ISBN: 978-81-959050-9-6

# NATURAL SCIENCES AND ENVIRONMENTAL AWARENESS TOWARDS SUSTAINABLE DEVELOPMENT

## Abhay Yuwa Kalyan Kendra's Arts Mahila Mahavidyalaya, Jalgaon

Organized By

Internal Quality Assurance Cell (IQAC) & Department of Geography
Multidisciplinary International E-Conference
On
Natural Sciences and Environmental Awareness towards Sustainable Development

## International Conference Abstract Proceedings

**Dr. Shantaram G. Baviskar**
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**Fern International Publication Pune**
Govt. Regi. No- UDYAM-MH-32-0072643
Malshiras, Dist-Solapur (MS), India
and
Sr.No.-48/60/1/3, Swapnapurti Niwas Yerwada Vasti, Vadgaon Budruk, Pune, Pin-411041

ISBN 978-81-959050-9-6

Price-750

# Natural Sciences and Environmental Awareness towards Sustainable Development

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*Fern International Publication Pune*

ISBN- 978-81-959050-9-6, 'Natural Sciences and Environmental Awareness towards Sustainable Development'
Pub. Date: 20/10/2023, Web: https://fppune.org

**Natural Sciences and Environmental Awareness towards Sustainable Development**

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**Publishing Agency**
Fern International Publication Pune
**Web:** https://fppune.org
**E-mail:** fppune2003@gmail.com

**Publisher Address**
Jyoti Kerappa Mane
Deshmukh Colony, Mhaswad Road, Malshiras, Malshiras, Malshiras , Malshiras, Solapur, 413107
Mob- 888454089
and
Amitsons Digital Copier, Pune Swargate
106, Paras Chamber, 1st Floor, Above Bank Of India, Near Laxminarayan Theatre, Swargate, Pune- 411009
Mob-7058486065

**Printed By**
Amitsons Digital Copier 106, Paras Chamber, 1st Floor, Above Bank Of India, Near Laxminarayan Theatre, Swargate, Pune- 411009

**Edition:**1st

**ISBN:** 978-81-959050-9-6



**Publication Date:** 20/10/2023

**Price:** 750

## Publisher

Abhay Yuwa Kalyan Kendra's Arts Mahila Mahavidyalaya Anmol Nagar, Deopur Dhule in Maharashtra has organized One day International Conference on the theme of 'Sustainable Development Gaols in SAARC Country: Key Issues, Opportunities and Challenges' held at 21st April 2023.

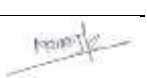
Dr. Praveen G. Saptarshi,Visiting Professor, Salisbury University, USA and deliverd the lecture as key note person 20th October 2023

Prof. Dr. S. D. Shinde, Head Department of Geography, Shivaji University, Kolhapur, Dr. S. C. Advitot, Principal, Head, Dept. of Geography, C. B. Khedgi's Basaveshwar College, Akkalkot, Dr. Babalola, Ayodele Samuel, Department of Pure and Applied Zoology,Federal University of Agriculture, PMB, 2240, Abeokuta, Ogun State, Nigeria, South Africa, Dr. Shivaji Shankar Maske, Professor, Dept. of Geography, Sangameshwar college (Autonomous) Solapur and Dr. S. N. Patil, Professor and Head, Department of Applied Geology, School of Environmental and Earth Sciences, Kavayitri Bahinabai Chaudhari North Maharashtra University Jalgaon, were played greatest role as the resource person and Dr Arjun Haribhau Musmade, Dr. S. B. Patil, Dr. Vikas W. Ubale, Dr. Daneshwar. R Pandey, Muhammad Saleem, Dr. Vinod L. Patil, Dr. Pavitra D. Patil, Prof. Satish Vedu Deore, Prof. Dr. Sandip Bhaurao Nerkar, Dr. S. D. Bagul, Dr. Gunvant H. Sonawane, Capt. Dr. Sunil Ananda Patil, Dr. Prakash Rajeshyam Konkawere played greatest role as the Chair person.

Dr. Shantaram G. Baviskar,Principal, Dr. Manisha S. Pawar HOD, Department of Geography, Dr. Shamkant D. Shrirav Assist. Professor, Department of Geography, Dr. Vinod L. Patil Professor, Director Of Physical Education, Dr. Gorakh G. Dhanagar IQAC, Coordinator have taken lots of efforts to success of the conference.

Abhay Yuwa Kalyan Kendra's Arts Mahila Mahavidyalaya Anmol Nagar, Deopur Dhule in Maharashtra has given the opportunities to various research schlars and academician to present and publish their research papers in this conference and encourage them for their academic achievemet.

Best wishes on behalf of Fern International Publication Pune for ongoing educational activities to continue in the Abhay Yuwa Kalyan Kendra's Arts Mahila Mahavidyalaya Anmol Nagar, Deopur Dhule in Maharashtra.



**Jyoti K. Mane**
**Publisher**
**Fern International Publication Pune**
**Web: https://fppune.org**
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# A Study On Sustainable Alternative Fuel For Vehicles

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**Abstract:**

**I**n the world of Globalization, the distance between people is reducing day by day thanks to the better transportation facilities developed. The air, water, rail and road transport have evolved so much that you can anytime think of travelling to any part of the world. However the fuel used for these transport is fossil fuel mostly and causes environmental degradation through air pollution by the gasses released by these vehicles. The harm caused by these gases has forced the governments, engineers around the world to think about the alternative to this fuel which will cause less or no harm to environment. Most of the countries have started moving towards the alternate fuel such as CNG, Electric, Hydrogen etc. which reduce the pollution as well as cost of the fuel. The vehicle manufacturers are also changing the goals and objectives considering this. This paper will give a basic idea about the potential of available market for such alternate fuel in the future.

**Keyword –** Globalization, alternate fuel, electric vehicles, environment.

# Environment Change and Its Impact on Agriculture Productivity

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**Abstract:**

**G**lobal environment change is a change in the long-term weather patterns that characterize the regions of the world. The term "weather" refers to the short-term changes in temperature, wind, and precipitation of a region (Merritts et al. 1998). In the long run, the environment change could affect agriculture in several ways such as quantity and quality of crops in terms of productivity, growth rates, photosynthesis and transpiration rates, moisture availability etc. Environment change is likely to directly impact food production across the globe. Increase in the mean seasonal temperature can reduce the duration of many crops and hence reduce the yield. In areas where temperatures are already close to the physiological maxima for crops, warming will impact yields more immediately (IPCC, 2007). Drivers of climate change through alterations in atmospheric composition can also influence food production directly by its impacts on plant physiology.Environment change has a serious impact on the availability of various resources on the earth especially water, which sustains life on this planet. Changes in the biosphere, biodiversity and natural resources are adversely affecting human health and quality of life. Throughout the 21stcentury, India is projected to experience warming above global
level. India will also begin to experience more seasonal variation in temperature with more warming in the winters than summers.

**Keywords-** Agriculture productivity, Environment change, Rainfall, Global Warming Potential, Green House Effect.

# Impact of Metro Rail Service on Public Transport of Nagpur City

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**Abstract:**

Transportation network is a vital aspect for the sustainable development of cities. It is considered as the nervous system of a city through which traffic flows. Nagpur city is one of the fastest growing cities in terms of development. It is also 13th largest urban municipal corporation in India and has been named as one of the cities in India in 'Smart City Project'.A case study was developed using the Metrorail network and public transport data from Nagpur Metro Rail Corporation, India.This work presents a GIS-based multicriteria variable analysis along with accessibility and connectivity approach for public transportation of Nagpur city with special reference to Metrorail service. Data collected from primary and secondary data sources were treated and organized to build the network dataset and perform analyses in GIS environment. A multicriteria variable analysis was also performed to compare different effects and impacts of Metro rail on the Nagpur city's public transportation. It helped to identify then most efficient factor amongst all.It is concluded that the commencement of Metro Rail Service had already played a dynamic role in the Public Transportation sector of Nagpur city.

**Keywords-** Nagpur Metro, Geographic Information System (GIS); Multicriteria Variant Analysis; Accessibility and Connectivity analysis.

# Public Transport in Pimpri Chinchwad City of Pune District: Problems and Possibilities

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**Abstract:**

Increase in transport infrastructure and regional development are two sides of the same coin. They are complementary to each other. Utilisation of public transportation helps to maintain sustainable cities and communities. More the use of public transport, ease is moving around cities. Recently it has been observed that public transportation is losing its importance and people are more tend to get personal vehicles. The present research paper wants to know the problems of public transportation and possibilities to improve city environment. One of the SDGs agreed by United Nations to protect and make urban areas liveable. People especially with the low income group is having very pity life in urban areas. They cannot afford personal vehicles so trying to live within city areas in very miserable conditions. If public transport services are affordable and easily reachable for people then city will expand evenly.With the help of Likert scale, assessment about quality of services is done about the public transport. Perception about public transport like city buses, local trains, private cabs, 3 seaters/6 seaters are the various options available in the city but still the number of personal vehicles like 2 wheelers and 4 wheelers are increasing which cause measureable city life with pollution (noise and air), traffic congestion, traffic jams, parking problems, road accidents etc. One of the easy solution to traffic related problems in most of the urban areas is to increase use of public transport. Many commuters don't consider public transport

because of some its issues. The research paper discusses on problems of public transport with people's perception and suggest measures.

**Keywords**- SDGs, Public Transport, perception, Likert scale, assessment, possibilities

## A Study on Public Participation in Disaster and Impact of Disaster Management on Indian Economy

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**Abstract:**

**T**he role of emergency management falls under the jurisdiction of the National Disaster Management Authority of India, which is doing major work in mitigating the adverse effects of disasters and working through decentralized communities with a government-centric approach. Participation But when it comes to mitigating the large-scale damage caused by a disaster, it is necessary to consider strategic strategies and mitigation efforts. We have not been able to put in adequate rescue and rehabilitation efforts to deal effectively with the situation. A disaster is a severe disruption in the functioning of a population and society as a result of population or environmental damage that increases the ability of the affected population to be able to cope with their own resources.

**Keywords**- Disaster management, Indian Economy, population, poverty, planning, decision making etc.

## Water Quality Status Of River Ganga:An Analysis

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**Abstract:**

**O**ur Mother Earth covered by 71% of water, we know very well but how much water among them are really used for human consumption this is a very critical problem for our living. Now the question arises Why ? The only answer of this is the gradually increasing the ratio of disturbance or imbalance into the water quality and their parameters. There are various factors which are responsible for the Degradation of water quality. Many Microorganism (Harmful) also enter the water with the medium of soil and organic particles, this makes the water unhealthy. Lots of Human activities also responsible for the water quality such as – Industrialization, fecal discharge in nearby rivers, ponds, etc., Ashes drowns into the water, and waste decomposition, wastes thrown near the rivers . Which effects the pH, TDS, turbidity of water. Many policies granted by World Health Organization (WHO) to cure the water quality from being polluted. Biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) also related to the Water Quality. Some chemicals are also introduced into the water which make the water (inorganic salt) heavy there are commonly known as Total Dissolved Solid(TDS). Various Health Issues arises which are effect of Chemical parameter of water in Humans.

**Keywords**- Zooplankton, Phytoplankton, pH, iodine, water quality, industrial pollution, waterborne diseases.

# Impact of Frequent Land sliding: A Case Study of Ambeghar Village in Patan Tashil

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**Abstract:**

**A** landslide is a mass movement of material down a slope, such as rock, earth, or debris. They can happen suddenly or more slowly over long periods of time. When the force of gravity acting on a slope exceeds the resisting forces of a slope, the slope will fail and a landslide will occur. Landslides are natural hazard which is caused by several geophysical & anthropogenic factors Landslides are caused by disturbances in the natural stability of a slope. They can accompany heavy rains or follow droughts, earthquakes, or volcanic eruptions. Mudslides develop when water rapidly accumulates in the ground, resulting in a surge of water-saturated rock, earth, and debris. The four main types of movement are fall topples. Slides (rotational and translational) flows. The impact of a landslide can be extensive, including loss of life, destruction of infrastructure, damage to land, and loss of natural resources. Landslide material can also block rivers and increase the risk of floods. Pune One of the biggest landslides in the state has occurred here. Raigad recently a landslide, named the biggest after 2016 in Pune, occurred here. Satara a huge landslide took place near Pratapgarh Fort and Ambeghar Village in Patan tehsil recently. These landslides are dangerous, occur suddenly and cause significant damages (Guzzetti et al., 1999). It plays a significant role in the evaluation of landforms while constituting a severe natural hazard in many regions

# A Study of Solar Energy and Sustainable Development

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**Abstract:**

**S**olar energy has emerged as a critical driver of sustainable development in the face of growing global energy demands and environmental concerns. This research paper provides a comprehensive review of the role of solar energy in promoting sustainable development, encompassing economic, social, and environmental dimensions. It explores the current state of solar energy adoption, its benefits, challenges, and the policy frameworks driving its integration into the global energy landscape. The paper also discusses the potential of solar energy to address energy poverty, mitigate climate change, and foster economic growth, while highlighting key technological advancements and future prospects.Solar energy, derived from the abundant and renewable resource of sunlight, has gained increasing prominence in recent decades as a critical catalyst for sustainable development. This abstract provides a succinct overview of the multifaceted relationship between solar energy and sustainable development, highlighting key themes and findings from recent research. It delves into the economic, environmental, and social dimensions of solar energy's impact, emphasizing its potential to address global challenges, from energy poverty to climate change. Furthermore, it underscores the imperative of effective policies

and technological advancements in harnessing the full potential of solar energy for a more sustainable and equitable future.

**Keywords**- Solar energy, Technological advancements, economic benefits, Sustainable development, Global challenges.

## Geographical Analysis of Wildlife Migration Corridors in Response to Climate Change

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**Abstract:**

**T**his research paper presents a comprehensive geographical analysis of wildlife migration corridors in response to the profound impacts of climate change. The primary objective of this study is to identify and assess the alterations in wildlife migration patterns within key ecological regions. To achieve this, we employed advanced geographic information systems (GIS) techniques and integrated data from satellite tracking, climate modelling, and historical wildlife movement records. Our findings reveal significant shifts in the geographical distribution of migration corridors for various species, indicating a compelling response to changing climatic conditions. These results emphasize the urgent need for adaptive conservation strategies and policy interventions to safeguard these critical pathways for wildlife in an era of rapid climate change. This research contributes vital insights into the evolving dynamics of wildlife migration, underscoring its relevance for biodiversity conservation and ecosystem resilience in the face of climate-induced disruptions.

**Keywords**- wildlife migration, climate change, corridors, geographical analysis, satellite tracking, biodiversity conservation, climate-induced disruptions, ecosystem resilience

## Clean Technological Solution for Sustainable Development in India

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**Abstract**:

**C**lean technology has moved from vision to reality and it's now priority to global climate change the clean technology industry can become green and environment friendly and profitable solar, wind, biomass, geothermal, and some types of hydropower are all considered to by types of renewable energy. Also referred to as clean technology these forms of energy have minimal effects on the environment. Traditional dirty forms of energy such as petroleum, natural gas, coal and nuclear electric power all give off harmful by products when used. Despite our knowledge of the harmful effects of these traditional forms of energy, the role of clean technology is very significant in today's world condition. In the examples above, clean technology solutions have a positive benefit in relation to climate change and sustainable devilment the in the eyes of the impotent that clean technology solutions are economically viable land have the potential to be

profitable.

**Keywords**- Sustainable, Clean Energy, Technique.

## Forest, Agriculture and Environment Protection - Path to Sustainable Development: A Case Study of Village Baripada, Dhule (Maharashtra)

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**Absract:**

**S**ustainability improves the quality of our lives, protects our ecosystem and preserves natural resources for future generations. The World Commission and Development popularized this concept in 1987.Their report defines the idea as a "development which meets the needs of the present without compromising to meet their needs''. Sustainable development aimed to prevent the stripping the natural world of resources which the future generations will require. The concept of sustainable development and ultimately the issues of conservation of environment have become phenomenal importance at global, national and local level. Man is exploiting nature to produce more and more goods to meet his growing needs. It has created a threat for environment, ecology and biodiversity. Therefore, it is need of hour to give due importance to sustainable development. Baripada Village in Dhuel district of Maharashtra (India) is a good example of how sustainable development of an area can be achieved through environment protection, agriculture and forest conservation. Therefore, an attempt has been made in the present paper to conduct a case study of Baripada village. It is situated in Sakri Tehsil, Dhule District of Maharashtra State, India. The present study is based on primary as well as secondary data. With the increasing awareness of environmental protection in Baripada villagers started with reforesting the forest around their village. Participating in conservation activities, planting and developed their Agricultural practices. Due to lot of efforts of villagers of tribal village Baripada with the cooperation of NGO and government agencies, the village has achieved to a great extent sustainable development.

