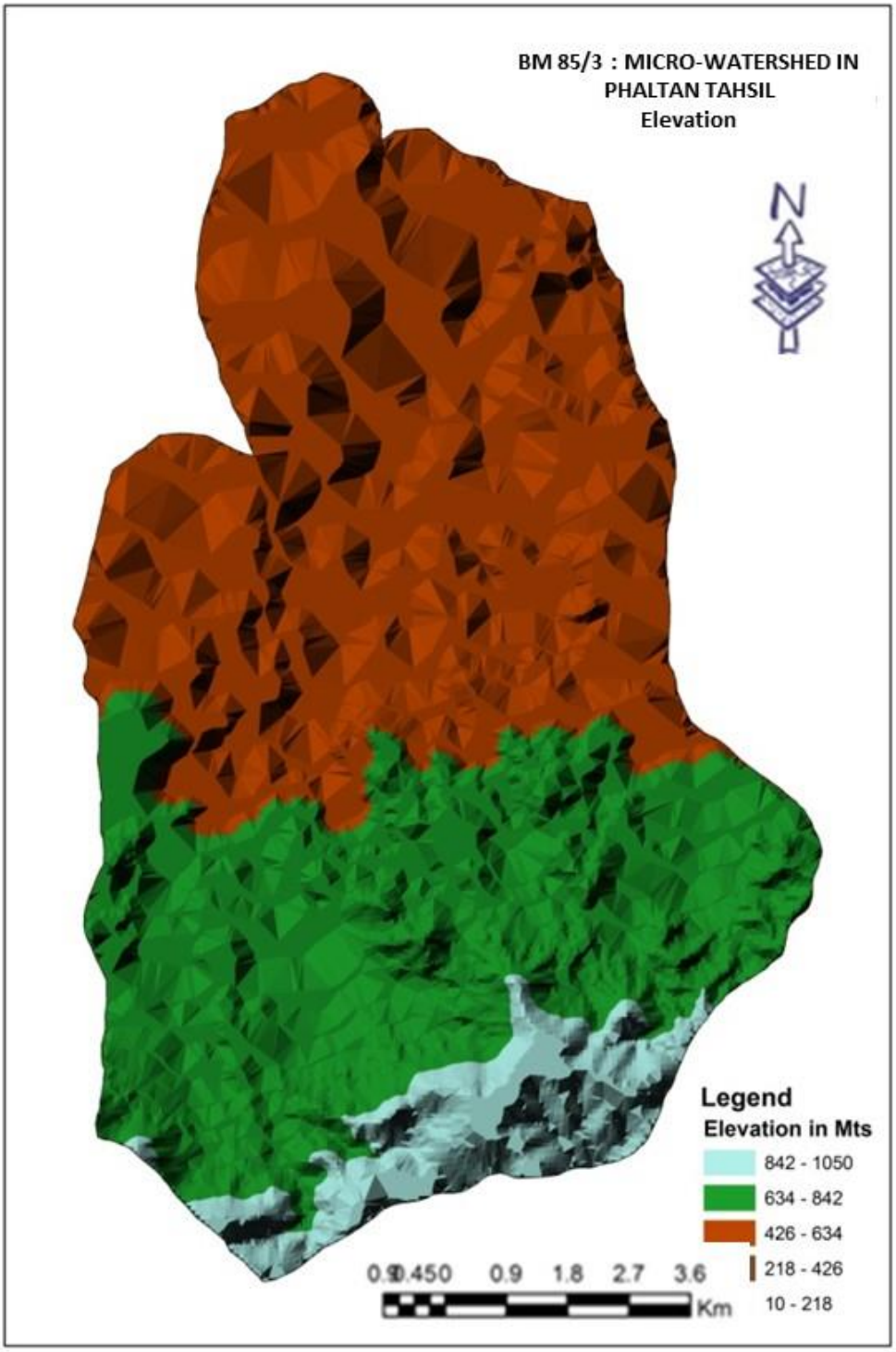

Fig. 2

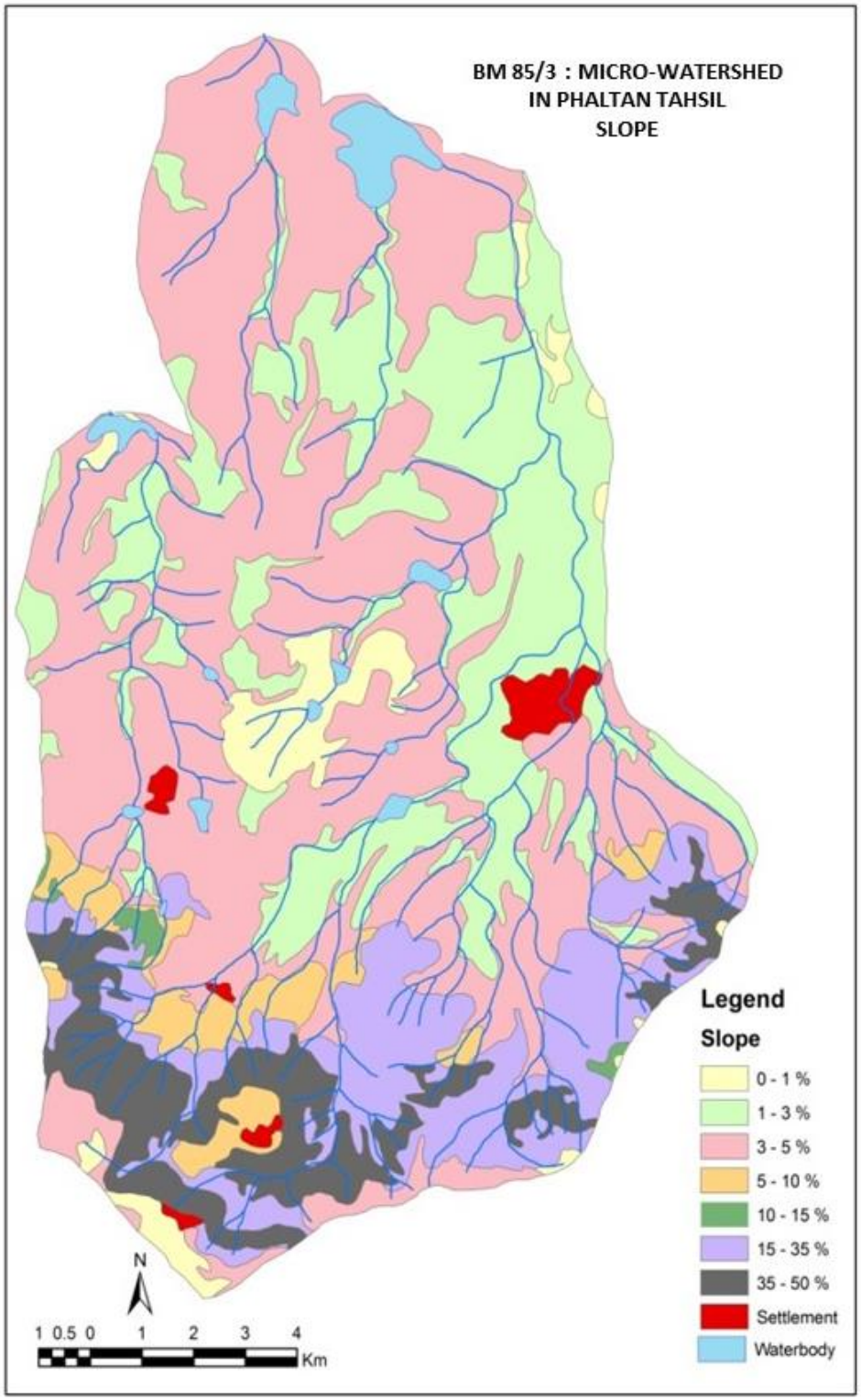
BM 85/3 : MICRO-WATERSHED
IN PHALTAN TAHSIL
SLOPE
Legend
Slope
0 - 1 %
1 - 3 %
3 - 5 %
5 - 10 %
10 - 15 %
15 - 35 %
35 - 50 %
Settlement
Waterbody
N
1 0.5 0 1 2 3 4
Km