**Keywords:** Sustainable Development, Resources, Conservation, Tribal Village.

## Water Related Issues: A Case Study of Manjra Dam's Backwater Area, Beed District of Maharashtra

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**Abstract:**

**W**ater is prime source of life in our planet. We (plants, animals & organism) cannot live

without water. But in the modern days water shortage in one of the major global issues. Water is used for various purposes. Such as Domestic use, Industrial, Agriculture, Construction purposes. Manjra dam in Kaij tahsil of Beed was built for Agriculture and district Daily purpose and dam can irrigated 1337 hectare area. In present day the water mostly uses for industrial and contraction purpose for Latur district and surrounding area.No drought that dam construction in useful activity but mismanagement & misuse of water are responsible for many water related problem's and issues in dams back water and beneficial area. But it creates many issues due to mismanagement and misuse of water.

**Keywords**- Water related issues, Manjra dam, Water shortage, Water availability

# A Study of Noise Pollution Measurements and Possible Effects on Public Health in Jalgaon City

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**Abstract:**

**N**oise is any sound that is unwelcome or interferes with one's quality of life. Noise pollution is the phrase used to describe when there is a lot of noise in the surroundings. When it interferes with routine activities like working, sleeping, or conversing, sound becomes unwanted. Because we cannot see, smell, or taste it, it is an underappreciated environmental issue. One of the most prevalent contaminants is ambient noise, also known as community noise. Community noise encompasses the main sources of road, rail, and air traffic, industries, construction and public works, and the neighbourhood, according to the World Health Organization, which defines it as noise released from all sources, with the exception of noise at industrial workplaces (WHO, 1999). Globally, local communities are getting more and more concerned with environmental noise. Over the past 40 years or so, significant attempts have been made to lessen the effects of noise from transportation sources like aircraft, trains, and roads. But because of rising traffic levels (by all modes) during longer hours of the day and evening, many of the advantages of these efforts have been lost. A bigger fraction of the population has now been exposed to higher noise levels as a result of increases in urban population. According to the World Health Organization, noise poses a serious threat to human health. The USEPA claims that noise and health are directly related. Additionally, millions of people's lives are negatively impacted by noise pollution. There are numbers of physical and psychological effects of noise pollution.The health effects of noise pollution include high blood pressure, illnesses brought on by stress, sleep disruption, hearing loss, and decreased productivity. Additionally, it may result in panic attacks, severe despair, and memory loss. In this paper, a study of traffic noise in Jalgaon city busy areas with high traffic flow during peak hours has been conducted. The study's findings indicate that the city as a whole is severely affected by noise pollution, more so in the evening than in the morning, and that in almost 90% of the area, the prevailing noise level is higher than the ambient noise level. The average noise level in several regions has been determined to be around 85 dB at 90% of the busiest points.Jalgaon city, being a crowded city, causes persistent concerns relating to noise pollution.

The majority of the noise is only produced by the horns of vehicles such rickshaws, buses, wagons, and Lorries, etc. The city is expanding quickly, and as more vehicles are being utilized on a regular basis, the noise level in the city is rising, which will lead to a number of health problems. It is necessary to assess and limit the traffic noise in this metropolis since it is getting worse every day, posing a health risk.

**Keywords-** Noise pollution, Noise data, Noise monitoring, Noise modelling, metropolis, etc.

## Strategies to Address Maharashtra's Water Quality Issues

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**Abstract**

**T**he most fundamental requirement for existence is water. It is superior to every other single thing that people utilize on a daily basis. According to conventional wisdom, humans cannot survive without water for more than two weeks.Water gives plants their strength and provides all living things with energy. 'Jeevan' is one of the first descriptions of water. Life is at stake.Municipalities must collect, treat, and dispose of water waste, solid trash, biomedical waste, plastic waste, and other waste due to the fast urbanization that has occurred. The majority of the wastewater produced by local entities is dumped into surface waters or on land. While discharge into surface water has an impact on aquatic life, disposal onto land pollutes ground water.The article concentrated on the primary sources of pollution, including the immersion of plaster-of-paris Ganesh idols and chemically painted Ganesh idols during the Ganesh festival in Maharashtra rivers, as well as other solutions and river pollution. Urban areas are home to over 42% of the state's pollution (9.69 crores). The State of Maharashtra currently has 22 Municipal Corporations, 221 Municipal Councils, and 7 Cantonment Boards. Approximately 45, 62,680 m3/day of water effluent is produced by municipal corporations. to evaluate the Indian legislative provision about water pollution. to research water pollution-related judicial rulings. to investigate the issue of Ganesh idol immersion during the Ganesh Festival in the rivers of Maharashtra and offer alternative suggestions.

## Location and Distribution of the Primary Health Care Centres in Dhule District (M.S.)

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**Abstract:**

**U**nited Nations has set 17 goals of the 'Sustainable Global Goals'. These goals are also known as 'Global Goals' or 'Sustainable Development Goals'. These broad goals are interrelated, but the achievement of each goal is its own. There are targets. All objectives have a total of 169 targets. It covers many aspects of social and economic development. These include poverty, hunger, health, education, climate change, gender equality, water, sanitation, energy, environment,

and social justice. The third and most important of the 17 goals of the SDGs is health and well-being for people. It ensures healthy living and calls for promoting well-being for people of all ages. SDG-3 aims to achieve Universal Health Coverage, which calls for equal access to health services for all men and women. It proposes to end preventable deaths of newborns, infants, and children fever then 5 years of age (child Mortality) and end the epidemics. In the study area number of PHCs is very less to the available population.

**Keyword**- Primary Health Centre, Sustainable Development, Goal, Good Health, Well-being.

## Solid Waste Management and Environmental Awareness towards Sustainable Development : A Case Study

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**Abstract :**

**E**nvironmental pollution is the greatest threat to humanity on the globe today. It entails polluting the environment. The environment is made up of the soil, water, air, plants, and animals. We poison them, and both man and nature suffer as a result. True, trees are being felled at an alarming rate. Our planet is warming up. If pollution continues, our planet will soon turn into a boiling pot and a desert or it will be submerged under sea water, destroying humanity. Inhaling requires pure air at all times. Our health improves when we breathe clean air. Impure air, on the other hand, creates diseases, deteriorates our health, and ultimately kills us.Solid waste releasing a bad odor, as well as decomposing plants and animals, contribute to air pollution. Solid waste management is one of the most difficult difficulties confronting emerging countries, which are plagued by major pollution issues caused by massive amounts of garbage output. The current study is based on primary data gathered through a field survey. Personal observations at garbage generation and dumping sites, as well as a structured questionnaire delivered to a selected sample of the resident population, were used to collect primary data.Personal interviews have been conducted with Nahan Municipal Committee sweepers, sanitary inspectors, and local residents. Data on ward-wise population, per capita income, and rubbish generation were gathered from Nahan town's municipal committee and statistical branch, as well as the Census of India. The household level statistics from 13 wards were collected via canvassing a structured questionnaire from 65 families in the town chosen at random.

**Keywords:** Environmental Pollution; Planet; Solid Waste Management; Garbage; Household.

# Dry And Wet Spells Analysis For Efficient Agricultural Practice of, Dhule District, Maharashtra

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**Abstract:**

Agriculture, a basic economic activity plays a pivotal role in the economy of the study region. But still, it gambles with south-west monsoon which reflects high fluctuation in agricultural production due to the inadequate and uncertain nature of monsoon and frequent occurrence of drought conditions hamper the development of agriculture. Sequence of dry and wet period with onset and withdrawal of rainy season is necessary for agricultural crop planning and soil and water conservation measures. In the present study the daily rainfall data (1998 to 2018), the frequencies of dry spells are calculated. The criteria for dry spells i. e spell of equal to or more than 11 days taken in to consideration from the month of June to October for the present study. The purpose of estimating probability with respect to a given amount of rainfall is extremely useful for agricultural planning. In a growing season decision have to made based on probability of receiving certain amount of rainfall during a given decade. The probability of rain during next week, if rain occurs this week known as conditional probability of a wet week preceded by a wet week (PWW), and the probability of rain next week being wet, if this week is dry known as conditional probability of a wet week preceded by a dry week (PWD). Analogously initial and conditional probability for a dry week can be defined (Srinivasa et al., 2008). These initial and conditional probability would help in determining the relative chance of occurrence of a given amount of rain fall and the chance of any threshold amount of rain fall depends on the purpose for which the different probability may be computed (Virmani, 1976).

**Keywords:** Dry spell, wet spell, Probability of rain

# Growth of Population in Nandurbar District (M.S.)

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**Abstract:**

Geographical study of population growth is of vital importance for understanding its dynamic as well as for planning at the local and regional level. Population growth refers to the growth of the human population in a particular area during a specific period. The growth may be positive or negative population growth may be due to natural increase. Rates of natural increase or decrease that rates computed on the balance of births and deaths give some measure of the overall gain or loss in a population through the addition of births and the subtraction of deaths. Main factor responsible for this tremendous rise in the last 50-year fall in death rate due to improvement in medical facilities. During the period 30 years between 1961 to 1991.Population has increased by 40 cores. This increase was 10 times more than the increase in the previous 30 years, from 1901 to

1931.

**Keywords:** - decadal population, urban population, rural population.

## "Study of Relationship between Population Density and Socio-Economic Development of Dhule District, Maharashtra"

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**Abstract:**

**A**nalysis of distribution of population plays a population and density of important role in the studies related to population geography. Both these are the outcome of the cumulative Effects of several natural as well as socio-economic factors functioning in a region. Population density is used as an indicator tomeasure the concentration of population. The study of a density ofpopulation helps us understanding the nature of spatial distribution of population. It is useful in several other ways. For example, if in region natural factors are favorable and density of population isdesirable, then it is easier to implement the development scheme. It is also become easier to know possibilities for development of a region. While introducing new transportation network, it is essential to know the density of population of a region.

**Keywords** – Land use, population density, social, economic development

## A Geographical Analysis of Environmental Literacy in Ghod Irrigation Project of Pune and Ahmednagar District, Maharashtra

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**Abstract:**

**E**nvironmental literacy, also known as environmental education, is the ability to understand, evaluate, and solve environmental problems that includes the knowledge, skills, attitudes, and values that individuals need to make informed decisions and take responsible actions with respect to the environment. Environmental literacy is essential to addressing global environmental challenges and promoting sustainable practices. A key component of environmental literacy is understands ecosystems, biodiversity, climate, and the interdependence of living things in the environment. It also includes knowledge about environmental issues such as pollution, deforestation, climate change and conservation of resources. Environmental literacy equips individuals with critical thinking skills to analyze complex environmental issues, Evaluate possible solutions and make informed decisions. This includes the ability to recognize correlations in the environment. Environmental literacy emphasizes the concept of sustainability. Sustainability is the use of resources to meet the needs of the present without compromising the ability to meet the needs of future generations. It also includes awareness of the social, economic and environmental dimensions of sustainability.

**Kewords:** Environmental literacy, forest, conservation, ecosystems

## Drinking Water Vulnerability in Sundarban: A Case Study

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**Abstract:**

The Sundarban Biosphere Reserve (SBR) region has long been subject to cyclonic storms and severe flooding, resulting in heavy rainfall, flooding, and banks collapsing. Different Cyclonic storms and river bank collapsing, the acute drinking water problem can turn into a chronic issue in events like Aila,Foni, Cider, Reshmi, Yash, Amphan, etc. Even after the flood water recedes, the tube well water remains undrinkable. The main focus of my research article is on the drinking water crisis and vulnerability in the western part of the Sundarban, consisting of four blocks: Sagar Island, Namkhana, Patharpratima, and Kakdwip. The Sagarcoloni and Ghoramara of Sagar Island, Pailaghery and Amaravati of Namkhana, Gobardhanpur and Dakshin Sibganj of Patharpratima, Chandipur and Akshanagar of Kakdwip have been selected for intensive household surveying. After house-hold surveying of 446 households in the sample villages, the sea-facing or creek-facing villages have caused a crisis of pure drinking water due to not only physical but also social as well as economic vulnerabilities, i.e., literacy, awareness, occupation, female literacy, poor communication due to creek-netting location, etc. Thus, socio-economic vulnerability assessment has an important role to play in determining the drinking water vulnerability in this part of West Bengal's Sundarban.

**Keywords**: Sundarban Biosphere Reserve (SBR), creek-facing villages, socio-economic vulnerability, drinking water vulnerability, cyclonic storms.

## A Geographical Analysis of Housing Size and Condition on Scheduled Caste Area in Beed District

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**Abstract:**

This research explores the trend and spatial pattern of household size and condition in Beed district using village level data.A suitable house is one of the basic needs of human life without which one cannot perceive of a life worth living. It influences one's physical health and mental efficiency, therefore, future skill and productivity which ultimately determines individuals socioeconomic status. The process of development has brought economic prosperity; scheduled caste people have started investing a lot of money in improving their housing size and condition.

**Keywords:** Scheduled caste household, Distributional pattern, Household size, sample villeges, Beed district

# Impact of Plastic Pollution on Gomti River and Its Environment in Luck now City

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**Abstract:**

**S**ince the development of plastic, plastic has proved to be a wonder material as it is easy and cheap to make and it can last a long time but unfortunately, these very useful qualities make plastic a huge pollution problem. Every year, about more than 8 million tons of it ends up in the ocean and if it continues to pollute at this rate, there will be more plastic than fish in the ocean by 2050. Basically, most of the plastic is washed into the ocean by rivers which is not only polluting the oceans but also converting itself into a dead river same is the case with the river Gomti. Gomti River is a groundwater-fed river that emerges from the Madhotanda area of Pilibhit. It enters Lucknow from Ghaila Sarora Pul and leaves the city at Pipraghat where it is treated in the worst way. Today river Gomti is on the verge of being dead as an estimated 10 metric tonnes solid waste, in the form garbage and plastic, is dumped into the river which is not only choking the river Gomti but also effecting the water quality of the river, dropping the DO levels which is not only affecting the aquatic flora and fauna of river Gomti but also effecting the soil and agricultural products which are grown near the banks of the river Gomti. Hence there is an urgent need to check the use of plastic in Lucknow city, avoid plastic by bringing reusable bags to grocery stores, switch from disposable to reusable drinking bottles, use a ceramic coffee mug and reduce the consumption of single-use plastic bags, straws, cups and other items so that not only river Gomti could be preserved as life line of Lucknow city but also the asthetic beauty and its tehzeeb culture of the city could be maintained not only in India but in the world too.

# An Overview to Achieve Sustainable Development Goals through Literacy in Reasi District of Jammu Division

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**Abstract:**

**T**his paper provides an overview of literacy in Reasi district, located in the Jammu Division of Jammu and Kashmir (Union Territory), and examines its contribution to the achievement of specific Sustainable Development Goals (SDGs). Reasi district, situated in a Himalayan region, faces distinct challenges in terms of education and development. In order to provide an accurate portrayal of the prevailing literacy and literacy rate in the study area, this paper relies on the examination of secondary data sourced from government reports and census records. These data sources constitute the primary foundation of this research paper. The paper not only highlights the relationship between the literacy rate and various sustainable development goals but also emphasizes the persistent challenges to achieving the literacy rate. Additionally, this assessment offer suggestions aimed at addressing the identified challenges and fostering progress towards the SDGs.

ISBN: 978-81-959050-9-6, 'Natural Sciences and Environmental Awareness towards Sustainable Development'
Pub. Date: 20 Oct. 2023 Web: https://fppune.org

**Keywords**: Literacy, Literacy Rate, Reasi, Sustainable Development Goals, Challenges and Suggestions

## Environmental Impact of Urbanization

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**Abstract:**

The pace of urbanization has increased tremendously in the twenty first century. In the next few decades, the pace of urbanization is predicted to be unprecedented in developing countries, especially in Asia, Africa. By 2030, these two continents will account for 70% of the world's total urban population. India also has the fastest rate of urbanization in Asia. India's urban population has grown by 10% in the last 50 years. By 2030, at least 40% of India's population will live in cities. Increasing urbanization create serious problem in the environment. Urbanization is growing in a very faster rate and that is very harmful for the environment. It is expected that the proper care should be taken by the developers.

**Keywords**: - Population, Urbanization, Environment

## An Assessment on Integrated Drought management in India

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**Abstract: -**

The large area of India is always at threat of the drought. India aims to achieve the framework for disaster risk reduction targets along with a few sustainable development goals. For this, the policies towards disaster management should be appropriate and effective at national as well as the state level. Among this all natural disasters, drought is a common and frequent type in India causing significant agricultural and other economic losses. Therefore, the present study focused the drought management policy of India. These study findings suggest that drought definition, management and the drought relief practices significantly vary at the State level in India. Moreover, these policies are also ineffective in reducing the drought losses.

**Keywords**: Drought, Drought Management, Sustainable Development.

# The Critical Study of Cropping pattern and Crop Concentration in Solapur District

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**Abstract:**

Cropping pattern is defined as the spatial representation of crop rotation or the list of crops produced in an area and their order in time. Crop concentration is the variations in the density of any crop in area at a given point of time (Chouhan T. S., 1987). Specialization in cropping, including mono-culture, may yield rich dividends for a while but mono-culture is inimical to natural order, deleterious to exospheric safety and lethal to man's long-term interests (Gopal Krishna., 1992). High area under food crop was found in Karmala, Pandharpur, Barshi, Madha, Mohol, Mangalvedha and North Solapur tahsil due to development of surface irrigation. The moderate area under food crop was found only in Akkalkot and South Solapur tahsil, whereas it is low only in Malshiras and Sangola tahsil because lower development of surface irrigation facility. During the period of investigation high degree of concentration of Jowar is recorded only in high degree of concentration of Jowar is recorded in Barshi, Akkalkot, Pandharpur, Sangola, Malshiras, Mangalvedha, South Solapur and North Solapur tahsil because development of irrigation facility, high concentration of wheat is found in Madha, Mohol, North Solapur and Mangalvedha tahsil,. The high concentration of Maize is found in Karmala, Madha, Malshiras, Pandharpur, Mangalvedha and Mohol tahsil due to use of fodder crop in milch animal and available of surface irrigation facility. The high concentration of Sugarcane is found in Karmala, Madha Pandharpur and Akkalkot tahsil due to development of irrigation facility of Bhima and Sina river basin and Ujani major irrigation project. The moderate concentration of Sugarcane is found in Mohol, South Solapur, Malshiras and North Solapur tahsil. The high concentration Tur is found in Barshi Akkalkot, Sngola Malshiras, and Mangalvedha tahsil due to development of Dal mills

**Keywords**: Crop, Agriculture, irrigation, concentration etc.

# Study of Relationship between Population Density and Socio- Economic Development of Hingoli District, Maharashtra

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**Abstract:**

The study of spatial distribution of population remains incomplete without the identification of its density. In fact the concept of density of Population provides a quantitative measure of a degree of Population concentration in an area. A study of distribution, which therefore, is to be supplemented by discussion on the pattern of the Population density. The term density of Population refers to a ratio between Population and land area Analysis of distribution of Population plays a Population and density of important role in the studies related to Population Geography. Both these are the outcome of the cumulative effects of several natural as well as socio-economic factors functioning in a region. Population density is used as an indicator to

measure the concentration of Population. The study of a density of Population helps us understanding the nature of spatial distribution of Population. It is useful in several other ways. For example, if in region natural factors are favorable and density of Population is desirable, then it is easier to implement the development scheme. It is also become easier to know possibilities for development of a region. While introducing new transportation network, it is essential to know the density of Population of a region.Population is very closely linked to the economic development of a society. The quantity, quality, structure, distribution, and movement of a Population can help or higher the rate of economic development. A developed country with low population density and a low percentage of employable people needs an increase in Population in order to keep up with economic development. On the other hand, for an underdeveloped country with high Population density and a high percentage of employable people, any increase in Population will be detrimental to its economy. Man is a producer as well as a consumer, and in order to balance the rate of production and the rate of consumption, a certain Population level must be maintained.

**Keywords**: Land use, population density, social, economic development.

## Spatio-Temporal Variations in the Beach Dune Complex at Diveagar, Konkan coast, Maharashtra

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**Abstract –**

Coastal zones are known for their dynamic nature and often present a challenging task as far as documenting their characteristics through field studies is concerned. Beach-dune complex are such coastal landforms which are subjected to modifications through time ranging from micro to meso-temporal scale. The present paper attempts to examine the beach-dune complex along Diveagar. An attempt is made to understand and record the accretion and erosion along the dune edge thus, tracing the dunal retreat and/or progression over a period of more than three decades. The data spanning over thirty-seven years (1984-2021) was taken into consideration to demarcate the dune edges. The zone of dune edge shifting was demarcated and profiles were superimposed for six periods to understand the erosion / deposition environment of the dune. Results obtained depicted that the northern section of the dune edge was found to be more deposition oriented whereas the southern section depicted the erosion. Overall, it may be stated that over the years Diveagar beach- dune complex has exhibited high rates of erosion in the southern section posing threat to the settlements in the vicinity.

**Keywords** – Accretion, Erosion, Beach-dune complex, EPR, NMR.

# Study of Changing Literacy Composition in Rural Area of Jalgaon District 2001 To 2022

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**Abstract:-**

The literacy rate has defined as the percentage of the population of a given age group that can read and write. Literacy is the ability to read, write, speak, and listen in a way that lets us communicate effectively and make sense of the world. The adult literacy rate is the percentage of people ages 15 and above whom can both read and write with an understanding a short simple statement about their everyday. The adult literacy rate corresponds to ages 15 and above, the youth literacy rate to ages 15 to 24, and the elderly to ages 65 and above. The tahsil-wise literacy composition in rural area of Jalgaon district is seeing varying and its rate is going to increase in these decades 2001 to 2022.

**Keywords:** - Literacy, Composition, Rural area, Geographical Factors etc

# Morphological Redesription of A Freshwater Ciliate Paramoecium Caudatum (Ciliophora: Oligohymenophorea) From Saradwadi Dam

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**Abstract:**

Total 35 water samples were collected from Saradwadi dam, located near Sinnar, Nashik district, Maharashtra, India. Samples were collected for the period from December 2021 to April 2022. During the present investigation a free-living freshwater ciliate Paramoecium caudatum was found and identified morphologically. Shape and size of the organism, shape, size and position of the macronucleus and micronucleus, contractile vacuoles, ciliary structures were considered for the identification of the species. Present species compared with the previously described species of the genus Paramoecium redescribed here. Month wise prevalence was also recorded.

**Keywords**: Cilia, Macronucleus, Micronucleus, Morphology, Prevalence, Taxonomy

# The Impact of Technology on the Environment: Promoting Sustainability and Mitigating Negative Effects

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**Abstract:**

The rapid advancement of technology has significantly impacted the environment, both positively and negatively. This abstract aims to provide an overview of the impact of technology on the environment, with a focus on promoting sustainability and mitigating negative effects. Technology has played a vital role in driving economic growth and improving the quality of life for millions of people. However, it also recognizes that this progress has come at the cost of environmental degradation. The negative effects of technology on the environment include increased energy consumption, pollution, and depletion of natural resources. In this paper we will discusses how technology can be harnessed to promote sustainability and mitigate these negative effects. It highlights various examples of environmentally friendly technologies, such as renewable energy sources, energy-efficient appliances, and waste management systems. These technologies contribute to reducing greenhouse gas emissions, conserving resources, and minimizing pollution. Furthermore, the abstract explores the role of innovation and research in developing sustainable technologies. It emphasizes the importance of collaboration between governments, businesses, and academia to drive technological advancements that prioritize environmental sustainability. It also stresses the need for policy interventions and regulatory frameworks to create incentives for the adoption of sustainable technologies. In conclusion, the impact of technology on the environment is a double-edged sword. While it has caused significant harm, it also holds immense potential for promoting sustainability and mitigating negative effects. By harnessing and further developing sustainable technologies, it is possible to achieve a balance between technological progress and environmental preservation.

**Keywords:** Technology, Environment, Sustainable development

# Bacteriological Analysis of Drinking Water in Sarangpuri Lake, Arvi. Dist:Wardha

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**Abstract-:**

**W**ater Pollution is the contamination of water caused by Human activities, which is harmful to organism and plant living in these water bodies. Bacterial assessment of waters readily gives a quantitative result. Present study investigates the Pollution status of drinking water at different sites of Sarangpuri lake, Arvi, District Wardha, Maharashtra. The Study has been carried out during the period from June 2022 to May 2023. The bacteriological analysis performed was in accordance with standard procedure. The investigation revealed that from different sites all had counts E.coli and Thermotolerant estimated to be very low in rainy season as compare to winter and summer season.

**Keywords**-: Drinking water, Coliform, Pollution, Sarangpuri lake.

# In Situ Conservation of Fauna in Eturunagaram Wild Life Sanctuary at Mulugu District

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**Abstract:**

**E**turnagaram Wildlife Sanctuary is a wildlife sanctuary located in Eturnagaram village in Mulugu district in Telangana, It is located 100 km (62 mi) from Warangal and 250 km (160 mi) from Hyderabad. It is a integrated tribal development town. A perennial water source called "Dayyam Vagu", divides the sanctuary into almost two halves. It is home to Tiger, Leopard, Wolf, Dholes, Goldenjackals, Sloth bear, Chousingha, Blackbuck, Nilgai, Sambar, Spotted deer, Chinkara, and Indian giant squirrels.Also found are many kinds of birds, and reptiles such as Mugger crocodile, Python, Cobra, and Krait. Spreading over a wide area of over 806 sqkm, the sanctuary is a rich display of various different species of flora and fauna. The sanctuary is bordered by the ever-beautiful Laknavaram Lake which makes it the most perfectly positioned and sought tourist destination in the state. Dominated by a thick blanket of vegetation and timber species, the sanctuary also houses one of the most quality teak woods in our nation. Along with this cover, Eturnagaram has exquisite species of wildlife like Indian Gour, Giant Squirrel, Sloth Bear, Indian Bison, Black Buck, Chinkara, Tigers, Four Horned Antelope and many more. The sanctuary is beautifully divided into two parts by a waterbody named Dayyam Vagu in the local language. Eturunagam wild life sanctary IUCN category IV area(habitat / species management area.

**Keywords**: Wild life,Sanctuary,Exquieite species.

# Analysis of Paddy field Soil Samples from Bramhapuri Tehsil of Chandrapur District in Maharashtra for its Physico-chemical parameters

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**Abstract**

In the present study physico-chemical parameter study of village paddy field soil samples from Bramhapuri Tahsil, District Chandrapur, Maharashtra, India has been studied for the period of 2 years from January 2020 to January 2022. Bramhapuri Tahsil has more than 80% area under rice cultivation ,and total crop area is 294.23Km2. Soil samples were collected from Surbodi, Kurza, Bondegaon ,Kahali and Khandala villeges of Bramhapuri taluka to study the physico-chemical parameters. The colour of soil from five sites was black ,Texture of soil was clay, clay loam and loam , The value of soil pH found to be 6.8 to 7.3 .Electrical conductivity was range from 0.061to 0.158 dSm-1 ,Total Organic carbon was found to be 0.47to 0.59 %,Bulk density was found to be 1.46 to 1.94 g/cm3, Porosity was found to be 21.9 to 27.0 %,available nitrogen (N) was found to be 267 to 299 Kg/ha .available phosphorus(P) was range between 34.5 to 45.8Kg/ha, available potassium(K) was range between 168 to 335Kg/ha ,cation exchange capacity was found to be 17.53 to 23.51 meq/100gm.

**Keywords**: Physicochemical parameters, Bulk density ,Total Organic carbon, Electrical conductivity.

# Role of Nanocarriers and Nanosensors in Drug Delivery System: A Review

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**Abstract-**

Nanotechnology has gained acceptance in several commercial enterprises, as it offers powerful and more innovative products. The implementation of nanotechnology in medicine and healthcare is referred to as nanomedicine. It has been used to combat some ordinary as well as chronic diseases. Nanotechnology is the utilization of the distinctive properties of materials at the nanoscale. Nanotechnology has had a noteworthy impact in more or less all industries and areas of the communities as it provides strong and more reliable, guarded and cleaned, enduring and novel products for therapeutics, communication, daily life products, agriculture and more industries. Nanomaterials allow the mass production of products with increased usefulness, significantly cheap, and flawless mass produce processes, to improve healthcare and reduce the effect of formation of medicines. This present review provides the role of nanocarriers and nanosensors in drug delivery and discussed the recent development in nano-technology in the magnificent area of imaging and delivery of drugs in the body system.

**Keywords**: Nanocarriers, nanosensors, nanomedicine, diseases, drug delivery

# Depletion Of Natural Sunscreen: Causes And It's Effects

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**Abstract:**

**T**here are many human activities which Hazardous the environment, Ozone layer depletion is one of the major activity among them. The study implies that the excessive use of Halons, Chlorofluorocarbon (CFC), and other destructive gases causes fastest depletion of ozone layer which is present in the stratosphere which results in emission of Ultraviolet radiation on the surface of earth and harms Human, crops and ecosystem. The study highlights the causes of ozone layer depletion on ecosystem especially on Human being, In addition to that ozone depleting substances and Protective measures to stop the depletion of ozone layer. Ozone Present in the upper atmosphere absorbs more than 95% of sun ultraviolet radiations and thus saves the mankind.

**Keyword**: Halons, Chlorofluorocarbon, Ecosystem, Ultraviolet radiation (UV), Ozone Depletion

# The Effect of Mycorrhiza on Growth Parameters and Antioxidant Activity of the Medicinal Plant 'Ruta Graveolens L.'

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**Abstract**

**T**his research investigates the effects of Mycorrhiza on the growth parameters and antioxidant activity of Ruta graveolens L., a medicinal plant. Medicinal plants are essential for natural healthcare and play a pivotal role in traditional and modern medicine. Mycorrhiza, a symbiotic relationship between plant roots and fungi, enhances plant growth and nutrient uptake. In this study, the impact of Mycorrhiza on Ruta graveolens L. is assessed. Results indicate that Mycorrhiza positively influences plant growth, including plant height, fresh weight, root length, and dry weight. Phytochemical analysis reveals the presence of bioactive substances, and LC-MS analysis detects the active component Rutin. Antioxidant activities, including DPPH scavenging and reducing power, are enhanced in Mycorrhiza-treated plants. This research highlights the potential of Mycorrhiza in improving the growth and health benefits of medicinal plants, supporting traditional medicine and sustainable agriculture. So, Mycorrhiza stands as an eco-friendly solution due to its role as a natural biofertilizer supporting sustainable plant growth.

**Keywords**: Ruta graveolens L., Satap, Mycorrhiza, VAM, Growth parameters, Biofertilizer, Antioxidant activity.

# Role of Education in Sustainable Development

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**Abstract: -**

The World Commission defines Sustainable Development as 'development that meets the needs of the present without compromising the ability of future generation to meet their own needs'. In 2015, the UN Member States, adopted the 2030 Agenda for Sustainable Development, to achieve their vision of Sustainable World. The member states are signatory to achieve 17 Sustainable Development Goals by 2030, based on the three dimensions i.e., economy, social development and the environment. However, rising climatic changes, poor economy, international conflicts and pandemic have placed the vision 2030 of Sustainable Development in peril. In current scenario, education can play pivotal role in meeting the SDGs. There are many environmental challenges like Global Warming, Ozone Layer Depletion, Climate Change, Pollution, Biodiversity loss, etc. which the world is facing today. Education plays an important role in creating awareness about these environmental issues among the students, who are the stakeholders of future. Through education, these youth can learn to live in a sustainable way. Education empowers the learners to participate in environmental policy and decision making to safeguards the environment.

The study proposed here focus on the role of education in sustainable development. This study will evaluate the importance of education for meeting the vision of SDGs.

**Keywords:** - 2030 agenda, international conflicts, Climate Change, stakeholders, safeguards.

# Role of an Individual in Conservation of Natural Resources

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**Abstract**

Several studies and researches have been conducted on the role of an individual in conservation of natural resources however what exactly constitutes natural resources? How much do we know about how it is classified? How to conserve it? The present paper seeks to examine these vital questions with a view to providing answers from previous studies. The paper employed a desktop approach to provide answers to the research objectives. Specifically, the paper uses a descriptive approach to gather information from peer reviewed publications such as, journal articles, environmental organizations reports and books. It was found that, Man is the only organism who has disrupted the delicate balance existing in the natural ecosystem of earth to fulfill its infinite requirements. It is not at all the fact that, man should not use the natural resources but

using in excess and unplanned way, gives rise to an unbalanced condition in the environment.Therefore, proper utilization and management of nature and its resources should be made, which may be termed simply as conservation.