Fig. 3

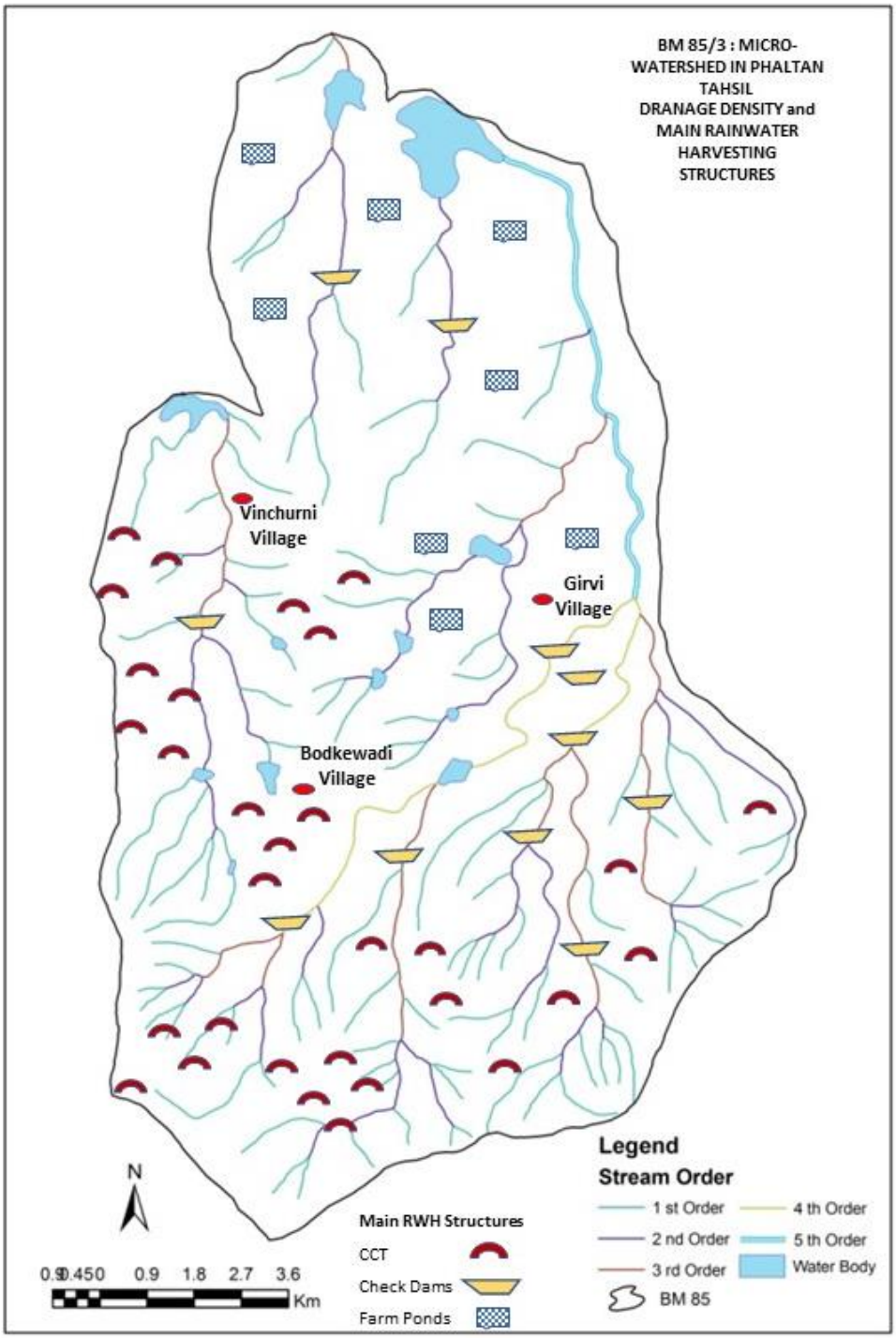
BM 85/3 : MICRO-WATERSHED IN PHALTAN TAHSIL
DRANAGE DENSITY and MAIN RAINWATER HARVESTING STRUCTURES
Vinchurni Village
Girvi Village
Bodkewadi Village
N
0.9 0.45 0 0.9 1.8 2.7 3.6
Km
Main RWH Structures
CCT
Check Dams
Farm Ponds
Legend
Stream Order
1 st Order
2 nd Order
3 rd Order
4 th Order
5 th Order
Water Body
BM 85

Fig. 4

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A study of water Surplus and deficit in Shirur Tahsil of Pune District.

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Abstract:

The distribution and development of water resources are uneven in the Pune district. Some part of Pune district is also known as rain shadow zone. Agriculture is a dominant economic activity in the region solving agriculture water demand leads to the prosperity of the area. Alternative water strategies are available like improve surface water storage, water distribution system, changing irrigation systems. It has been long observed that by adapting changing long-duration paddy crops to short-duration crops and changing water-intensive crops to commercially valuable crops for comprehensive water management the entire tahsil will free from water shortage and drought condition. The shirur tahsil is known as the drought-prone region of the district. The fact-finding committee has declared shirur as a drought-prone region in 1972. The shirur tashil has been selected for the present study. Agriculture is the main activity in the tashil. The study area has less amount of rainfall. This particular region is known as the rain shadow region.

Introduction:

The neglect of practicing traditional water conservation measures and unscientific understanding of geohydrological characteristics of river basin lead to the deteriorating condition of the important resources which in turn affects to the hand to mouth economic system in several parts of semi-arid tracts of India (Kumarswamy 1984 and 1985 Kumarswamy et al 1995 and Pearce 2006). Water, the extraordinary natural phenomena, has science and human dimension, both in equal measure(Narasimhan 2009). Water is one of the most precious natural resources and a key element in the socio-economic development of the country (Khuller 2000). The significance of water resources in the regional economic development of water resources in regional economic development hardly needs to be emphasized (Phule 2002). A person can live without food for a month but cannot live without water. Animals may live without food for more than 100 days but may die without water within 5-10 days (Rastogi -1992). The physical environment reduces the choice of enterprise, either by prohibiting the growth of certain crops, altogether by reducing the level of output to an unprofitable degree (Morgan and Muton 1971)

Throughout the continuum of human civilization, water has played a major role in its survival and development water resources are space and time-specific. Studies on the alarming rate of groundwater decline, non-availability of sufficient rainfall for infiltration and continuous extraction of groundwater to substitute surface water for agriculture, industries and drinking purposes lead to the desertification process in several parts of Maharashtra. Irrigation is most essential without it crops cannot be grown. Even those crops, which are grown during the rainy season, also depend upon irrigation because farmers try to irrigate the crops in time so that crops may be ready in time and give higher yield (Saptarshi 1993, Kadam 2000, Bhagat 2002, More 2016).

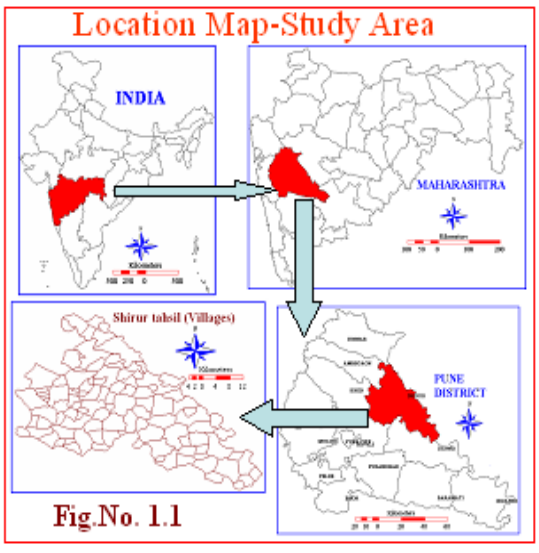


Fig.No. 1.1

Location of the study area

The area selected for the present research is Shirur tahsil of Pune district. The tahsil extends from 18°49’ N to 19°14’ N latitudes and from 74°22’ E to 75°3’ E longitudes. The tahsil lies in the northeast part of the Pune district of western Maharashtra. The tahsil extends from northwest to southeast with an elongated shape. The tahsil headquarter is at Shirur, which is located at a distance of 65km from the district

headquarter Pune. It is located on the western bank of the river Ghod. The tahsil is bounded by *Khed* tahsil to the north, *Ambegaon* tahsil to the north-east, *Parner* and *Shrigonda*tahsils of Ahmadnagar district to the east & south-east respectively, *Daund* tahsil to the south, *Haveli* tahsil to the south-west, *Ambegaon* tahsil to the north-west.