**Keywords**: Environment, individual, natural resources, conservation.

## Sustainability and Carbon Footprint

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**Abstract:**

The carbon footprint originates from the concept of ecological footprint, which is a measure of human demand on the Earth's ecosystems. It is a standardized measure of demand for natural capital that may be contrasted with the planet's ecological capacity to regenerate. The procedures used to conduct studies on various carbon footprints are the main topics of this work. The study is carried out on principles of sustainability, the balance of sustainability, sustainable measure in different sectors, sustainability measures in everyday life, and measures to reduce carbon footprint including tiny house evolution in India.

**Keywords**: Carbon footprint, ecological footprint, sustainable measures, sustainability.

## Environmental Awareness towards Sustainable Development

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**Abstract**

Environmental awareness and education in the 21st century are crucial for fostering a deep understanding of the environment issues. Educational institutions, particularly schools and universities, play a pivotal role by disseminating knowledge, promoting critical thinking, nurturing responsible citizenship, and driving research and innovation. Beyond education, environmental awareness extends to skills-based work, offering sustainable employment opportunities in green jobs. At the industrial level, sustainable practices, including corporate social responsibility initiatives and technological innovations, mitigate environmental harm and enhance industry reputations. Challenges such as limited awareness, resistance to change, economic considerations, and policy issues must be overcome through strengthened legislation, educational reforms, collaboration, and research. These efforts collectively contribute to a harmonious coexistence between humans and the environment, advancing sustainable development and responsible stewardship of our planet.

**Keywords**: Environmental Awareness, Education, Sustainable Development and Green Jobs

# Impact of Festivals and Adaptions to Eco-Friendly Practices and Green Methods in Festivities for a Sustainable Future

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**Abstract:**

India is well known for various religious festivities. Festivals have an important role in Indian Culture most of these festivals celebrated in India are very hazardous to environment and ecology. The present paper focuses on the impact on environment during the celebration of major festivals such as Deepawali, Holi & Ganesh Chaturthi. The immersion of idols, the celebrations through fire crackers or colors cause ecological overload in water bodies mainly the rivers. This paper examines that activities of all these festivals cause a huge pollution in terms of water pollution, air pollution & noise pollution and the hazards caused to environment due to the increasing usage of non-biodegradable materials during festivities. The paper further highlights the measures to be taken at various levels and also suggest managerial functions in managing eco-friendly festivals for a sustainable environment. As we all noticed that during Covid pandemic there was strict rules during festivities such as banning fire crackers, reduce in Ganesh idols & adapting to eco-friendly colors all these have a good impact on environment as there was decrease in hazardous substances usage and strict laws are imposed. By this, one should know the importance of sustainable practices. This paper suggests that all these sustainable practices can ensure better future for both people & environment when they incorporated into festival celebrations.

**Keywords**: Air and water pollution, Degradable, Eco-friendly, Environment Hazardous, Immersion

# Treatment and Disposal of Most Hazardous Bromine from Solid Waste In Udaipur Using Remote Sensing and G.I.S. Techniques

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**Abstract:**

Udaipur, the city of lakes and tourist city currently faces the challenges of Hazardous Solid Waste Management(S.W.M.). The environmental health of a city depends on the Hazardous S.W.M.This problem considered as a low priority area by Government and U.M.C.This paper studies focuses on the present scenario of public and disposal units of government and semi government, private units's awareness towards this problem and their Hazardous Solid Waste related management practices, Status and impacts of improper disposal and management of Hazardous solid waste from various industries and solid waste products and residues of many

forms on dumpsites and different recycle industries under R.I.I.C.O. that directly affects our environment through many ways like pollution point of view and role playing in climatic change through field survey based observation Bromine data and 3 D Bar graph presentation shows comparison of quantity of that waste yearwise simultaneously it suggests better management strategies and plannings for sustainable development approach.

**Keywords**: Hazardous, Solid Waste,Bromine, Treatment, Disposal, Ph Scale, Neutralisation, Extraction, Sludge,Sea Brine.

## Requirement Of Accurate And Innovative Solid Waste Management Practices For Sustainable Development In Udaipur

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**Abstract:**

**U**daipur, the city of lakes and tourist city currently faces the challenges of Solid Waste Management (S.W.M.). The environmental health of a city depends on the S.W.M. This problem considered as a low priority area by Government and U.M.C. This paper studies focuses on the present scenario of S.W.M. services in the city, public awareness towards this problem and their Solid Waste related accurate management practices, Status and impacts of improper disposal and management of solid waste on dumpsites that directly affects our environment through many ways like pollution point of view and role playing in climatic change through field survey based observation simultaneously it suggests better management strategies and plannings for sustainable development approach because it's a necessary requirement.

**Keywords**: Sustainable, Innovative, Disposal, Neutralization, Green waste, Solid waste, Ph scale.

## A Study on the Challenges Faced By Transgender in Kanniyakumari District

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**Abstract:**

**T**ransgender is an umbrella term used to describe individuals whose gender self-identity or expression violates established gender norms. Transgender people are men, women, both, or

both who do not conform to their assigned gender, but the phenomenon of transgender people is uncommon, but with more media attention on the subject, more teenagers and young adults are "coming out." at an earlier age. Finding comprehensive medical and mental health services is extremely difficult as these youth face many psychological problems, including family and peer rejection, harassment, trauma, abuse, inadequate housing, legal problems, lack of financial support, and educational problems. Transgender people are a part of society and everyone has equal rights in everything in the world. Not new, but their presence can be seen from many scripts since ancient times, because nature may need such a class to maintain balance. Discrimination is the most important aspect we need to think about. Discrimination based on their class and gender makes transgender people one of the most vulnerable groups in Indian society. This research paper has been published with an aim to identify the problems of transgenders in Kanyakumari district.

## Environmental Awareness in Rachel Carson's The Silent Spring

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**Introduction:**

The Silent Spring taken for the study is a ground breaking work in the Environmental Literature. This book had awakened the world by stating the dangers of unchecked use of pesticide. Through Rachel Carson's way of storytelling and arguments the book sheds light on the shocking consequences of the human activities on the natural world. The present paper urges to probe into the exploration of indiscriminate use of pesticides, with primary focus on notorious chemicals like DDT. This paper will be a call to action, insisting the readers to consider the long-term repercussions of human actions and advocate for responsible stewardship of the earth. Rachel shows the ecological interdependence in a way emphasizes the intricate connections between all living organisms. In a sense illustrates that how the harm inflicted on species can reverberate throughout entire ecosystem, disrupting balance of nature. The author exposes the unintended consequences of human actions like widespread use of pesticide, habitat destruction and pollution through powerful examples she highlights the impacts on wildlife and human health. In this book, author skillfully presents the series of pivotal events and revelations to support her arguments. Through the notable moments she has shaped the narration of the text. This paper attempts to show the rise of chemical pesticides around the world, by taking a historical journey in a way to explore the adoption of chemical pesticides. Thereby shows the allure of powerful tools and subsequent ecological imbalance caused by humans' unregulated and excessive use.

## Perspectives in Ecofeminism and the Present Scenario

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**Abstract:**

The relationship between climate and social issues is a well- known one, yet it's frequently overlooked. Ecofeminism has inspired activists and artistic movements, the Chipko movement in India, the Green Belt movement in Kenya for illustration. Ecofeminism also offers a

critical perspective to assay and interpret a piece of literature, culture. Ecofeminism is an testament and movement that views climate change, gender equivalency, social justice. There are several sub-branches of this movement, including submissive ecofeminism, spiritual ecofeminism, and materialist ecofeminism. Eco feminism began in academic circles in North America and Europe in the 1970s, as a branch of the feminist movement. In the 1980s, Eco feminism began to impact feminist and environmental activists and cultural movements. By the late 1990s, still, eco feminism came under review from critics who argued that the frame was essentialist, meaning it couldn't address both feminist and environmental enterprises at the same time. All eco feminists endorse a revaluation of wisdom to fete the part of subjectivity and suspicion. They also support the creation of a new worldview that celebrates all natural systems as naturally precious. Eventually, they demand to break these problems through positive and non-violent means. The present paper is a humble attempt to explore the Perspectives in Eco feminism and the Present Scenario

**Keywords** – Ecofeminism, hetero-patriarchy, oppression and domination, environmentalism and feminism

## The Impact of Natural Environment on Literature

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**Abstract:**

The relationship between the natural environment and literature has been a recurring and influential theme throughout the history of literary expression. This research paper explores the profound impact of the natural world on the creation of literary works, with a focus on its historical significance, thematic influences, and contributions to cultural and environmental awareness. Examining the historical roots of nature-centered literary movements, such as Romanticism and Transcendentalism, this paper delves into the works of renowned authors who have ingeniously integrated nature into their writings. Through case studies, it illustrates how the natural environment has played a central role in shaping literary themes, motifs, and symbols. It highlights the cultural and historical contexts that have influenced these portrayals, culminating in the rise of eco-criticism and the utilization of literature as a catalyst for environmental activism. This study underscores multifaceted relationship between nature and literature, a relationship that continues to evolve in response to contemporary environmental challenges.

**Keywords**- Eco-criticism, Romanticism, Transcendentalism, environmental challenges, environmental activism

## Natural Resources Reflected in Literature

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**Abstract:**

Natural resources have been a prominent theme in literature, reflecting humanity's

complex relationship with the natural world. Throughout literary history, writers have drawn inspiration from the bounties and beauty of natural resources, as well as the conflicts and consequences that stem from their extraction and use. In romantic poetry, the picturesque landscapes of the countryside and abundant resources like forests and rivers have been a recurring motif, celebrated for their aesthetic qualities. Writers like Wordsworth and Thoreau used these settings to explore themes of transcendentalism and the sublime. Conversely, the quest for valuable resources, such as gold or oil, has driven plotlines in countless novels, often depicting the allure and greed associated with these commodities. Works like "The Treasure of the Sierra Madre" by B. Traven illustrate the destructive power of resource-driven obsessions. In modern literature, a growing concern for environmental sustainability and the depletion of natural resources is evident. Authors like Barbara Kingsolver in "Prodigal Summer" and Cormack McCarthy in "The Road" address the consequences of resource scarcity and the impact of human actions on the environment. Natural resources have been a multifaceted presence in literature, serving as symbols of beauty, wealth, and environmental responsibility, offering readers a glimpse into the evolving relationship between humanity and the natural world. "Natural Resources Reflected in Literature" is to explore and analyze the various ways in which literature has depicted and engaged with natural resources throughout history.

**Keywords**- Natural resources, ecology, countryside, landscape, environment, exploitation

# The Study of Enviornmental Impat on Human Behavior with Reference to William Shakespeare's 'As You Like It'

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**Abstract:**

**T**here is great impact of enviorment on human-nature and behaviour. When human-being lives in the lap of nature, his life is happy, content and carefree. Sound mind recides within a sound body. Nature's company gifts human with healthy body and healthy mind through simple hard and tough life. The hard work makes him happy and content, love and compassion for other increase in his mind. Williams Shakespeare's welknown play, 'As You Like It' presents the picture of natural life in the forest in contrast to the court-life which is full of greed, competition, fear, usurpation and conspiracies. It deals with the parallel stories of brothers : one good and the other evil or wicked. Duke Frederick, the younger brother usurps the kingdom of Duke Senior and expels him out of his kingdom. But, the Senior Duke, who is kind and generous, lives a happy life in the forest with his faithful friends who accompany him to the forest.Duke Frederick, though in power, always lives with anxiety that his brother will gather army and invade him to gain back his kingdom. So, in order to kill him in the forest when he is powerless, he arrives to the forest of Arden. But, there he meets a hermit and his mind gets changed by his preaching. He realises his own mistakes returns the kingdom to Senior Duke and decides to live in the forest. By the positive impact of natural environment, the evil nature of Duke Frederick is changed and he becomes good.In the same way, the play presents another pair of brothers : Oliver and orland the sons of late Sir Rowland De Boys. Here the elder brother Oliver is wicked who tries to kill Orlando to usurp his share in his father's property. Orlando's servant saves him from the conspiracy and he

goes to the forest to save his life. Oliver also comes to the forest in search of Orlando. But Orlando saves him from a lion and a snake by risking his own life. This brings change in Oliver. He realizes his mistakes. Thus, the company of nature brings positive changes in the nature and behaviour of wicked people. The people who are good at heart become more generous and noble. They live happy life full of content with love and compassion for others. There is positive impact of natural Envirorment On Human Nature And Behaviour.

**Keywords:-** Enviornmental Impact, human nature and behaviour.

## Literature and Social Sustainability

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**Abstract:**

**W**hat is sustainable in literature This paper tries to explore the most commonly accepted definition of sustainability is ‘’meeting the needs of the present without compromising the ability of future generations to meet their own needs.’’The three pillars of sustainability are - environmental, economic and social .Sustainability is often taken to counter major environmental problems ,including climate change ,loss of biodiversity and ecosystem services ,land degradation and air and water pollution .The idea of sustainability can guide one at international ,national and individual levels. The social dimension of sustainability is defined as that a society is sustainable in social terms if people do not face structural obstacles in key areas .These key areas are health, influence ,competence ,impartiality and meaning making .Some scholars believe that social issues are the main topic of discussion .They suggest that all aspects of sustainability are social. These include ecological, economics, political, and cultural sustainability All these aspects depend upon the relationship between the social and the natural. The ecological aspect is defined as human embeddedness in the environment. that means social sustainability encompasses all human activities.There are many broad strategies for more sustainable social systems . They include improved education and political empowerment of women. This is especially the case of developing countries .They include greater regards for social justice .This involves equity between rich and poor both within and between countries .It includes intergenerational equity .Providing more social safety nets to vulnerable populations would contribute to social sustainability would lead to livable community with a good quality of life [being fair ,diverse connected and democratic ].society with a high degree of social sustainability .

## Sustainable Development and Education

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**Abstract:**

**O**ne of the most significant and required assignment to do in this day and age is to

guarantee the supportability of the assets the planet has and simultaneously to guarantee the prosperity of people living on this planet. There is clear need which should be visible is to make the training more successful and proficient in schools. Also, for this, each partner of the school local area must be sharpened towards supportability and ought to comprehend how their job is crucial in the present time. One need to comprehend that training is the way to maintainable turn of events and simply discussing the 'Practical Improvement' idea in schools and organizations won't take us anyplace. We as a whole need to get up and begin dealing with this, not the only one yet together. There is a need to re-look and return to every single part of the training being shown in schools. Schools educational plan have been planned throughout the years according to the viewpoint of manageable training yet it must be carried out in a successful way. This article will zero in on the UN Manageable Improvement Objectives (SDGs), especially, the SDG 4, Guaranteeing Comprehensive and Fair Quality Schooling. The creator had checked on the current writings on viewpoints rotating around Feasible Turn of events and Training, shared his own encounters in the paper alongside existing speculations/models and had attempted to make reference to the difficulties looked by schools and great practices that schools, colleges and instructive organizations can take on for Training for Maintainable Turn of events.

**Keywords**: Maintainable Turn of events; Feasible Improvement Objectives; School Training; Schooling for Feasible Turn of events.

## Climate Change Impact on Agriculture: Mitigation and Adaptation Methods for Cuddalore District

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**Abstract:**

Climatic change and change in pattern of monsoon agriculture is badly affected in many areas. Agriculture is the backbone of India's economy which is highly dependent distribution proper monsoon rainfall. Due to drastic change in climatic change there is detrimenatl impact on agriculture. Livelihood of the people is affected to great extend .It is highly vulnerable because it lies with gentle slope and so there is dramastic change in climate. There is necessary to identify the vulnerablity indicies to develop the disaster management to that region by the local government. The effects of the climatic change should be controlled by proactive policies. In this study metrological data have been analysed statically and have been forecasted for Cuddalore district. The district is located near the coast of Tamil Nadu, which has a drastic change in climate on the past few years. The changes in the metrological parameters have been studied and the rainfall data is forecasted till 2050. A comparison is made between the two models used. The outcome of this study will be of use in the protection of coastal livelihoods and planning better adaptation policies and mitigation plans. This study shows an analysis of crop–climate relationships in cuddalore, and gives the change in pattern of agriculture from past years. This paper gives the impact of climatic change on agriculture and its mitigation and adaptation measures for cuddalore district.

**Keywords**: Agriculture, Crop production, multiple linear regression method, ARIMA model, Vulneribility

# Sustainable Development Goals -Obstacles and Opportunities in India

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**Abstract:**

**S**ustainable development is important because it is the only way to ensure that we can meet the needs of a growing population while also protecting the planet. We need to find ways to produce and consume goods and services in a more sustainable way, and we need to protect our natural resources for future generations. Sustainable Development Goals are based on the universal principle of 'leave no one behind' according to the national development goals of India, Weightage has been given to SDGs and India is expected to play a leading role in determining the success of the SDGs. There are many challenges to achieving sustainable development, including climate change, poverty and inequality, economic growth, consumption patterns, and governance. However, there are also many opportunities, such as new markets and jobs, reduced costs, improved competitiveness, improved health and well-being, reduced poverty and inequality, and enhanced social cohesion. Invest in renewable energy and energy efficiency, reduce our consumption of resources, and support sustainable businesses and products. We also need to ensure that sustainable development is inclusive and equitable. This means ensuring that all people have means ensuring that all people have access to the resources and opportunities they need to thrive.

**Keywords**-Sustainable development, India, Obstacles and Opportunities

# Narmada Canal as a Life Line of Domestic Water Supply for Bhuj, Kutch of Gujarat

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**Abstract:**

**W**ater, a fundamental resource, is indispensable for life and development, particularly in arid regions like Bhuj, Gujarat, India. This study explores Bhuj's deep reliance on the Narmada River as its primary water source, tracing its historical significance and contemporary challenges. Historically, the Narmada River has been a cornerstone of Bhuj's growth, enabling agriculture, settlements, and economic activities. Over five decades, Bhuj's water supply has undergone a significant transformation. Within Bhuj City's boundaries, 30 lakes grace the landscape, with Hamirsar Lake as a prominent feature. Constructed approximately 450 years ago, Hamirsar Lake once served as a lifeline in this arid district. Local rulers engineered a complex network of tunnels and canals, converging water from three distinct river systems into Hamirsar Lake to ensure water sufficiency for Bhuj. Later in 1968- 69, the introduction of a piped water supply system marked a turning point. Bhuj Municipality, responsible for safe drinking water, extended its reach 11 kilometers eastward to Kukma village in search of additional water sources. In 1970, nearly 26 borewells in Kukma and 4 within the city supplied 2 Million Litres per Day (MLD) of water, contributing to around 30% of the total water supply. Since 2004, Bhuj Municipality has received

water from the Narmada canal, initially at 4 MLD, which has since increased to nearly 40 MLD in 2022. This study examines the intricate network of canals, pipelines, and reservoirs transporting Narmada water to Bhuj, addressing challenges related to water quality, infrastructure maintenance. It also investigates the socio-economic implications of Bhuj's reliance on the Narmada, emphasizing the need for sustainable water management practices and equitable distribution among stakeholders. In conclusion, this research underscores the Narmada River's pivotal role as the lifeline of Bhuj's water supply system. It emphasizes the critical importance of preserving and responsibly managing this invaluable resource to ensure Bhuj's continued development and resilience. As Bhuj's future is inextricably tied to the Narmada, this study calls for proactive measures and collaborative efforts among policymakers, local authorities, and the community to safeguard this essential dependency for generations to come.

**Keywords**: Narmada River, Bhuj, Water, Sustainable, Socio-Economic.

## Removal of Cr (VI) From Effluent by Physicochemical Method

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**Abstract:**

**D**etermination of Cr(VI) was done by spectrophotometric method and volumetric method. In volumetric method iodometric titration was used, and in spectophotometric method used Diphenyl carbazide reagent (method describe in Volgel, 1964). When analysis of electroplating effluent was carried out the concentration of Cr(VI) was 70.72and pH 1.52. With the help of UV-Visible spectrophotometer, concluded that effluent having Cr(VI) in dichromate form in effluent. In first step Cr(VI) is convert to Cr(III) by using biomass material such as cabbage leaves. In this case Cr(III) in effluent that is reduction of Cr(VI). During this process different parameters are affecting reduction reaction such as Effect dose of reducing agent, effect of pH, effect of amount of reducing agent, period required for achievement of reaction, effect of temperature, effect of stirring rate, etc.This reducing agents are effectively used for reduction of Cr(VI) to Cr(III). In the next step, comprehensive abstraction of Cr(III) from resultant solution treated with biomass material as a reducing agent was tried by using activated charcoal. We observed that pH at which Cr(III) get completely reduced at pH 6.5 on activated charcoal as an adsorbent. In presence of activated charcoal as a adsorbent nearly 99.98 % removal was achieved without oxidation of Cr(III) to Cr(VI).

**Keywords**: Chromium; reduction; electroplating effluents; removal

## Smart Agriculture Through Internet of Things

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**Abstract:**

**R**ecent researches hypothetically showed the potential of Internet of Things (IoT) to change major industries for a better world, which includes its impact towards the agriculture industry. Farming industry must grasp IoT to feed 9.6 billion of global population by 2050.The article is comprised of devices, and wireless communication technologies associated with Internet of Things (IoT) in agricultural and farming applications are focussed. Investigations are made on those sensor enabled IoT systems that provide intelligent and smart services towards smart agriculture. The goal of this survey is to help potential researchers detect relevant IoT problems and, based on the application requirements, adopt suitable technologies. Furthermore, the significance of IoT and Data Analytics for smart agriculture has been highlighted. In this study, the bibliometric analysis has also been conducted with 3107 contributions published for a period of ten years (2013 to 2022). This study has adopted a various scientific parameters such as number of publications based on country, keywords and year.

**Keywords**: IoT, Agricuture and Farming, Bibliometric Analysis, Smart Devices

## Green Development and Science

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**Abstract:**

**G**reen economy has as of late arisen as a critical idea on the worldwide economical improvement plan. Over the course of the past 10 years, India's fast development has set out work open doors and aided better the way of life. Be that as it may, its striking development record is limited by a debasing climate and exhausting normal assets, which has required finding a way significant ways to accomplish a green and decarbonized economy. Coronavirus has directed shoppers' concentration toward a greener economy, inciting brands to depend on maintainability naturally. Thusly, with the guide of the public authority and enterprises, India should make the progress to a round economy. Urbanization is a worldwide peculiarity; however it is filling quickly in emerging nations like India. A Unified Countries report shows that 60% of the worldwide populace would live in metropolitan regions by 2030. Right now, Asia is home to 90% of the world's rustic populace. In any case, the locale is seeing an outstanding expansion in urbanization, and its rate is supposed to reach 56% by 2050.

**Keywords:** Green economy, innovation, fundamental

## Physicochemical characterization of Jaggery sample

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**Abstract:**

**J**aggery is the sugarcane based traditional Indian sweetener. Jaggery is nutritious and easily available to the rural area. In the present investigation were carried out for determination physicochemical characterization such sucrose, reducingsugars, pH, protien content, Moisture, ashcontent and colour according to standard procedures. Jaggery is sugarcane based natural

sweetener made by the concentration of sugarcane juice without any use of chemicals. It contains the natural sources of minerals and vitamins.

**Keywords**: Jaggery, Physicochemical characterization, sucrose, reducing sugar

## Ozone Layer Depletion

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**Abstract:**

**T**here are numerous circumstances where human exercises altogether affect the climate. Ozone layer harm is one of them. The goal of this paper is to audit the beginning, causes, components and bio impacts of ozone layer exhaustion as well as the defensive proportions of this evaporating layer. The chlorofluorocarbon and the halons are intense ozone depletors. One of the fundamental explanations behind the boundless worry about consumption of the ozone layer is the expected expansion in the measures of bright radiation got at the outer layer of the earth and the impact of this on human wellbeing and on the climate. The possibilities of ozone recuperation stay dubious. Without even a trace of different changes, stratospheric ozone overflows ought to ascend in the future as the halogen stacking falls in light of guideline. Be that as it may, the future way of behaving of ozone will likewise be impacted by the changing environmental overflows of methane, nitrous oxide, water fume, sulfate spray, and evolving environment.

**Keywords** – Bio impacts, chlorofluorocarbon, Ozone Layer Consumption, Insurance

## Analysis and Application of Game Theory in Algorithm Design & Computing Problem.

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**Abstract:**

**T**his article is the analysis of the game theory and computer science to develop a better algorithm to resolve real life problem. Historically the game theory6 widely use in Economics, resources allocation and mathematics itself. The revolution of using computer in mass level and most of the work done through internet so this game theory is also widely use in cybersecurity auction design artificial intelligence social network analysis.

**Keywords**: Game theory, utility function, Algorithm design, Cybersecurity, Auction design, Distributed systems, Artificial intelligence, Social network analysis, Decision-making, Resource allocation, Multi-agent systems

# The Role of Satellite Remote Sensing In the Environmental Sustainability

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**Abstract:**

Remote Sensing (RS) using satellite has a wide range of applications in the environment. Satellite remote sensing has enabled observations of environmental changes at inaccessible locations such as in meteorology to measure solar radiation intensity, geothermal energy, and wind velocity. In the field of disaster control, satellite remote sensing is used for forecasting natural disasters such as floods and earthquakes, as well as estimating damages. In agriculture, it is utilized to monitor crop growth and identify potential threats. In oceanography, satellite remote sensing plays a crucial role in mapping surface area topography, phytoplankton content, currents, and winds, which helps establish habitat linkage between oceanographic processes and fishery resources. It is also applied in glaciology to monitor and map the temporal dynamics of glaciers, and in geology to study mineral composition in the ground. Overall, satellite remote sensing is an essential tool in environmental resource management processes due to its speed and efficiency in gathering information. It also provides a vast scope to explore, identify, and analyse the natural resources of undeveloped regions. It documents the dynamic changes in physical processes and resulting landforms, usually by satellite images. This paper provides a general overview of remote sensing.

**Keywords**: Satellite remote sensing, Meteorology, Agriculture, Satellite images, Disaster.

# Food and Nutritional Security through Agriculture

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**Abstract:**

Nutritional security is defined as “a situation that exists when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Agriculture and food are assumed to be critical determinants of stunting and micronutrient deficiency. However, agriculture research for development has not translated as expected into better nutrition outcomes. We argue that to do so, agriculture research needs to be fundamentally changed, from the current emphasis on supply-side production and productivity goals to understanding consumption and addressing factors that

can improve diet quality. Some of the research will be to improve the efficiency of supply for more nutritious foods. Other research will need to focus on factors that promote diet quality rather than focus on food security goals through stocks of staple cereals. Because of its importance in low-income, high-burden countries, agriculture can also contribute more effectively to multispectral nutrition-sensitive development strategies and programs.Agriculture contributes about 18.8% to India's gross value added (GVA) and is the largest employer of the workforce (2021-22). There is an urgent need for reorientation of the long- term direction of agri-food systems to not only enhance farm incomes but also ensure better access to safe and nutritious foods. Additionally, the agri-food systems need to be reoriented to minimize cost on the environment and the climate.The World Food Day (WFD) is observed on 16th October each year to highlight the need for regular access to nutritious food for the millions of people worldwide who cannot afford a healthy diet. The WFD has a different theme each year and for 2022 it is "water is life, water is food. Leave NO ONE behind". The theme assumes particular significance as the world is facing multiple challenges including, the COVID-19 pandemic, conflict, climate change, rising prices and international tensions affecting global food security.

**Keywords**: Agriculture-nutrition, Diet quality. , Food Security, Climate change

## The Application of Nuclear-Renewable Hybrid Energy System (HES) In Social, Economic and Environmental Sustainability.

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**Abstract:**

The main purpose of energy sources is to meet the needs of human beings and make their lives more comfortable and productive. Energy is essential for the improvement of living standards and wellbeing, lifting people out of poverty, creating new jobs, ensuring food security, and improving societal cohesion and inclusiveness. But today the world is facing a severe energy and environmental issues that affect on social and economical development of a country. A challenge that is for developed countries like India how to secure competitive and clean energy for its citizens against a backdrop of climate change, escalating global energy demand and future supply uncertainties. In this way United Nations set numerous Sustainable Development Goals (SDP) . But without switching to alternative energy sources these goals can't be completed. Most of energy sources are fossil fuels that plays an important rule in global warming. The dependency on combustion of coal, oil and gas for energy cannot be indefinite. Thus, the process of replacing fossil fuels with many energy technologies cannot be avoided in order to combat this high dependency. Nevertheless, we argue that in the long term, nuclear fission technology and renewable energy source is the answer to the ever increasing demand for energy. This entails that nuclear fission. Nuclear energy and re-newables are the two principal options for low carbon energy generation. This entails that Nuclear–renewable hybrid energy systems (HESs) consider opportunities to couple these energy generation sources to leverage the benefits of each technology to provide reliable, sustainable electricity to the grid and to provide low carbon energy to other energy use sectors. Nuclear–renewable hybrid energy systems has to play a major role in supplying energy in this age and beyond.

**Keywords** : Nuclear–renewable hybrid energy system, carbon emission, social development,

# Isolation of Fungal Rhizospheric and Endophytes from Passiflora Edulis, Its Antibacterial Effect and Metabolites.

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**Abstract:**

**F**ungal Endophytes are ubiquitous in the plant kingdom, with an estimate of at least few million species. Plants may serve as a reposition of innumerable number of micro organisms known as endophytes (Bacon and White, 2000; Strobel, 2002). According to Dreg Fuss and Chapela (1994) there are may be one million species of endophytic fungi in various medicinal plants. The existence of endophytes has been known for over one hundred years. The present study was done in Passiflora edulis which is known as passion fruit, a vine species of passion flower, belonging to the family Passifloraceae. It is cultivated in tropical and sub-tropical areas and native to Southern Brazil. It is rich in anti-oxidants, good source of fibre, controls diabetes and boosts the immune system. The fungal isolates include a total five fungi Trichoderma viridae, Cladorrhinium sp., Gliocladium fimbriyatum, Fusarium solani, and Alternaria alternata were isolated from rhizosphere while three fungi Cladorrhinium sp., Gliocladium fimbriyatum, Mycelia sterilia were isolated as endophytes from the plant Passiflora edulis. Three types of rhizosphere fungi Trichoderma viridae, Fusarium solani. Alternaria alternata were isolated which were found to be 50% of the population of total fungi isolated while one isolate of endophyte Mycelia sterilia was isolated which was 16.6 %.. The fungi common both as rhizospheric and endophytic include two isolates Gliocladium fimbriyatum and Cladorrhinium sp. accounting to 33.3 % of the total population of the isolates. The isolated fungal endophytes from Passiflora edulis including Gliocladium fimbriyatum, Cunninghamella sp. and Cladorrhinium sp. and Mycelia sterilia, were cultured in broth medium and the antibacterial study was conducted by turbidity method and Agar Diffusion technique.Gliocladium fimbriyatum, the predominant fungi showed antibacterial property only against S.aureus, while Cunninghamella sp. and Cladorrhinium sp. showed inhibition of only against S.aureus. The endophyte Mycelia sterilia showed antibacterial activity only for S.aureus. Hence the fungal endophytes of Passiflora edulis with medicinal importance shows inhibition of the pathogenic bacteria. The fungi produced metabolites like acids, phenols and aldehydes.

# The Problems of Teaching & Speaking English in 21st Century India

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**Abstract:**

**I**n linguistic complexity India is almost like the continent of Europe. In this highly

multilingual context, the value of English Language can hardly be overestimated in the given situation. It has the status of an "associate official language". It is the dominant medium of communication in administration, higher education, industry and commerce, science and technology, journalism etc. English continues to be used as a link language across the country.

## Web 2.0 Tools and Their Use in Libraries

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**Abstract:**

**T**his paper deals with web 2.0 and its tools in the context of the libraries and information centers. Web 2.0 is like human. The theme of web 2.0 is a founder of theme 2.0 and it influenced the library services too. The web 2.0 could be seen as coequally part of the evolution revolution. Through it, users will see the face of the library and librarians will guide them via electronic methods. On the one hand it extends much of what we have been doing for years through the use of standards such as HTML, URLS and HTTP and ubiquitous web browser. On other hands it challenges the outdated attitudes towards the right of users, their choice and improvement. The advent of web 2.0 and its tools provide better library services in the present era.