The tahsil lies in the drainage basin of the river *Bhima*. The river *Ghod* forms the north-eastern & eastern boundary of the tahsil. The river *Kukdi* forms the eastern boundary of the tahsil. The river *Bhima* forms the southern south-western boundary of the tahsil. Pune Ahmadnagar state highway passes west-east through the tahsil from *Koreagaon Bhima* to Shirur. Shirur is well connected by roads to the surrounding villages on all sides.

The tahsil comprises 117 villages having only one urban center i.e. Shirur. The population of the tahsil according to the census (2011) is 310590. The Shirur tahsil is the drought-prone area as decided by fact-finding committee (FFC, 1973). The major economic activity of the tahsil is agriculture.

Objective:

1) To study the water surplus and deficient in the study area
2) To study the water requirement of different crops.

Data Collection: The present research is based on primary and secondary data. Primary data has been collected from field observation, questionnaire, and interview of the expert in the agriculture sector. Secondary data has been collected from the census handbook of pune district of shirur tahsil, socio-economic review, tahsil office shirur.

Methodology: The present study is based on the village wise data of irrigation facilities. The present study water requirement of different crops in the shirur tahsil.

Appraisal of water resources:

It is necessary to estimate and quantify water available in the tashil. The methodology adopted has been explained. There are five major sources of water in the study area. The attempt has been made to quantify the availability of water resources in the region. The following lines are devoted to understanding how the amount of water has computed in each village. Water from

Rainfall (Rainwater):

The climatological approach was adopted to quantify the rainwater in the tahsil. The amount of rainfall the amount of mean annual rainfall is available for only one station that is shirur in the study area. The data for the same parameter at this station around the tahsil like A.nagar, Pune, Parner, Ambegaon (Ghodegaon) Khed have been taken in to account while preparing the isohyetal map. Thus, the rainfall at each village can be considered for the estimation of rainwater in that village by simple product of rainfall water and total geographical area in hect. Thus, the value of rainwater in mh. in each village has been adopted. The total amount of rainwater assuming that the rainfall is normal has been estimated to be about this much 37389.77mh.after subtracting 50% loss by way of evaporation and 10% infiltration as suggested by (Mishra 1978). It is also suggested in

Table No.1.1, The available water in the shirur tahsil

Sr. No.	Village Name	TGA	Rainfall	Available Rain water	Available canal water	Well	Tank Lake Other	River	Total Available water
1	Kathapur K	674	610	164.456	1220.4	9.75	42.9	7.8	1445.306
2	Pimparkhed	2007	605	485.694	2037	43.45	52.14	43.45	2661.734
3	Jambut	1264	695	351.392	760.15	35.99	3.66	19.52	1170.712
4	Saradwadi	638	595	151.844	779.745	8.505	51.435	9.315	1000.844
5	VadnerKh.	556	585	130.104	775.205	6.225	29.05	12.45	953.034
6	Fakate	1442	590	340.312	907.06	0	12.3	8.2	1267.872
7	Chandoh	1021	600	245.04	238	8	36	52	579.04
8	Savindane	1939	600	465.36	1700	0	0	0	2165.36
9	Echakewad	290	600	69.6	142.8	0	0	0	212.4
10	Kawathe	5714	590	1348.504	409.2	0	32.8	32.8	1823.304
11	Munjalwadi	819	585	191.646	102.45	6.225	0	0	300.321
12	Ravadewad	723	580	167.736	0	47.04	0	3.78	218.556
13	Nimgaon D	1121.1	580	260.0952	0	43.68	0	47.46	351.2352
14	Takali Haji	3302	580	766.064	779.76	126	0	299.46	1971.284
15	Mhase Bk.	534.2	565	120.7292	0	18.71	0	11.745	151.1792
16	Dongargan	791	570	180.348	0	8.6	0	14.62	203.568
17	Amdabad	1281	570	292.068	0	67.08	0	57.19	416.338

18	Malthan	2356.9	580	546.8008	0	54.6	24.78	0	626.1808
19	Lakhewadi	1033	580	239.656	41.382	7.644	7.14	0	295.822
20	Thapewadi	578	605	139.876	0	26.86	0	0	166.736
21	Putanwadi	918	600	220.32	0	0	40	0	260.32
21	Pabal	4628	605	1119.976	2206.75	177.8	0	0	3504.476
22	Malwadi	733	600	175.92	0	35.6	0	0	211.52
23	Midgulwad	599.7	590	141.5292	0	27.88	0	0	169.4092
24	Shastabad	206	580	47.792	0	6.3	0	0	54.092
25	Kanhur me	2633	590	621.388	0	138.6	0	0	759.968
26	Chincholi	1118	580	259.376	0	16.8	8.4	0	284.576
27	Khaire Na	733	600	175.92	0	50	0	0	225.92
28	Choudharb	545	605	131.89	0	21.33	33.575	0	186.795
29	Zogadewad	581	600	139.44	0	22.4	2	0	163.84
30	Thitewadi	841	605	203.522	0	17.78	47.4	0	268.697
31	Kendur	4396	600	1055.04	0	219.2	0	0	1274.24
32	Mahadeo	587	605	142.054	0	0	0	0	142.054
33	Putanwadi	918	600	220.32	0	0	40	0	260.32
34	Sukrewadi	530	595	126.14	0	0	0	4.86	131
35	Parhadwadi	450	595	107.1	0	0	0	7.29	114.39
36	Dhamari	3567	590	841.812	0	127.1	0	10.25	979.162
37	Khairewadi	650	590	153.4	0	80.77	0	0	234.17
38	Hivare	1120	590	264.32	1534.5	52.48	3.28	0	1854.58

Sr. No.	Village Name	TGA	Rainfall	Available Rain water	Available canal water	Well	Tank Lake Other	River	Total Available water
39	PimpaleKh	586	585	137.124	0	4.565	0.83	0	142.519
40	Mukhai	1342	595	319.396	2213.25	51.03	0	0	2583.676
41	Karandi	2537	600	608.88	1530	186	0	18	2342.88
42	Jategaon K	990	590	233.64	910.47	35.26	0	0	1179.37
43	Jategaon B	926	585	216.684	853.75	14.11	0	0	1084.544
44	Varude	1238	580	287.216	0	13.44	0	0	300.656
45	Shingadwa	666	580	154.512	0	14.28	0	0	168.792
46	Waghale	839	575	192.97	856.25	46.75	0	0	1095.97
47	Pimpari Du	711	590	167.796	852.5	43.05	0	0	1063.346
48	SoneSanga	1153	575	265.19	0	16.58	0	0	281.765
49	Nimgaon B	789	570	179.892	0	17.2	0	0	197.092
50	Dhok San	1227.4	565	277.3924	0	28.28	0	0	305.6674
51	Karegaon	1298	560	290.752	860	20.68	0	0	1171.432
52	Annapur	1015	565	229.39	858.75	10.88	0	12.615	1111.63
53	Shirur	6172	560	1382.528	0	103.4	0	55	1540.928
54	Kardilwadi	198	560	44.352	0	6.6	0	4.4	55.352
55	Shardwadi	857	555	190.254	0	4.45	0	2.225	196.929
56	Tardobachi	169	550	37.18	0	3.6	0	0	40.78
57	Golegaon	1409	550	309.98	1725	9	0	11.25	2055.23
58	Babhulsar	1748	560	391.552	0	37.4	0	0	428.952
59	Ranjangaon	3019	565	682.294	1030.5	76.13	0	0	1788.919
60	Khandale	641.4	370	94.9272	907.5	8.19	6.3	0	1016.9172
61	Ganegaon	1901.8	575	437.414	2055	0	0	0	2492.414
62	Burunjwadi	864.1	580	200.4712	0	17.64	0	0	218.1112
63	Karanjawan	1159	560	259.616	1032	13.2	0	0	1304.816
64	Bhambarde	1287	555	285.714	861.25	17.8	0	8.9	1173.664
65	Apti	768.7	605	186.0254	509.25	11.06	30.53	0	736.8689
66	Wadhu Bk.	1477.3	600	354.552	850	42.4	74.4	0	1321.352
67	Wajewadi	770.9	600	185.016	0	38	0	0	223.016
68	PimpaleJa	1098	595	261.324	1191.75	44.55	0	0	1497.624
69	Rautwadi	267.7	580	62.1064	0	8.4	0	0	70.5064
70	Shikrapur	2248.4	580	521.6288	1197	25.2	0	0	1743.8288
71	Kondhapuri	1299.7	570	296.3316	1200.5	15.05	30.96	0	1542.8416
72	Kasari	1214	570	276.792	1200.5	30.1	0	0	1507.392
73	Nimgaon	2675	565	604.55	1717.5	26.1	9.135	34.8	2392.085

74	Talegaon D	4306.2	580	999.0384	2223	49.14	0	86.1	3357.2784
75	Sanaswadi	1706.8	585	399.3912	512.25	8.3	1.45	0	921.3937
76	Koregaon. B	1286.1	595	306.0918	510.75	61.97	0	14.58	893.3868
77	Dingrajwad	723.9	590	170.8404	0	76.67	0	12.3	259.8104
78	Darekarwa	554	585	129.636	0	0	0	20.335	149.971
79	Dhanore	781.4	585	182.8476	512.25	8.3	0	16.6	719.9976
80	Vitthalwadi	1340.5	570	305.634	857.5	10.75	131.15	43	1348.034
81	TakaliBh	1839.5	560	412.048	860	11.44	0	116.6	1400.088
82	Shivtakrar.M	271.6	565	61.3816	343.5	0	0	50.025	454.9066
83	Parodi	736	560	164.864	516	0	0	104.72	785.584
84	Dahiwadi	1016.1	555	225.5742	861.25	0	0	162.425	1249.2492
85	Karade	4231	545	922.358	2073	72.8	0	0	3068.158
86	Chavhanwa	1432	540	309.312	0	22.54	0	0	331.852
87	Motewadi	334.8	535	71.6472	0	72.08	0	27.9	171.6222
88	Nimone	3772.2	535	807.2508	866.25	81.38	0	33.48	1788.3558
89	Ambale	2511	560	562.464	1204	68.2	0	28.6	1863.264
90	Uralgaon	2759.1	545	601.4838	1036.5	75.08	0	56.875	1769.9338
91	Arangaon	562.1	550	123.662	345	2.25	0	146.25	617.162
92	Alegaon P	2757.8	555	612.2316	58.565	55.63	4.005	16.02	746.4466
93	Nhavara	3471.9	545	756.8742	922.485	137	0	0	1816.3142
94	Kohakdewa	876.7	540	189.3672	0	182.6	0	0	371.9872
95	Rakshewad	348.7	530	73.9244	0	15.04	0	12.22	101.1844
96	Ranjangaon	2336	535	499.904	1212.75	29.76	0	121.83	1864.244

Sr. No.	Village Name	TGA	Rainfall	Available Rain water	Available canal water	Well	Tank Lake Other	River	Total Available water
97	Nagargaon	1484	530	314.608	867.5	70.5	0	310.2	1562.808
98	Andhalgao	1116	530	236.592	867.5	98.7	0	0	1202.792
99	Kuruli	655	520	136.24	696	103.2	0	4.8	940.24
100	KolgaonDolas	749	520	155.792	0	54.72	7.2	0	217.712
101	Nirvi	2019	525	423.99	1042.5	35.63	0	0	1502.115
102	Gunat	1961	530	415.732	867.5	9.4	0	18.8	1311.432
103	Shindodi	1287	525	270.27	0	71.25	104.02	0	445.545
104	Chinchani	1349	515	277.894	871.25	53.35	53.35	21.825	1277.669
105	Shirasgaon	2514	515	517.884	1045.5	0	0	9.7	1573.084
106	Pimpalsuti	824	510	168.096	558.4	34.3	0	12.25	773.046
107	Inamgaon	2163	500	432.6	1134	75	0	157.5	1799.1
108	Mandavgan	2843	510	579.972	2268.5	325.9	0	285.67	3459.992
109	Vadgaon R	2467	520	513.136	3970.68	245.8	0	0	4729.576
110	Sadalgaon	958	510	195.432	1088.88	181.3	0	12.25	1477.862
111	Bambhulsar	868	495	171.864	525.75	120.7	0	115.14	933.449
112	Ganegaon	1327	495	262.746	1233.76	0	42.925	286.84	1826.271
113	Tandali	1108	495	219.384	743.06	54.54	42.42	126.25	1185.654
Total		**16513**	**64095**	**37389.765**	**70742.952**	**5128**	**965.54**	**3220.5**	**117446.47**

several studies especially, studies related to drought-prone tahsil that the figures like soil moisture recharge and actual evaporation may be used for estimating available rainwater in a village (Saptarshi 1992 Bhagat 2002) However it is observed in other studies like (More 2008) that in a region having potential evapotranspiration is almost double that of normal rainfall 50% loss due to evaporation can be assumed.

The present study has adopted this method which is easier than the method of computing A.E. The village wise rainwater for agriculture has been depicted in the table (Table No.1.1)

Ground Water:

Groundwater use in agriculture can be quantified based on the water requirement of the crops grown based on it. The groundwater component for a crop is nothing but the water requirement of that crop

Groundwater = water requires of that crop- Available rainwater in the cropping season.

This is to say that a crop grown in Kharif season is less water from wells in Kharif season. As the availability of rainfall is less in rabi and summer season consumption of groundwater is maximum. This kind of estimation has been observed in the studies (More 2005, Bhagat and Saptarshi 2001). However, the present study observes that the consumption of groundwater is more if a well is electrified in consumption with non-electrified wells. The field observations revealed that well irrigation supports

consecutively kharip crops; for which water consumption 20 to 30 cm and in rabbi season is about 70 to 80 cms. depending upon the crop dependent on well water. The detailed study of cropping pattern has been taken account to assume that crops dependent on well water use the water about 1.5 mt. – Rainfall.

Thus, the present study has estimated water resource from groundwater according to the following equation

The quantity of groundwater in a village in mh.under well irrigation x (1.5mt.-Rainfall in mt)

Thus village wise availability of groundwater for agriculture has been estimated and depicted in the table (Table No.1.1).The total amount of groundwater used in agriculture in the tahsil estimated to be 5127.74mh.

Canal water:

The estimation of canal water used for agriculture is also computed based on crops based on it. Considering the cropping pattern of the tahsil and hectarage under different crops irrigated by canal water may be assumed to be about 3mt per annum. Although the canals are made for seasonal irrigation. It is mainly used for sugarcane also. It may not be away from reality to assume the available rainwater should be subtracted from this. Thus, available canal water in a village has been computed using the following formula:

Available canal water in a village in mh= (4mt.-Rainfall in mm) X Hectrage under canal irrigation

The village wise available canal water has been estimated as depicted in (Table No.6.7). The total amount of canal water in the tahsil is estimated at 18042.92 mh. It is observed that it is about 50% of the available rainwater. The importance of canal water in the study region can be understood by imaging its non-availability for the present cropping pattern. It may be stated here that the role of canal irrigation quite significant in improving agronomy in the tahsil.

River water:

The river water is available mainly from 1st week of July to the last week of Feb in the tashil as revealed from the field study. However, construction K.T. wiers have improved the serenity of the streams in the region. There are some areas under sugarcane based on the river water. By and large river water is used as the conjunctive source for kharip and rabi crop. Thus it may be justified to assume the amount of river water consumes for agriculture is about 1.5mt per hects. The equation followed in the present study is given below= Available river water in a village in mh=X Hectrage under river irrigation X (1.5mt-Rainfall in mt)The village wise estimation of river water has been depicted in the table (Table No. 1.1)

Tanks and other sources: This has been estimated based on hectarage under irrigation from the tank.

Total water available for agriculture: The quantification of available water in a village has been used to quantify the available water resource in the tahsil. The detail computational work may be understood based on (Table No 1.1). The following table gives the quantification of available water resource in the study area (Table No. 1.1)

Surplus and deficit: The village wise estimation or surplus deficit water for agriculture has been computed and depicted in the map (Fig. No.1.1). It is observed that on average the majority of the villages are water deficit. The mean value (-7611.27) mh.hect speaks about a high amount of deficit water for the present cropping pattern, in other words, each village has about 1232 hect of the area facing deficiency in water resources even for the crops like jowar. The consequent effect is decreasing paisewari meaning then by very low output.