## A Study on Emotional Intelligence, Mental health and Social Maturity of PUC Arts Boys and Girl Students

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**Abstract:**

**E**ducation is the part of human life it is very essential and valuable phenomenon. The knowledge can generate the good person. Today's education system is mainly focus on the success. Education has the Emotional, Psychological and Social aspects of the student which are important stages of academic psychology

## Barriers in the process of Library Automation and its Solution

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**Abstract:**

**W**e were slow to explore the automation world as the custom software development entails substantial investment and the off the shelf software packages are either too costly or do not meet all the requirements. However, the several library automation protects have been embarked in recent years, as the librarians could not ignore the power of the library automation in order to meet up with the rest of the world in the trend of information management and dissemination.

**Keywords**: Library Automation, Digital, Data, Koha

# Impact of Covid – 19 0n Agricultural Sector

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**Abstract:**

The Paper is focusing on corona decease and impact of COV ID – 19 Agricultural sector and government policies. According to the Canadian study 2001, approximately 500 patients were identified as Flu-like system. Depression and stress in peoples due to CORONAVIRUS was observed by doctors. So it is clear that human infertility may not affected by CORONAVIRUS but it will reduced due to depression and stress of patient due to treatment or isolation of corona infected patient. Lockdown due to COVID -19 resulted tremendous impact on society. Cultivators and related professionals lose their income while some face the wrath of unemployment. Accordingly, small and marginal farmers, landless farm laborers, SMEs dependent on raw materials from agriculture and experience extreme challenges. Thus, the government is striving to provide alternative revenue until the economy falls back into its place.

# Integration of environment education for Sustainable development at Secondary school

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**Abstract:**

Environmental Education has generally been visualised as a multi-disciplinary area of study. The scope is broad based and encompasses physical, chemical, biological, social, cultural and human dimensions of study. All the dimensions are closely interrelated and influence one another. The themes, which emerge prominently, include interdependence of man and nature, ecologically and socially sustainable development, pollution and the problems it creates and the preservation and conservation of natural resources. The other themes that find a prominent place are population, human health, impact of science and technology, industrialisation, culture, ethics, agriculture and economics.

**Keywords**- Stages of school education, various methods-Field visits, Discussion, Project, Observation & Co-curricular activities.

# Environmental Awareness and Green Entrepreneurship: Exploring Success Stories in Eco-Friendly Small Scale Businesses

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**Abstract:**

This research paper delves into the dynamic intersection of "Environmental Awareness and Green Entrepreneurship," with a specific focus on "Exploring Success Stories in Eco-Friendly Small-Scale Business." Eco-friendly small-scale businesses represent beacons of sustainability, demonstrating how responsible practices can be profitable. The study systematically analyzes these businesses, emphasizing their success factors, environmental impact, and influence on ecological consciousness.The research relies on comprehensive secondary data sources, encompassing academic articles, government reports, case studies, and industry publications, ensuring a global perspective. Findings reveal the pivotal role of sustainability, innovation, and efficiency in the success of these businesses, as well as their role in cultivating environmental awareness.This research underscores the transformative potential of green entrepreneurship and paves the way for the replication of successful eco-friendly business models for a more sustainable future.

**Keywords**:- Small Scale Businesses, Green Entrepreneurship, Eco-Friendly and Environmental Awareness

# Environment and Health

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**Abstract:**

Enviournmental health is a broad and complex subject area which, its core, seeks to understand interactions of environmental factors with biological systems. Thus exploration of environmental health necessitates concerted multidisciplinary approaches to understanding and addressing environmentally influenced health outcomes. This reference module was assembled to focus on environmental health, but necessarily it encompasses a vast array of contributing topics. The environmental Health module itself is organized into broad topical areas, each of which is further subdivided into more specific subject areas. Here in we present information across the spectra of environmental medicine, environmental Toxicology, Global environmental issues, and social, economic, and policy issues, all of which influence environmental health.

**Keywords:** Introduction, Meaning, objectives, Methodology, Result and Discussion,

Conclusion, References.

## A Study of Disaster Management Systems in European Union Countries

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**Abstract:**

**D**isaster management systems are gaining more importance nowadays because of the increasing number of crises. Disaster management systems are different from country to country. Even developed European Union member countries follow different Disaster management systems. Defining the Disaster management characteristics of European Union countries may give an idea to understand the Disaster Management perspective of developed countries. Regarding the Disaster management policies in the EU, there are central government agencies (generally, the Ministry of Interior) that organize the workload needed for greater national or international efforts. This study aims to show the characteristics of important European Countries' emergency management policies and to understand the key factors for successful emergency policy in Europe.

**Keywords**:Disaster management, European Union, Organizational Learning, Emergencies, Crises and Extreme events

## Communication Tools for Sustainable Development

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**Abstract**:

**S**upportability has turned into a worldwide trendy expression. Worldwide business pioneers are showing profound worries about feasible strategic policies in the radiance of developing accentuation on supportable turn of events. Shoppers across the world are turning out to be steadily mindful of the natural effect of industrialization and understanding their job in adding to the climate through dependable utilization of items. The organizations embracing manageability measures appreciate better validity and picture among all partners including the buyers. Numerous business associations are putting forth attempts to make more extensive buyer mindfulness about utilization for maintainable turn of events and manageability advertising rehearses embraced by their associations. Showcasing correspondences strategies assume a basic part in speaking with the shoppers to impact their way of behaving towards reasonable utilization. The current paper manages dissecting showcasing correspondence strategies embraced for advancing climate well disposed or maintainable items and recommends a reasonable system for imparting maintainability promoting rehearses took on by business associations.

**Keywords**: Manageability, Showcasing Correspondences, Practical Turn of events ,Web-based entertainment, Manageability, Facebook, Advancement, Innovation.

# Role of Education in Advancing Sustainable Development Goals (SDGs)

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**Abstract:**

The Sustainable Development Goals (SDGs) represent a universal commitment to address pressing global challenges by 2030, ranging from poverty and inequality to climate change and environmental degradation. This research paper provides a comprehensive analysis of the pivotal role of education in advancing the SDGs. It examines the ways in which education acts as a catalyst for sustainable development, from raising awareness and building capacity to fostering innovation and promoting inclusivity. The paper also delves into the concept of Education for Sustainable Development (ESD) and its role in aligning educational systems with the broader objectives of sustainability. By exploring the interconnectedness of education and the SDGs, this research paper underscores the significance of education as a fundamental driver of global progress. Education is both a goal in itself and a means for attaining all the other SDGs. It is not only an integral part of sustainable development, but also a key enabler for it so education represents an essential strategy in the pursuit of the SDGs. To create a more sustainable world and to engage with issues related to sustainability s described in the Sustainable Development Goals (SDGs), individuals must become sustainability change-makers. They require the knowledge, skills, values and attitudes that empower them to contribute to sustainable development. Education is thus crucial for the achievement of sustainable development, and Education for Sustainable Development is particularly needed because it empowers learners to take informed decisions and act responsibly for environmental integrity, economic viability, and a just society, for present and future generations.

**Keywords**: Sustainable Development Goals (SDGs), Environmental Degradation, Education for Sustainable Development (ESD), Fundamental Driver, Global Progress

# A Critical Study on Impact of Natural Resources on Human Health

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**Abstract:**

One of the most common causes of mortality is lack of necessities. Environmental risks increase the risk of heart disease, cancer and various other diseases. Infectious diseases like cholera, diarrhea, dengue etc. are caused by untreated drinking water, poor sanitation and improper hygiene. The use of products and services affects the environment in various ways. For example, the products we buy contribute directly or indirectly to climate change, pollution, biodiversity loss and resource depletion in Europe and other regions through the product lifecycle. The five major human impacts on the environment are deforestation, global warming, overharvesting, pollution, and agriculture. This has led to massive species extinctions, a steady rise in sea levels and record

temperatures in the Earth's greenhouse atmosphere.

**Keywords**: natural resources, environment, human health, global warming, water, agriculture etc.

## A Historical Study of Socio-Economic Conditions of Maharashtra: A Descriptive Analysis

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**Abstract:**

In India, according to the caste system, people's living conditions, business culture, ethics are increasing greatly. Indian society is very ancient and it is largely dominated by Hinduism and it has been undergoing transition for the past five thousand years. Caste system is very important while studying socio economic political and cultural life in India. Man is living in society and trying to solve his needs and problems and he is trying to be successful in his life. As the Indian Hindu society is divided into different castes and sub-castes, people of different castes do not live in any region of India. The families in the Maratha community had a large amount of land, but the fragmentation of land every generation is dependent on nature and due to the increase in the cost of agriculture and production, the economic status of the community has decreased and their income, consumption, employment, unemployment, living conditions, social trends, demographic characteristics, education, health etc.

**Keywords**: socio-economic, Analysis, History, employment, need, income source, demand, standard of living, trends, protection etc.

## Water Quality and Health

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**Abstract:**

Water is a fundamental resource that sustains life on Earth. It plays a vital role in human health, agriculture, industry, and the environment. Access to clean and safe water is essential for maintaining the well-being of individuals and communities. In this article, we will explore the intricate relationship between water quality and human health, discussing the impact of contaminated water on health, the factors affecting water quality, and the measures to ensure safe and clean water.

# Environmental Sustainability and Work Ethics

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**Abstract:**

This study investigates the possibility of environmental sustainability and work ethics. The work environment tremendously influences the functionality, capability, potential, and productivity of every employee. The quest for successful development of strategies and methods to successfully inculcate work ethics among people is always looked upon. Work ethics are vital and relevant in today's changing scenario due to scientific and technological development, revolutionary globalization, and market economy. As a result, the environment has also been degraded. Earth is 4.5 billion years old but 300,000 years ago we started Homo sapiens. We have 225,000 new inhabitants on planet Earth. People are losing respect and connections with nature. Resources are becoming scarce. The world is practically getting ruined in the name of the "quest for development". This is an ongoing problem and it's wide. We all need to make this world a better place to live for ourselves and our future generations. Nature should be valued. Working ethics should be so developed that people should be adopting whatever possible behavior to adapt to their environment. Being rich and famous is not enough; people should decide to adopt work ethics that also address the environmental issues plaguing our world. People should not be using their desire for a comfortable life to spoil themselves. We cannot take this planet for granted. Strict measures, like carpooling to and back from the workplace to reduce the level of carbon dioxide, disposable plastic water bottles and cups should be banned. Even the building materials should be sustainable. This research shows that humans must accept the workplace as a natural resource and that they are its custodians. As a philosophical study, it takes a critical stance and applies textual and contextual analysis to reach its conclusion. We have to educate people and call for awareness

**Keywords**: work ethics, sustainability, environment, issues, promote environmental stability

# Effect of Industrial changes on Environment of Rural life

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**Abstract:**

While the general decline of populations in small towns and rural areas has reversed in many parts of the country, the decline of the smallest settlements and remoter areas has continued. These trends lead to different types of problems in different rural areas. At the same time concern has grown over the impact which a range of activities has on the rural environment, and this reflects both the consequences of rural activities themselves, as well as an increased level of demand. The rural development depends upon their environment . There are many inter-relationships between activities within rural areas and rural policies need to be developed to take these into account. The scope for integrated rural development is considered in this context and rural development is done by this only.

**Keywords**: Industrial development, Rural community, Environmental issues etc.

# Analytical Study on Land Ownership and Socio-Economic Status on Scheduled Tribes with Special Reference to Nashik District.

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**Abstract:**

**T**here is strong relationship between tribal population and land as their entire livelihood depends on land, which they posses. The concepts of land holding have come up among the tribes since then they have shifted from primitive to shifting and now to sedentary agriculture. Their economics status depends upon the size and quality of land, which they hold and cultivate. It is mostly realized from the fact that tribal's in the state of Maharashtra or elsewhere are mainly conflict to hilly and forest areas, which are relatively less fertile and productive. This is what a practice of subsistence agricultural system that exists in the tribal society. According to census of 2011 the scheduled tribe population in India is 104,545,716 and Maharashtra that is 10,510,213.

# Sustainability education through School-Community partnerships for the overall wellness of students: A study in Visakhapatnam City, Andhra Pradesh

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**Abstract:**

**E**ducation is a key component and the main tool in achieving Sustainable Development. The relationship between Education and Sustainable Development is not that easy to understand. It is complex in nature. Any nation's capacity to achieve Sustainable Development Goals and targets will depend on the status and level of education. The United Nations'(UN) decade of 'Education for Sustainable Development' (UNDESD) (2005-2014) significantly highlighted the vital role of

education that can and must play in the universal journey towards sustainable development across the globe and saving our planet. In September 2015, the UN formally adopted the 17 sustainable development goals (SDGs) as an outcome of a major global consultative process. The purpose of the study was to explore the extent to which schools involve Communities to support schools and how that partnership enhances school Students' academic performance in Visakhapatnam city In the process of students' performance development, a number of stakeholders play a key role. Community partnership and parent support are most important in the overall performance of students in the society and their success. Students must have access to a range of support and opportunities to enhance their learning and progress, offering collaborative services to improve student mental health, physical health and overall wellness. In this area a number of studies have proven this idea. In this study, the main objective of the author is to study the importance of School-Community partnership in Student overall wellness observed in Visakhapatnam city, Andhra Pradesh with 120 student samples (both Male and female) from 20 schools and also observed Teachers interests in Community partnership in their schools to improvement of student performance. Both primary and secondary data were used in the study. Suitable Statistical tools were applied in the study. Major findings of the study are School-Community partnership which effectively worked in the students overall wellness and progress.

**Keywords:** School-Community partnership, Wellness, performance, Stakeholders, Progress.

## Sustainable Development Policies with Special Reference to India- A Biblomatric Analysis

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**Abstract:**

"**W**e don't inherit the Earth from our ancestors; we adopt it from our children" Lakota. This exploration paper is a methodical review of sustainable development enterprise in India. In this methodical review, forty papers related with sustainable development in India ( 2015- 2022) had been reviewed from the source of multiple sources. This study set up that there are only many literature regarding sustainable development enterprise in India and numerous of the SDG's were unexplored by the experimenters. This research is concluded by identifying the SDGs of gender equality, reduction in inequality, peace and justice, and responsible consumption and production as the most promising niches for future research in the area of sustainable development initiatives in India.

**Keywords**: Sustainability, Sustainable Development, SDG, Sustainable Development Goals

# The Role of Education in the Sustainable Development Empowering the Society for Sustainability Natural Sciences and Environmental Awareness towards Sustainable Development

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**Abstract:**

**S**ustainable development in each and every field is need of the hour. Research and innovation in education for sustainable development is very emerging and important part of education system. When we think of SD, education is an important area which can pave the way to achieve the desired goal of sustainable development. Therefore education and research and innovation in this area to achieve defined goal of sustainable development is inevitable and can play a great role. Education for Sustainable Development (ESD) has become an important issue in society. The united nations decade for education (DESD, 2005-2014) has encouraged innovative approaches in education in order to contribute to the societal change towards sustainability through both the formal education, non-forma land informal learning settings . Furthermore, as learning does not take place in separate silos, the interconnection of different stake holders is also seen as a necessity in ESD. During the last decade an abundance of ESD initiatives have grown at all levels in society. Governments have implemented the topic in policy briefings and educators and researchers have developed models for curriculum innovation and the integration of sustainability competences. The educators should integrate the concept of ESD in their teaching. The "education for sustainable development is learning to think and work towards a liveable world, now and in the future, for ourselves and for others, here and elsewhere on the planet" . ESD is not only addition of sustainability as an additional subject to the curriculum, but rather enabling learners to contribute to sustainable societies. According To Ban Ki-Moon, former United Nations Secretary-General, "Education is a fundamental right and the basis for progress in every country.

# A study on the Impact of Environmental changes on Agricultural Sector in India- Recent Issues and Challenges

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**Abstract**

**T**he present paper concentrated on environmental changes and agricultural production is under threat due to environmental change in food insecure regions, especially in India and Asian countries, various extremes, drought, heat waves, erratic and intense rainfall patterns, storms, floods, and emerging insect pests have adversely affected the livelihood of the farmers. Globally environment is changing day by day and now it has become a challenge to living forms due to the very ugly fact that every nation is trying to develop without taking into consideration the

environmental impact/conditions of degradation and pollution of agricultural lands, people are using plastic bags, which are environmentally dangerous products, for their daily needs mainly for shopping purposes as a result of which, the environment and agricultural lands are thereby being polluted. However, both the business sector and the individual consumers have important roles to play in reducing the environmental and agricultural land pollutions, while the business sector has strictly reduced its environmental and agricultural land pollution, such as, waste water and solid waste discharges and energy use, consumers have increased environmental and agricultural land pollution. However, the negative environmental impacts and agricultural land pollution have raised the concern of the global community and the caring media around the world.