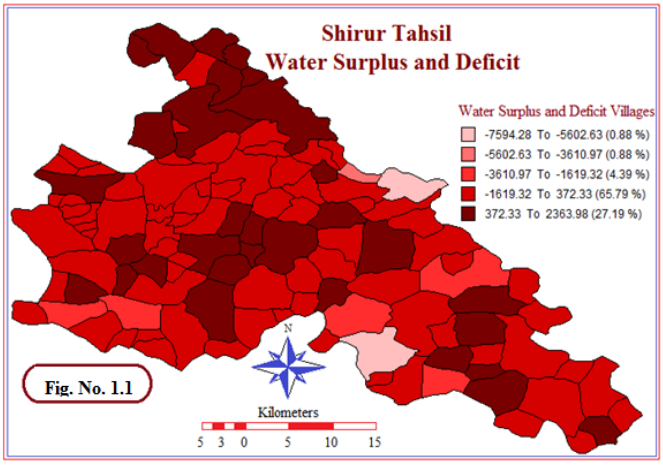
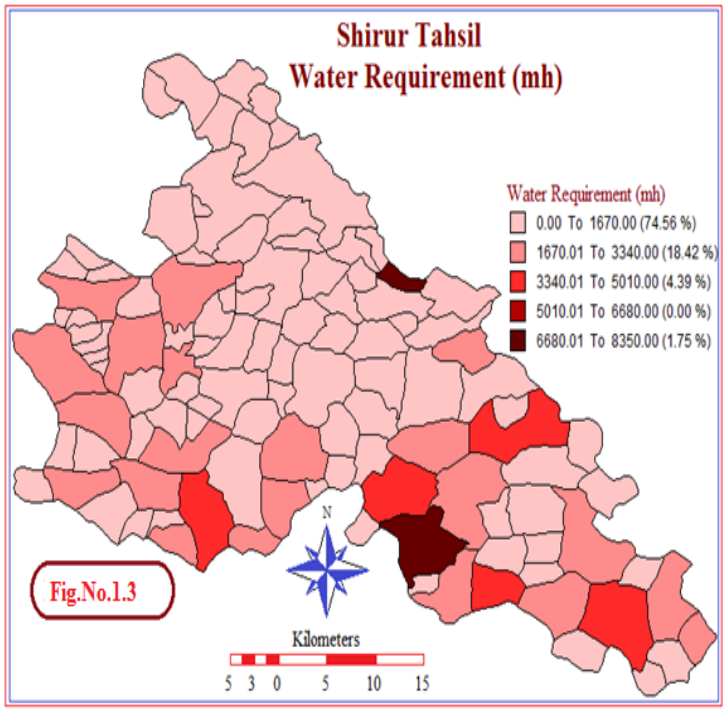
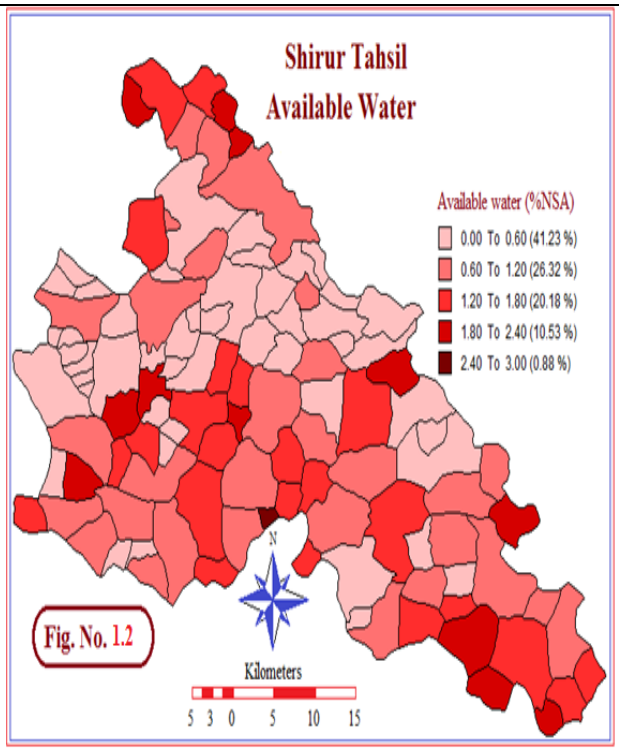


Fig. No. 1.1





Within the tahsil, it is observed that there is high variation regarding water deficiency at a micro level the value of standard deviation is as high as 1230.11 mh. This means that about 67% of villages have a maximum deficit of about -1505.89 mh to maximum water surplus of +494.11mh. This further means that it comes to deviation from means it is towards deficit values. It is portage the scenario of water resources availability in the tahsil. This can be mitigated by a strategic intervention. The present study has developed a strategy of optimization of water resources as explained in the next paragraph.

Conclusion: It is observed that there are about 117446.47 mh of water available in the tahsil. However, the present cropping pattern requires 134545.24 mh of water. This means that there is a deficit of water resources in the study area. The analysis of the requirement of water for each crop has shown that much of the water resource consumed the crops like sugarcane which is absorbing diffusion in the last decade. This kind of quantification can be used for developing a strategy for sustainable agricultural development in the tahsil.

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In Vitro Synthesis of Silver Nanoparticles from *Plumbago indica* Plant Extract and Assessment of theirAnti bacterial Activity

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Abstract

In this current work, synthesis of silver nanoparticles has been done using a variety of particularmedicinal plant extract. The green synthesis of silver nanoparticles was done by the bioreduction of silver nitrate using different concentrations of plant extract taken from *Plambago indica*. UV-visible studies were conducted to confirm the synthesis of silver nanoparticles. The peak showing the standard surface plasmon resonance wavelength in UV-visible studies confirm the synthesis of silver nanoparticles. Later, the antimicrobial assay of the synthesized silver nanoparticles was examined against bacteria i.e. *B.megaterium* and *S.aureus*. The zone of inhibition Maximized with the increase in the concentration ofsilver nanoparticles. These studies are entirelyhelpful as it shows the efficiency of green nanotechnology for the synthesis of silver nanoparticles without any toxic residuals and byproducts. Further, well organised antimicrobial activity of the synthesized silver nanoparticles proves the potentiality of green synthesis in the area of nano-medicine.

Key Words: Silver nanoparticles, Bioreduction,*Plambago indica,B.Megaterium* and *S.aureus*

Introduction

The field of nanotechnology is one of the most active researches nowadays in modern material science and technology. Nanoparticles are fundamental building blocks of nanotechnology. The most important and distinct property of nanoparticles is their exhibit larger surface area to volume ratio. An array of physical, chemical and biological methods has been used for synthesis of noble metal nanoparticles of particular shape and size for various applications. They are also broadly applied in shampoos, soaps, detergents, cosmetics, toothpastes and medical and pharmaceutical products and are hence directly encountered by human systems[1].

*Plumbago indica*commonly known as chitrak, and is well known in India and itsneighboring countries for more than 200 years as one of the most versatilemedicinal plant having a wide spectrum of biological activity . Every part of the tree has been used as a traditional medicine for household remedy against various human ailments, from antiquity *Plumbago indica* leaf extract has also been used for the synthesis of silver, gold and bimetallic (silver and gold) nanoparticles. The major advantage of using the chitrak leaves is that it is a commonly available medicinal plant and the antibacterial activity of the biosynthesized silver nanoparticle might have been enhanced as it was capped with the *Plumbago indica* leaf extract[1,2].