**Keyword**s: environmental changes, problems, impact on agriculture sector production, issues and challenges.

# "Impact of Industrial Pollution on Agriculture Productivity and Human Health With Respect To Ghugus City"

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**Abstract:**

**T**his research paper aims to explore the relationship between industrial pollution and Agriculture Productivity. Industrial pollution is the significant challenges that threaten the agricultural productivity. Industrial pollution has an effect on the agricultural area residing in Ghugus city. This is one of the most polluted city in Maharashtra according to air quality status of the Maharashtra year 2018-19 the annual average level of respirable suspended particulate particulate matter (RSPM) in Ghugus (2018-19) are 181 micrograms per cubic meter (mpcm). This city had been surrounding with Large Scale Industries such as WCL, Lloyds Metal, ACC Cement, Gupta Coal Washries. These industries release major toxic pollutants like Carbon dioxide, Carbon monoxide, Ozone, Nitrogen dioxide, Sulphur dioxide. These are very toxic substance to decrease fertility of soil. For the economic growth and development Industry are required but the one side of that the big question arise that how to control that pollution. This paper are based on the descriptive study, research method are primary data, statistical methods: quantitative analysis. This research will explore the impact of industrial pollution on Agricultural productivity. From this study will find the critical relation between industrial pollution and agricultural product and public awareness about the impact of industrial pollution on the agricultural productivity, quality of crops, soil fertility. This study highlights the importance of education in promoting practices and behaviors that can help to prevent agricultural product from industrial pollution.

**Keywords**: Industrial Pollution, Area of Industry and Agricultural, Agricultural product, Human Health

# Agriculture Resources Sustainability

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**Abstract:**

Concerns about sustainability in agricultural systems centre on the need to develop technologies and practices that do not have adverse effects on environmental goods and services, are accessible to and effective for farmers, and lead to improvements in food productivity. Despite great progress in agricultural productivity in the past half-century, with crop and livestock productivity strongly driven by increased use of fertilizers, irrigation water, agricultural machinery, pesticides and land, it would be over-optimistic to assume that these relationships will remain linear in the future. New approaches are needed that will integrate biological and ecological processes into food production, minimize the use of those non-renewable inputs that cause harm to the environment or to the health of farmers and consumers, make productive use of the knowledge and skills of farmers, so substituting human capital for costly external inputs, and make productive use of people's collective capacities to work together to solve common agricultural and natural resource problems, such as for pest, watershed, irrigation, forest and credit management. These principles help to build important capital assets for agricultural systems: natural; social; human; physical; and financial capital. Improving natural capital is a central aim, and dividends can come from making the best use of the genotypes of crops and animals and the ecological conditions under which they are grown or raised. Agricultural sustainability suggests a focus on both genotype improvements through the full range of modern biological approaches and improved understanding of the benefits of ecological and agronomic management, manipulation and redesign. The ecological management of agroecosystems that addresses energy flows, nutrient cycling, population-regulating mechanisms and system resilience can lead to the redesign of agriculture at a landscape scale. Sustainable agriculture outcomes can be positive for food productivity, reduced pesticide use and carbon balances. Significant challenges, however, remain to develop national and international policies to support the wider emergence of more sustainable forms of agricultural production across both industrialized and developing countries.

**Keywords:** agroecosystems, genotypes, environment, Despite, fertilizers, accessible, production, pesticide

# Corporate Social Responsibility in Agriculture in India

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**Abstract:**

India has an incomparable growth rate in agricultural production, which has helped to decrease the rate of hungriness. India is primarily an agricultural country and nearly 60% population's primary source of livelihood is based on agriculture. Agriculture is the backbone of rural development and it needs a lot of support to increase the farmer's income. corporate who have

invested in Agriculture have focused on the adoption of improved agriculture practices, natural resource conservation, reduction in the cost of cultivation and external inputs, etc. The government of India aims to double the income of farmers by 2023 through efficient use of resources it will reduce the cost of production and improve productivity.

**Keywords**: Agriculture, CSR

## Cultivating Green Campuses: Revolutionizing Higher Education With Eco-Innovations

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**Abstract:**

**T**his study delves deeply into the transformative influence of eco-friendly technology within the realms of higher education institutions, exploring the intricate fusion of cutting-edge technology and environmental conscientiousness. It vividly portrays the global landscape of universities embracing innovative approaches, emphasizing the seamless integration of sustainable practices, renewable energy solutions, and eco-efficient technologies. The narrative places a spotlight on the pivotal role played by green campus initiatives, intelligent building technologies, and responsible e-waste management strategies. Delving further, it intricately examines the complexities surrounding sustainable IT practices, emphasizing energy-efficient computing, virtualization, and the establishment of environmentally responsible data centers. Additionally, the study explores the paradigm shift in transportation, encompassing initiatives such as bike-sharing programs, electric vehicle charging stations, and a myriad of eco-friendly commuting alternatives. Through a thorough analysis of challenges and ingenious solutions, this paper offers a profound understanding of the eco-innovations reshaping the landscape of higher education. From the meticulous crafting of sustainable procurement policies to discerning future trends in green technology, this research expedition navigates a plethora of eco-conscious initiatives. It provides invaluable insights tailored for academic leaders, researchers, and policymakers deeply committed to sculpting a profoundly sustainable future within the higher education sector.

**Keywords:** Higher Education, Eco-Friendly Technology, Sustainability, Innovation, India.

## "A Study on Performance of Khadi and Village Industries Commission under Ari Division."

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**Abstract:**

**E**ntrepreneur is playing major role in the growth of economy and development of country. Developing country like India, the state and private entrepreneurship exist means the mixed economic system prevails. And the rest of the small sectors and business were for private sectors. Micro, Small and Medium entrepreneurs help in the growth of the economy by generating employment, which in turn leads to the elimination of big problems such as poverty,

unemployment, regional disparity in the country. For the economic and social development of the India micro, small and medium industries have been play very vital role. MSMEs mainly contribute to the overall growth in terms of generating employment, export and regional balance, poverty reduction, distribution of income, development of rural area, gross domestic product etc. Khadi and Village Industries come under the Agro and Rural Industry (ARI) Division. Khadi and Village Industries (KVI) division is a significant one in MSMEs. Khadi and Village Industries (KVI) boost employment, product exports, and rural area development. The Khadi and Village Industries Commission worked closely with MSMEs to improve these sectors. The Khadi and Village Industries (KVI) is a very prosperous MSMEs industry as a result. The Khadi and Village Industries on Employment, Production, and Sales are the focus of the study. This article's goal is to compute and compare performance variables of the Khadi and Village Industries Commission (KVIC) through MSME between the performance of the Khadi industry and the performance of the Village industry, as well as to look at how the two industries are related and how they function together. For data analysis annual growth rate and compound annual growth rate has been used.

**Keywords:** Employment generation, ARI Division, Production, Sales, KVIC.

## Environmental Issues in Kiran Desai's Hullabaloo in the Guava Orchard

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**Abstract:**

**H**uman beings are totally dependent on nature for everything. As literature is the reflection of life, the literary writers reflect man and his life in the background of nature where the writers provide description of nature, the characters love and attitude towards nature in their works. Environmental study in literature is known as Eco critical study of the novel. It is need of time to make people aware about the environment; literature is the prime source to convey this thought among people. It is a social responsibility carried out by the literary phenomenon. Ecocriticism is the recent branch of the literary criticism and theory which deals with the relationship between the environment and literature. It is the demonstration of the ecology and natural objects. The literature has become a mode of expression about environment and its importance in human life and universe. Due to the Eco imbalance and the environmental pollution, the whole world is under the curse of global warming. The healthy well-balanced environment/atmosphere is the need of time. The present paper seeks to analysis the Kiran Desai"s novel Hullabaloo in the Guava Orchard from the environmental point of view i.e. eco critical study of novel. The novel deals with the importance of nature and natural disaster accrued by the human being.

**Keywords**: Eco-criticism, environment, guava orchard, globalization

# A Survey on Impact of Open Cast Coal Mines in Majari in Chandapur District

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**Abstract:**

**O**pencast coal mining creates more air pollution problem in respect of dust and the fines contain coal particles, benzene soluble matters etc. To maintain the energy demand, opencast mining has been growing at a phenomenon rate in India. There is no well defined method for assessing the impacts on air quality due to mining projects. Currently there is no effective management and controlled practices for pollution prevention and control, but authorities have started to pay attention in this regard. Pollution control has become the primary concern of the environment today. The objective of this paper is to explore the impact of environmental pollution on the environment and society. To Study the various problems faced by people residing in nearby areas.

**Keywords:** - Pollution, Social Issues, Respiratory problems Eyes Problems.

# "A Comprehensive Analysis of Prime Minister's Schemes for Water Quality and Health Improvement"

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**Abstract:**

**T**his research paper conducts a comprehensive analysis of the Prime Minister's schemes aimed at improving water quality and enhancing public health in India. Focusing on initiatives such as Swachh Bharat Abhiyan, Jal Jeevan Mission, and Ayushman Bharat, the study examines their effectiveness and impact. By combining qualitative and quantitative data, the research assesses their contributions to reducing waterborne diseases, enhancing sanitation, and increasing healthcare accessibility. The paper also addresses the socio-economic implications of these schemes, challenges in their implementation, and offers recommendations for policy enhancements. This analysis serves to provide valuable insights into these transformative schemes and their potential to advance water quality and healthcare in India.

**Keywords:** Prime Minister's Schemes, Water Quality Improvement, Health Improvement, Swachh Bharat Abhiyan, Jal Jeevan Mission, Ayushman Bharat

# Sustainable Development through Environmental Resource Management Movements in Maharashtra.

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**Abstract:**

Sustainable development is very important and essential element for every country's development in modern time. Economic and sustainable development helps to rise or increase per capita income of population. Thus development passes through different ways such as heavy construction, minerals, industrialization, high level activities, exploitation, consumption of natural resources services, and other things. Hence every individual or human group wanted to think about personal development and try to receive more assets and wealth to achieve more facilities for better future stability. So, this type of progressive functions occurs in developing countries for sustainable development. Because of this, many environmental problems has been occurred such as water pollution, air pollution, noise pollution, soil erosion, solid waste, soil pollution, destroy of ecosystems, land acquire, deforestation, reducing agriculture land, loss of biodiversity, human rights, food problem, health problems and many more. Moreover, this type of problems comes under dimensions of sustainable development. So, in Maharashtra many developmental projects and processes are going on, this creates many problems due to project development and various processes which impact the human life and make them suffering from various problems. For human rights and for many affected people various NGO and many social workers are fighting against the public or private authorities and start the movements of environmental management. Therefore, Environmental Resource Management Movements can be explain or define as a political and social management movements which is mainly concern with the protection and conservation of environment with better future improvement of environmental resources through sustainable development and advanced management of natural resources with protection of human rights, health and ecology.

**Keywords:** Sustainable Development, Environmental Resource Management, Human Right, Ecology, Movements, etc.

# Contribution of Welfare Schemes of Msrtc to Retain Human Capital

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**Abstract:**

**H**uaman factor of the organization is the most important part of any kind of organization. Human capital is getting very much importance in this knowledge era. The share of intangibles as a proportion of the total assets is also showing tremendous increase in the recent years. To run the organisation smoothly towards the getting the objective of the firm it is necessary that organisation pay attention towards the employee specially in service sector and also for government and non- government sector. This is focused on the importance and implementation of various welfare schemes of the MSRTC retains human capital in corporation.

**Keywords**- MSRTC employee, Welfare Schemes and Human Capital.

# Sustainable Development and Education

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**Abstract:**

**T**he education and sustainable development is key factor for surviving the globe and it's Environment, surrounding, resources and treasures for futures. Development in kind may be futile or for limited time but Sustainable development remains for the decades and it is required also for next generation and maintaining the environment clean. Today is survival competition means race in economic , technology ,trades , business, invention and health worldwide every country want to be a superior than others and in this way they forget to maintain proper environment of globe they extract and utilize the natural resources and environment extravagantly this is the main cause of emerging the importance of education for sustainable development , it should be spread communicate in the society the importance of environment and sustainable development and education (SDE) is the best weapon for it.

**Keyword:** SDE- sustainable development and education

# Environmental Awareness's Multiple Impacts on Business Sustainability

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**Abstract:**

This study explores the complex relationship between environmental consciousness and company sustainability. It thoroughly examines the range of ways in which environmental awareness affects business practices and results. The study looks at how various factors, such as a smaller environmental footprint, compliance, and risk mitigation, consumer demand and brand reputation, innovation and competitive advantage, long-term viability, relationships with suppliers and vendors, employee productivity and engagement, investor relations, and regulatory incentives and benefits, collectively shape the landscape of sustainable business practices. The article aims to provide a comprehensive knowledge of the crucial role that environmental consciousness plays in developing sustainability, resilience, and success in the corporate sector by closely examining these interwoven aspects.

**Keywords**: Business, Sustainability, Environment.

# Sustainable Development through Sustainable Industrial Vision- With Special Reference to Ril (Reliance Industries Ltd.) In India

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**Abstract:**

**S**ustainability is a social goal for individuals to co-exist on the Earth including economic, social, and environmental dimensions. Sustainable development for businesses is a form of protection, allowing them to overcome adversity, become more stable, and maintain societal values. The SDGs are an ambitious plan of action for people, planet and prosperity. They are universal, applying to all nations and people, seeking to tackle inequality and leave nobody behind. Some companies in greentech are figuring out how to save and protect our environment. The work of sustainability-focused tech teams is quite literally shaping our future for the better. Renewable energy makes up around 29 percent of global electrical consumption, and it's expected to represent over 90 percent of global electricity growth between 2022 and 2027 as more people learn about the benefits of solar, wind and hydropower. This research paper is based on the secondary data sourced from books, research papers, journals, magazines, articles and published reports. This study summarises Green and future initiatives taken by Central Govt. and different industries specially RIL for sustainable development. The objective of the study is to find out the responsibility/role of Govt. in India for industrial sustainable development and to study the vision of Reliance Industries

Ltd. in India to maintain sustainable development. The study clearly states that in its 2015 Paris Climate Agreement commitments, India had pledged to reduce its intensity of GDP emissions by 33-35 percent of 2005 levels by 2030. At the 2009 Copenhagen climate summit, it had promised to lower emissions by 20 to 25 percent by 2020. On the 75th Independence Day, Hon'ble Prime Minister Narendra Modi announced the National Hydrogen Mission with an aim of making India a hub for the production and export of green hydrogen. India is at a crucial juncture in terms of its energy landscape and green hydrogen has a critical role to play to make the nation self-reliant and energy-independent. Reliance Industries Limited (RIL), one of India's largest conglomerates, has been committed to creating sustainable value for all its stakeholders. The company has been consistently working towards achieving its environmental, social , and governance (ESG) goals. It was also discovered that Reliance endeavours for excellence in environmental management and strives towards sustainable business development. Reliance continues to be committed to develop and implement Environmental Management System (EMS) throughout the Group to measure, control and reduce environmental impact. RIL is fully compliant with various environmental protection and health and safety laws and regulations.

**Keywords:** Sustainable Development, Industrial Sustainable Development, Industrial Manufacturing, Green Initiatives

## 'Quest for Survival 'Sustainability across curriculum

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**Abstract:**

**M**odern age is an age of self-centered attitude. Everyone is busy in self development and achieving personal goals. Individuals, communities, nations are not exception to it. In last few decades industrial development has reached to the peak but we are losing environmental balance. Our generation will certainly enjoy all the fruits of development, but do we really care for our next generations ? If we will use all the resources and finish everything, our next generations will get depression, anxiety and futility of life. If we wish to protect the future of next generations, sustainability approach should be developed. It should be nurtured from childhood. There is a need of proper education and training. We should really include it in the curriculum. This paper is an effort to co-relate sustainability and curriculum. Sustainability across curriculum is a quest for survival.

**Keywords** – Sustainability, Curriculum, development, education

## Impact of Pollution and Environment on Industry: A critical Study

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**Abstract:**

**I**ndustrial pollution it is considered an important factor of the environment. "It shows the results in environmental degradation human health. For Example, Industry such as Textile, cement, glass, plastic, sugar, petroleum are major polluting industries in India. No attention is paid

to this issue of industrial pollution. There is no systematic approach used by many industrial sectors for proper disposal and drainage of their harmful for society. The industrial sector should be held accountable for their responsibilities towards proper management of waste, as it contributes to more 54% to 60% of the environmental pollution from Industries. Currently there is no effective management and controlled practices for pollution prevention and control in India, but authorities have started to pay attention that particular industries. Pollution control has become the primary concern of the environment today. The objective of this paper is to explore the impact of Industrial pollution on the environment". To study the develop an understanding of environmental degradation, To Study discuss the various types of influents impact the environment. Its recommendations and suggestion for alternative measures that can be helpful for controlling Industrial pollution and Environment.