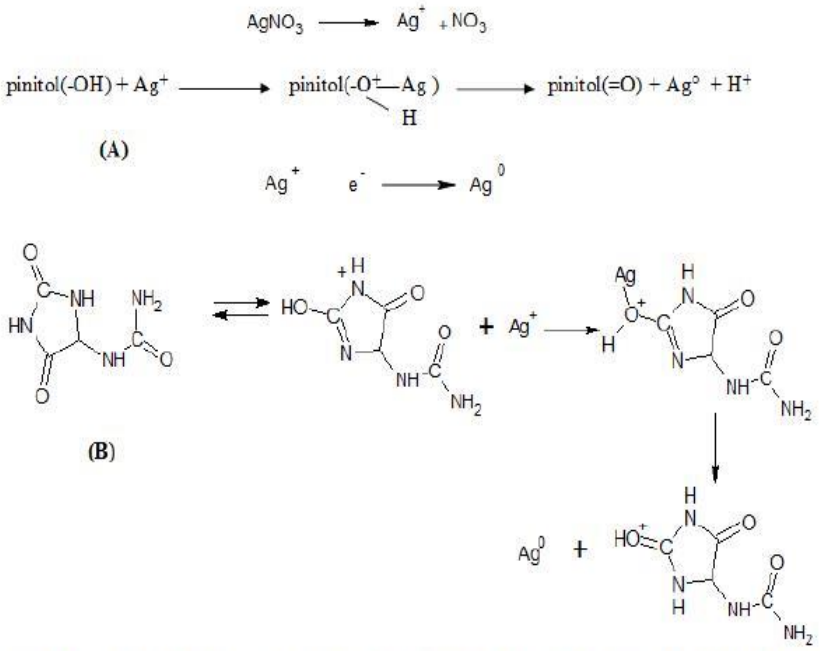
Fig:1 -*Plumbago indica* plant

We have synthesized silver nanoparticles from silver nitrate solutions using extracts of *Plumbago indica*, a plant widely found in a large region in India, as reducing agent. This plant is known to be rich in antioxidant molecules which we use as reducing agents. Silver nanoparticles grow in a single-step method, at room temperature, and with no addition of external energy. The nanoparticles have been characterized by ultraviolet visible spectroscopy. The nanoparticle diameters are in the range of 2 to 40 nm. Eco friendly methods of green mediated synthesis of nanoparticles are the present research in the limb of nanotechnology. The presentwork leads to the synthesis of nanoparticles from 1mM $AgNO_3$ solution through aqueous leaf extract of plumbago indica as reducing as well as capping agent. Synthesized nanoparticles are characterized under UV-Vis spectroscopy at the range of 400-450 nm [2].

Nanotechnology has a wide range of applications in the fields of biology, medicine, optical, electrical, mechanical, optoelectronics etc[3].Gold nanoparticles are widely used in various fields such as photonics, catalysis, electronics and biomedicine due to their unique properties[4].Gold nanoparticles have been synthesized using the barbated skullcap extract. The nanoparticles synthesized by this method have been modified to the glass electrode and this has been used to enhance the electronic transmission rate between the electrode and p- nitrophenol [5].

Mechanism of reduction of silver to AgNP's

Formation of AgNP's was noted over a time period of 30 minutes to three hours for the various concentrations. Sinorhizobial octasaccharide, geraniol, glutathione, curcacycline A and curcacycline B, polyols, polyphenols, glutathiones, metallothioneins, and ascorbates are known to reduce silver producing silver nanoparticles. The presence of metabolites like pinitol and allantoin in Pisonia grandis is reported. A probable method of reduction mechanism of pinitol and allantoin with silver nitrate producing silver nanoparticles is given Fig.2[6].



Scheme 1. Probable mechanism of reduction silver to silver nanoparticles by the bioactive molecules: pinitol (A) and allantoin (B)

Fig 2: Probable mechanism of reduction silver to silver nanoparticles by thebioactive molecules: pinitol (A) and allantoin (B)

Materials and Methods

Methods

Collection of sample

Fresh leaves of *Plumbago indica* plants were collected from nearby of residental area. Leaves were washed under running tap water and allowed for air dry in room temperature.

Fig3 : *Plumbago indica* plant leaves

Preparation of plant extract

Plumbago indica plant Leaves weighing 20 g were thoroughly washed in distilledwater for 5 min, dried, then chopped into fine pieces by using mortar & pistal and followed by filteration in a 500 ml conical flask with 100 ml of sterile distilled water up to 15 min. After the filteration, the extract was sonicated.

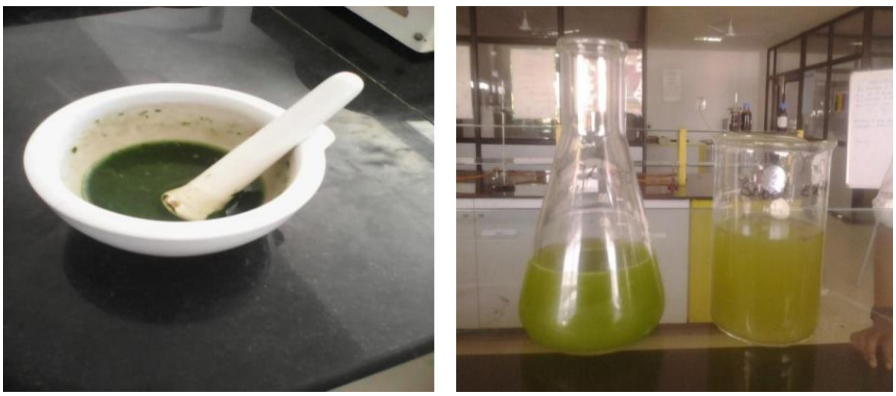


Fig4 : Plant extract

Synthesis of silver nanoparticles

1st Method

The 10ml plant extract was collected in 3 test tubes. These 3 test tubes were kept at different temperature like room temperature (37^0C), 60^0C and 90^0C. Add 1ml of 3mM $AgNo_3$ solution drop by drop in each test tube. After adding the $AgNo_3$ solution the dark brown color was observed and the test tube was removed.

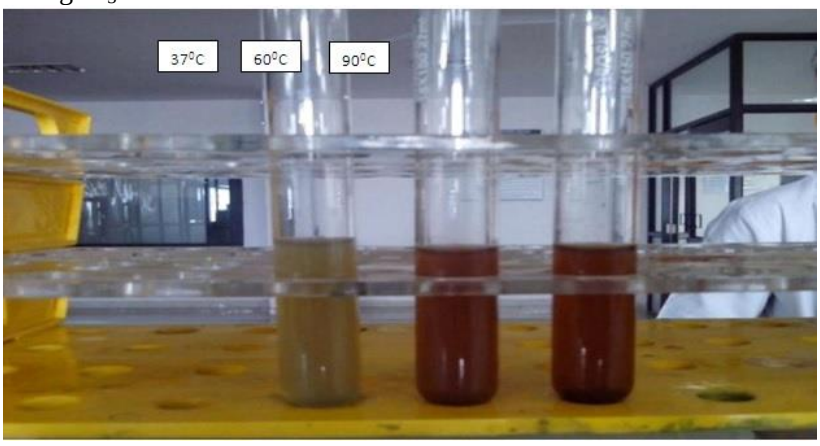


Fig 5 : Qualitative analysis of color change at different temperature (370C, 600Cand 900C) respectively.

2nd Method

The 15ml plant extract was collected in two conical flask, add 1ml of 3mM $AgNo_3$ solution in each conical flask. One flask was kept at room temperature in dark and another flask was kept on rotating shaker with covering of black polythen for 24 hrs. After 24 hrs the dark brown color was observed.

Fig 6: Qualitative analysis of colour change at room temp. & rotating shaker.

3rd method

The 50ml plant extract was collected in conical flask and it was sonicated, after sonication the extract was centrifuged for 15mins at 13,000 rpm. Add 1ml of 1mM $AgNo_3$ solution and kept at rotating shaker for 24 hrs. After 24 hrs dark brown color was observed.The appearance of dark brown color indicates the synthesis of silver nanoparticles.Synthesized nanoparticles were separated according to their size and shape by the Density Gradient Centrifugation.

Fig 7 : Separation of nanoparticles

Density gradient centrifugation

Prepared sucrose solution of 1M, 2M, 3M, 4M, 5M and each 2ml of sucrose solution was added in centrifuge tube. The sucrose solution was added from bottom to top (5M, 4M, 3M, 2M, 1M). Add 5ml of synthesized AgNP's.Centrifuge tube was kept in cooling centrifuge for 30 mins at 15,000 rpm. After centrifugation the different layer was observed in centrifuge tube.

The O.D. was taken at different wavelength of obtained different layer in centrifuge tube. By taking all readings the graph was plotted and from this graph it was concluded that the small size nanoparticles are at top and large size nanoparticles are at bottom.

Characterization of silver nanoparticles

Characterization of silver nanoparticles is done by using UV-Visible spectrometer and calorimeter.

By spectrophotometer

UV spectroscopy is a technique used to quantify the light that is absorbed and scattered by a sample.Silver Nanoparticles strongly interact with specific wavelengths of light. The 2ml of synthesize nanoparticles was taken in cuvettes and place under U.V. Spectrophotometer. The O.D. was taken at different wavelength.

Effect of temperature on nanoparticles

The synthesize nanoparticles were kept at different temperature like 37^0 C, 60^0 C, 90^0 C and calibration was done at different time point by using spectrophotometer

Effect of $AgNo_3$ concentration on particles

For the synthesis of silver nanoparticles, different concentration of AgNO3 was taken. The molar concentrations of AgNo3 was 1mM, 2mM and 3mM.. ant and calibration was done at different time point by using spectrophotometer

Antibacterial activity of synthesized AgNP's

Different materials are used for antimicrobial activity assay of silver nanoparticles were nutrient broth, petriplates, cotton swabs, silver nanoparticles and *S. aureus, B. megaterium.* Two test antibacterial activity assay of synthesized silver nanoparticles and disc diffusion method was performed.

We can also performed the antibacterial activity assay by measuring the comparison between cell number (growth curve) of the normal bacterial culture and added synthesized nanoparticles to the bacterial culture.

Preparation of inoculum

Nutrient broth was prepared in a conical flask and sterilized. The stain of *S.aureus* and *B.megaterium* was added to the conical flask containing nutrient broth. The inoculated bacterial culture was kept on rotary shaker overnight at rpm at room temperature.

Antibacterial activity assay by disc diffusion method

In order to test antibacterial activity of silver nanoparticles, Disc diffusion assay was performed in LB agar plates where 20 ml LB agar was poured in well rinsed, autoclaved petri plates; i.e. one to study antibacterial activity of synthesized nanoparticles and other as a control (no nanoparticles added) , and both kept for 30 minutes for solidifications. 1.0 ml of active fresh overnight culture of *S.aureus* was homogeneously spread in the agar plates and 4mm diameter (dipped in nanoparticles sample solution) was placed on the LB agar. The plates were incubated at the temperature 37^0C for 24 hrs. Zone of inhibitions were observed in each plate after incubation. Inhibition zone against *B.megaterium* and *S.aureus* was found remarkable. Same procedure was repeated for *B.megaterium* strain and zone of inhibition was observed.The antibacterial activity of synthesized nanoparticles was also observed by spreading different concentrations of synthesized AgNP's (200ul, 400ul) on *S.aureus* and *B.megaterium* strains on nutrient agar plates.

Antibacterial activity assay by measuring cell number

In order to test the antibacterial activity of silver nanoparticles 200ml nutrient broth media was prepared and autoclaved. Thereafter the 50-50ml media was distributed in two conical flasks and remaining as blank. The strain of *S.aureus* was inoculated in two flasks. In one flask the 1000ul of synthesized nanoparticles were added and not to another flask (kept as control) and both flasks were kept on shaker incubator at room temperature. After each 30 minutes interval the O.D. was taken at 600nm.The autoclaved N.B. media take as blank and added nanoparticles N.B. media and no added nanoparticles N.B. media take as test. By taking the all readings the graph was plotted and from this graph it was observed that by the addition of nanoparticles the growth of bacteria was inhibited. Same procedure was repeat the same as above for *B.megaterium* strain and observe the growth of bacteria.

RESULT AND DISSCUSSION

Synthesis of silver nanoparticles

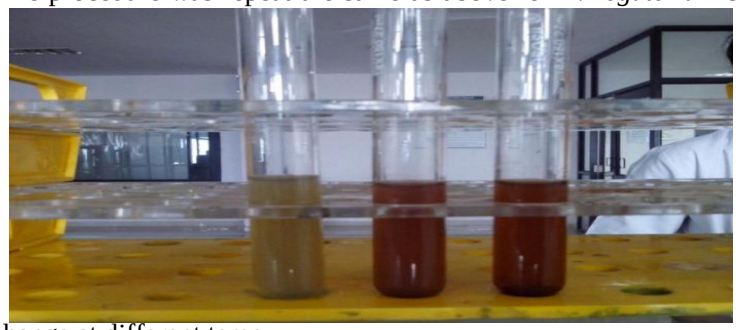
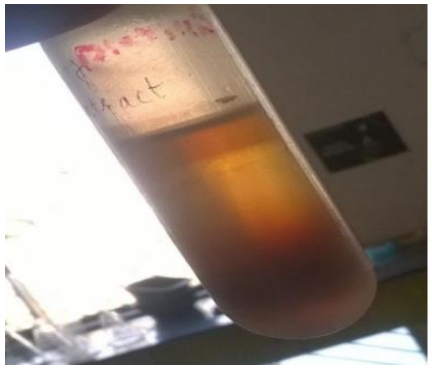


Fig 8: Qualitative analysis of color change at different temp

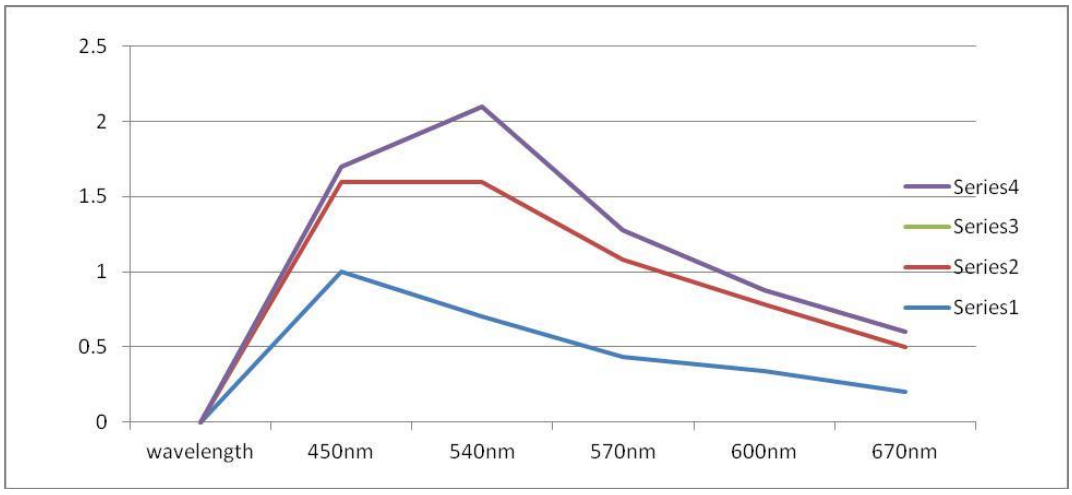
The aqueous silver ions when exposed to leaf extracts were reduced in solution, there by leading to the formation of silver nanoparticles. The extract was pale yellow in colour before addition of $AgNo_3$ and this was changed to brownish colour suggesting the rapid formation of silver nanoparticles. The time duration of change in colour was 2-4 minutes. The colourchange of silver nanoparticlesindicates the biosynthesis process . Brown colour in aqueous solution is due to the Surface Plasmon Resonance Phenomenon. The silver nanoparticlessynthesis had been confirmed by measuring the UV-Visible spectrum of the reaction mixture. The UV-Visible spectrum of colloidal solutions of silver nanoparticles synthesized from leaf extract of plumbago indica has absorbance peak at 450 nm.

UV-Spectrophotometer

Table 1: UV-Visible spectra of silver nanoparticles after mixing the solutions of 1Mm,,2mM&3mM silver nitrate and extract of plumbago indica plant.



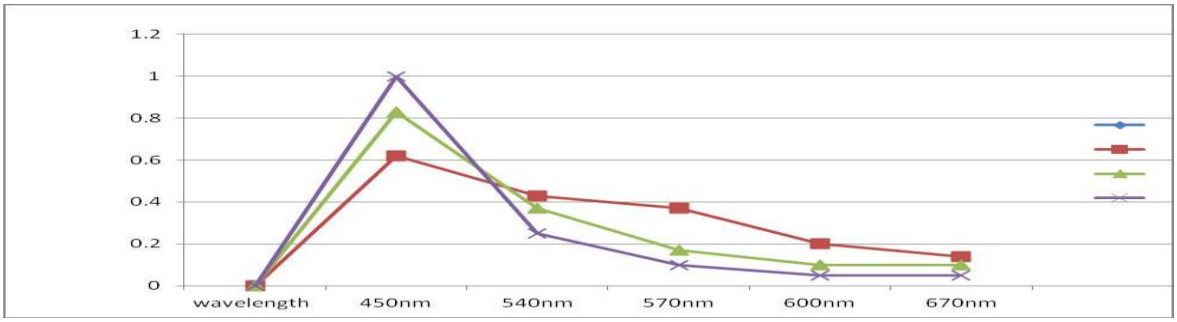
Wavelength(nm)	OD (1mM)	OD (2mM)	OD (3mM)
450	1.00	0.60	1.10
540	0.70	0.90	0.50
570	0.43	0.65	0.20
600	0.34	0.44	0.10
670	0.20	0.30	0.10



Graph 1: UV visible spectra of silver naoparticles at 1mM(blue),2mM(red) & 3mM(darkblue) $AgNo_{3\ CONC.}$.

Table 2: UV-Visible spectra of silver nanoparticles at different temperature (37^0, 60^0, 90^0c)

Wavelength(nm)	OD (37^oC)	OD (60^oC)	OD(90^oC)
450	0.62	0.83	1.00
540	0.43	0.37	0.25
570	0.37	0.17	0.10
600	0.20	0.10	0.05
670	0.14	0.10	0.05



Graph-2: UV visible spectra of silver nanoparticles at 37^0C (red), 60^0C (green), 90^0 C(blue) temp.

After compare of this different concentration and temperature of silver Nanoparticle graphs, we concluded that the silver nanoparticles were synthesized atspecific wavelength from to 416nm-450nm. Because the presence of single, sharp and symmetrical spectrophotometer pick are present in 416 nm to 450 nm wavelengths.

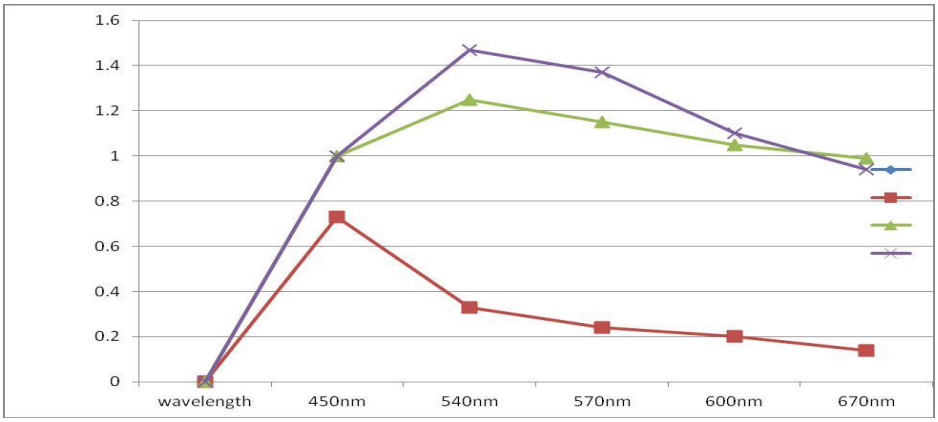
The colour change in reaction mixture (silver solution + leaf extract) was recorded through visual observation. The color change showed the presence of silver nanoparticles in the flower extract and it was characterized by UV-Visible spectrophotometer and monitored by taking readings at regular time intervals in a UV–Visible spectrophotometer.

Density gradient centrifugation

To separate synthesized nanoparticles density gradient centrifugation was done on the basis of their size, density and molecular weight, etc.

The different layer was observed which indicates the separation of nanoparticles.

Fig 9 :-Different layers of Density gradient centrifugation.

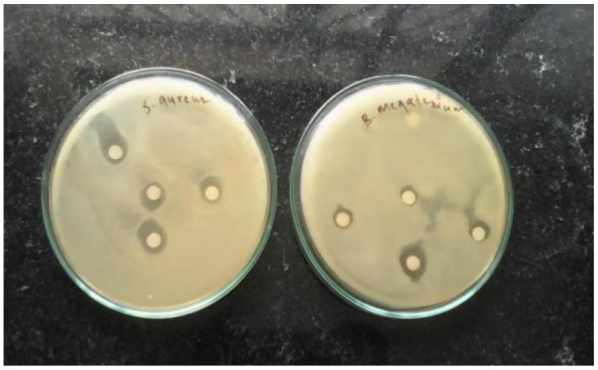


Graph 3: Graph of density gradient centrifugation (Red:-Top layer Green:- Middle layer Blue:-Bottom layer.)

Antibacterial activity by disc diffusion method

The bactericidal effect of Silver nanoparticles was checked against two pathogenic bacterial strains *B.megaterium* and S.*aureus*. Inhibition zone against *B.megaterium* and *S.aureus* was found remarkable in each agar plate and wasmeasured in mm.

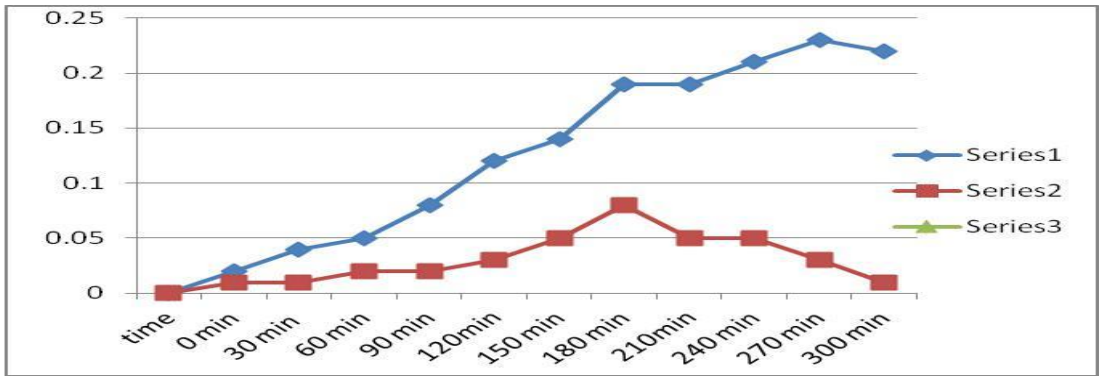
Fig 10: Control



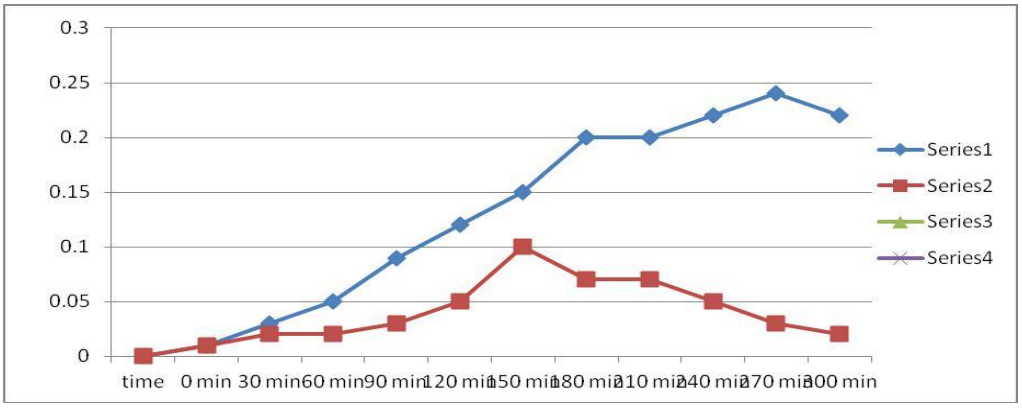
Anti microbial Activity by Disc Diffusion

By measuring cell number

In our studies it has been showed clearly that the bacterial culture treated with nanoparticle show decline in the no. of cells than if we compare with control bacterial culture. It shows that the synthesized nanoparticles have antibacterial properties.



Graph 4: Growth curve of*S. aureus*shows the antibacterial activity.(Blue=Control, Red= Treated with AgNP's)



Graph 5.:-Growth curve of*B.megaterium*shows the antibacterial activity. (Blue=Control, Red= Treated with AgNP's)

Conclusion

The present study is regarding the green synthesis of silver nanoparticles and their antimicrobial activity against bacteria i.e. *B.megaterium* and *S.aureus*. It is confirmed that silver nanoparticles are have great potential of rendering high antimicrobial activity and hence has a great potential in the field of medicine. In this experiments, silver nitrate was taken as control which showed no zone of inhibition against bacteria.

In this work, we have developed a simple and green method to synthesize silver nanoparticles using leaf extract as reductant and capping agent. The leaf extract has a consortium effect of reducing the silver salt solution and also hindering the particle growth. The reduction of silver ions and stabilization of the silver NPs was occur through the participation of leaf extract compounds like proteins and metabolites. Most importantly, the reaction was simple and easy to handle, and it is believed that it worths over other biological synthesis. By using this *Plumbago indica* leaf extracts to develop nanomedicine against various human pathogens.

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