**Keywords**: Industries, Pollution, Environment, Human health

# "Women Health Matters"- Prediction of Breast Cancer Using Machine Learning Algorithm- A Review

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**Abstract:**

In recent years, Breast cancer is the most frequently diagnosed cancer in women and it has ranked second among causes for cancer related death in women. Also with rapid population growth in Indian Context in recent times, early detection of disease has become a crucial problem. Now a day's use there exists huge utilization of machine learning algorithms in healthcare industry, especially in the research areas where the cost incurred for data collection is very high. In medical field a computer aided disease detection system assists to medical practitioners in disease diagnosis and offers reliable service and rapid response as well as decreases the risk of death. Along with the medical technology and information technology, various methods have been developed to detect the presence of breast cancer which includes the machine learning techniques.The purpose of this study is to review the relevant machine learning algorithms and its applications in healthcare units especially for breast cancer dataset. This paper mainly focuses on various machine learning techniques used in data mining for prediction of breast cancer. This paper recommends for future research in various applications of machine learning in health care units especially for breast cancer patients. The literature has shown that the past and ongoing research has a huge suggestion in improving the clinical outcome in breast cancer.

**Keywords**— Breast Cancer, Machine Learning Algorithm, Logistic Regression, Support Vector Machine, Naïve Bayes' classifier.

# Integrating Geospatial Technology and Analytic Hierarchy Process for Landslide Hazard Zonation in Dakshina Kannada

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**Abstract:**

In many regions of the world, landslides are a common natural hazard and a significant threat to humans and the environment, resulting in massive losses of life and property. Therefore, protecting life and property from landslide disasters is essential for establishing a secure society. Zoning and evaluation are necessary to manage and mitigate the landslide hazard properly. Numerous approaches, tools, and techniques have been developed to study and evaluate landslide hazards. A combination of environmental factors causes the landslide. Consequently, Multicriteria Decision Analysis (MCDA) can assist in integrating multiple factors that trigger a landslide using Geospatial Technology to produce a spatial understanding of the hazard. This study aims to map the landslide hazard zonation in the Dakshina Kannada district of Karnataka, which is typical and highly prone to slope failures. The report shows up to 65% of the study region is classified as high-risk. The methodology and findings of this study will aid the government and planners in developing more effective mitigation strategies for landslide-prone zones.

**Keywords**: Landslide, Ahp, Weightage Overlay Analysis, Dakshina Kannada, Gis

# Growth of Population in Nandurbar District (M.S.)

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**Abstract:**

Geographical study of population growth is of vital importance for understanding its dynamic as well as for planning at the local and regional level. Population growth refers to the growth of the human population in a particular area during a specific period. The growth may be positive or negative population growth may be due to natural increase. Rates of natural increase or decrease that rates computed on the balance of births and deaths give some measure of the overall gain or loss in a population through the addition of births and the subtraction of deaths. Main factor responsible for this tremendous rise in the last 50-year fall in death rate due to improvement in medical facilities. During the period 30 years between 1961 to 1991.Population has increased by 40 cores. This increase was 10 times more than the increase in the previous 30 years, from 1901 to 1931.

**Keywords**: - Decadal Population, Urban Population, Rural Population.

# Concept of Social Vulnerability to Climatic Events in the Context of West Bengal Sundarban

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**Abstract:**

The concept of Social Vulnerability is very complex. It can be perceived from different perspectives as it has been emerged through different overlapping dimensions like, physical, ecological, social, demographic, economic, emotional etc. It covers a broad spectrum rather than just concentrating on social issues like gender, age, education and income etc. It must include the factors that create weakness in responding to and recovering from the effects of extreme climatic events. The frequent attack of multiple hazard arising out of extreme climatic events and associated phenomena generates risk as well as vulnerability worldwide. In case of Sundarban of West Bengal, climatic events like cyclone, storm, flood, associated with tidal surge, periodic waterlogging, severe bank erosion, embankment failure, soil salinity pose serious threat to livelihood dimensions of the people living there. Thus, the concept of Social Vulnerability becomes very relevant in a fragile area like West Bengal Sundarban. Holistic approach should be adopted to develop Social Vulnerability Assessment not only to reduce risk but to increase adaptive capacity as well as resilience. Part of three blocks (Namkhana, Sagar, Pathar Pratima) of West Bengal Sundarban have been taken as the study area to identify the development of social vulnerabilities at household level.

**Keywords:** Social Vulnerability, climatic events, livelihood.

# ‘‘Treatment And Disposal Of Most Hazardous Bromine From Solid Waste In Udaipur Using Remote Sensing And G.I.S. Techniques”

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**Abstract:**

Udaipur, the city of lakes and tourist city currently faces the challenges of Hazardous Solid Waste Management(S.W.M.). The environmental health of a city depends on the Hazardous S.W.M.This problem considered as a low priority area by Government and U.M.C.This paper studies focuses on the present scenario of public and disposal units of government and semi government, private units's awareness towards this problem and their Hazardous Solid Waste related management practices, Status and impacts of improper disposal and management of Hazardous solid waste from various industries and solid waste products and residues of many forms on dumpsites and different recycle industries under R.I.I.C.O. that directly affects our environment through many ways like pollution point of view and role playing in climatic change through field survey based observation Bromine data and 3 D Bar graph presentation shows

comparison of quantity of that waste yearwise simultaneously it suggests better management strategies and plannings for sustainable development approach.

**Keywords**:Hazardous,SolidWaste,Bromine,Treatment,Disposal,PhScale,Neutralisation,Extraction, Sludge,Sea Brine.

# Industrial Waste Water Treatment

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**Abstract:**

**T**hese Days Many Water Assets Are Contaminated By Anthropogenic Sources Including Family And Rural Waste And Modern Cycles. Public Worry Over The Natural Effect Of Wastewater Contamination Has Expanded. A Few Customary Wastewater Treatment Strategies, For Example Substance Coagulation, Adsorption, Initiated Muck, Have Been Applied To Eliminate The Contamination, But There Are Still A Few Restrictions, Particularly That Of High Activity Costs. The Utilization Of Oxygen Consuming Waste Water Treatment As A Reductive Medium Is Getting Expanded Interest Because Of Its Low Activity And Support Costs. Moreover, It Is Not Difficult To-Acquire, With Great Viability And Capacity For Debasing Pollutants. This Paper Surveys The Utilization Of Waste Water Treatment Advancements To Eliminate Impurities From Wastewater, For Example, Halogenated Hydrocarbon Compounds, Weighty Metals, Colors, Pesticides, And Herbicides, Which Address The Principal Poisons In Wastewater. The Course Of Industrialization Is Unfavorably Affecting The Climate Around The World. Contamination Because Of Improper Administration Of Modern Wastewater Is One Of The Major Natural Issues Especially In India. With Expanding Quantities Of Limited Scope Businesses , Worry Towards The Steadily Expanding Volume Of The Profluent Produced Has Hugely Expanded. The Volume Of Gushing Produced By A Bunch Of Ssis On Occasion Outperforms The Volume Of Wastewater Created By A Solitary Enormous Industry. Additionally Because Of Absence Of Room, Specialized Labor, And Frequently Funds, Individual Ssi Can't Introduce And Work Hostage Wastewater Treatment Plant, Which Imperatives Their Capacity To Control Contamination. Fast Urbanization And Industrialization Have Inseparably Connected To Water Utilization And Wastewater Age. Mining Assets From Modern Wastewater Has Ended Up Being A Magnificent Wellspring Of Auxiliary Unrefined Substances I.E., Capable For Giving Monetary And Monetary Advantages, Spotless And Economical Tough Climate, And Accomplishing Manageable Improvement Objectives .

**Keywords:** Climate, Contamination, Waste, Water, Treatment

# Dye Photosensitizer-Based Modified Photo galvanic Cell for Solar Energy Conversion and Storage

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**Abstract:**

**A** solar cell directly turns solar energy into electricity. Photogalvanic cells are unusual among such solar cells since they are the only solar cells that can generate and store solar power at the same time. As a result, such inherent solar power storage capacity, coupled with the high efficiency of these cells, must be utilised in order to make solar cell technology a stable source of power in the future. To illustrate the unique property of photogalvanic cells, fabrication and experimentation are relatively straightforward. The power, short-circuit current, open-circuit potential, conversion efficiency, and power storage (in terms of half change time) for photogalvanic cells. We use dye as a photosensitize material, which is excited and then stabilised by miscilation production, which aids in energy storage.

**Keywords:** - Photo Power, Photocurrent, Photo Potential, Fill-Factor.

# Industrial Pollution and Environment

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**Abstract:**

Contamination whose source begins straightforwardly from industry is known as modern contamination. After the Modern Transformation, assembling and innovation made progresses, which brought about additional plants and more industry. These processing plants produced smoke very high. The impacts of the smoke, alongside the contamination that ventures caused to water and, surprisingly, the land underneath and around the production lines were ending up being self-evident. Modern contamination was likewise brought up as a central point in natural life eradication and at last, even an unnatural weather change. The worldwide climate, even regions that are not modern, have been affected. Cold and Antarctic ice tests have been displayed to have elevated degrees of poisons, exhibiting the significant stretches that contaminations can travel. Obviously ecological debasement was going on as an immediate consequence of modern contamination and something should have been finished. The Perfect Air Act in 1963 had the US government regulation shifting focus over to the Natural Assurance Organization to create and uphold guidelines that would safeguard residents from airborne poisons are known to make medical problems people. A few changes in later years have extended the Demonstration to address ozone consumption and corrosive downpour, among others. With its presentation in 1972, the Perfect Water Act (CWA) was set up to keep up with or reestablish the country's waters by forestalling contamination sources. With the reception of the Contamination Avoidance

Demonstration of 1990, the US zeroed in its strategy on diminishing or forestalling contamination at the source.

**Keywords:** Climate, Modern Area and Modern Contamination.

## Impact of Microplastics on Fish and in Human Health

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**Abstract:**

In recent years, plastic waste has become a universally significant environmental problem. Micro plastics (MPs) are regarded as a global issue due to their toxicity effects on fish and humans. Fish is a vital origin of human protein, which is necessary for body growth. Contamination of fish by MPs is a major hazard that requires special focus. After exposure to MPs alone or in combination with other pollutants, fish may experience a variety of health issues. MPs can cause tissue damage, oxidative stress, and changes in immune-related gene expression as well as antioxidant status in fish. After being exposed to MPs, fish suffer from neurotoxicity, growth retardation, and behavioral abnormalities. Fishery products are an important source of microplastics in the human diet. Once ingested, microplastics reach the gastrointestinal tract and can be absorbed causing oxidative stress, cytotoxicity, and translocation to other tissues. Furthermore, microplastics can release chemical substances (organic and inorganic) present in their matrix or previously absorbed from the environment and act as carriers of microorganisms. Additives present in microplastics such as polybrominated diphenyl ethers (PBDE), bisphenol A (BPA), nonylphenol (NP), octylphenol (OP), and potentially toxic elements can be harmful for humans. The consequences of MPs on human health are poorly understood. Due to the abundance of MPs in environment, exposure may occur via consumption, inhalation, and skin contact. The toxic effects of MPs in both fish and human are still unknown. This detailed review has the potential to add to existing knowledge about the ecotoxicity effects of MPs in both fish and humans, which will be useful for the forthcoming study.

**Keywords**: Microplastics, Fishery Products, Human Health, Environment Effect

## Freshwater Fish Diversity Database for Sustainable Development and Management of Fish Culture

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**Abstract:**

Present study deals with fresh water fish diversity data base for sustainable development and management of fish culture. there is no proper documentation on freshwater fish diversity data base. the freshwater fish diversity is on a decline mode because of irrational fishing practices, environmental aberrations like reduction in water volume, increased sedimentation, water abstraction, and water pollution. the present study focus on some features and impacts of deduction

of fish biodiversity. there is an urgent need for proper documentation leading to freshwater fish diversity data base system to save the freshwater fish diversity and to develop a sustainable fishery practice in the country. some important components of databases for development and management of fish culture documentation have been suggested by this study.

**Keywords**: fresh water, fish diversity, data base, sustainable development and management.

## Biosurfactants as Versatile Molecules for Sustainable Development

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**Abstract:**

**S**urfactants can be derived from either (i) petroleum-based sources or (ii) microbiological or botanical sources. Petroleum-based surfactants are an obvious consequence of petroleum products, which produce petroleum pollution and other major environmental difficulties that result in a variety of ecological harms. Newer ways for producing ecologically friendly surfactant molecules have been developed. Biosurfactants are amphipathic substances produced by microorganisms (bacteria, yeasts, and filamentous fungi) with surface-active (biotensoactive), emulsifying (bioemulsifier), antibacterial, and anticancer activities. These are a type of amphiphilic molecules (those with both hydrophobic and hydrophilic domains) that are essential components of practically every modern industrial activity, including agriculture, medicine, personal care, food, and petroleum. They have numerous advantages over chemical surfactants, including high biodegradability, lower toxicity, ease of raw material availability, and ease of application. These flexible molecules are promising for the future because of their ecologically favorable features. Because of the features and advantages of biological surfactants over synthetic surfactants, there are currently many more studies being conducted on their manufacturing. We discussed the fundamental ideas behind surfactants, the microbial and enzymatic synthesis of biosurfactants, conventional and nonconventional raw materials, applications in a variety of industrial sectors, and how the implementation and consolidation of a biosurfactants-based platform improves the overall sustainability of products and processes-something that is highly desirable now and in the near future.

**Keywords:** Biosurfactants, Surfactants, Microbial Biosurfactants

## Effect of Salmonella Infection on Some Blood Parameters at Different Age Group Patients

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**Abstract:**

**S**almonella enterica typhi is a gram-negative bacterium that is responsible for typhoid fever and has been a burden on developing nations for generations. Despite significant efforts in

research and medical advancements, typhoid fever is still a major worldwide public health concern. The confirmed samples were processed for hemogram on fully automatic cell counter AGD (HT30). The PPV and NPV values were calculated after screening Widal test. It was observed that there were higher number of patients who showed positive Widal test of non-typhoidal infections.

**Keywords -** Salmonella, Gram – Negative Bacteria, Typhoid, Widal Test.

## Artificial Intelligence and Sustainable Development

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**Abstract:**

**C**ountries worldwide are diligently striving to preserve our planet. It doesn't take much more to convince people that there is a serious threat to the environment than the fact that our natural resources are contaminated, glaciers are melting, forests are being cut down, and wildlife is dying. It is quite evident that the efforts we have made up to this point have not been sufficient to heal our sick planet. To put it succinctly, when we treat the environment with disrespect, we are preparing ourselves for disastrous outcomes. The efforts undertaken by governments and private companies worldwide demonstrate the substantial impact of artificial intelligence (AI) in achieving various sustainable development goals, including but not limited to addressing hunger, poverty, sustainable energy, gender equality, and biodiversity conservation. India is actively embracing AI for environmental conservation. Several government and private organization initiatives are yielding favorable outcomes. An evaluation of the influence of artificial intelligence (AI) on the attainment of the Sustainable Development Goals is necessary due to its growing significance and widespread application across several industries. This chapter focuses on the role of Artificial Intelligence (AI) in Sustainable Development. AI's rapid advancement necessitates the provision of essential regulatory understanding and supervision for AI-driven technologies to facilitate sustainable progress.

**Keywords:** Artificial Intelligence (AI), Sustainable Development, Climate Change, Sustainable Development Goals (Sdgs).

## Role of Peer Mentoring on Faculty's Job Motivation: A Study from the Perspective of Royal University of Bhutan (RUB) Faculties.

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**Abstract:**

**P**eer mentoring has the potential to positively impact faculty job motivation by addressing various factors that influence motivation. With the changing work environment in RUB colleges it is important that faculties continuously update themselves with latest development in their field. This updating is possible only through the mentoring process. The current research aims to provide an in-depth analysis of the mentoring and its role on faculty's job motivation in the context of RUB. The research employed quantitative research design with descriptive approach.

Findings suggest that mentoring plays a significant role in employee motivation and behavior, contributing to self-development, enhancing managerial competencies, cultivating leadership qualities, and satisfying affiliation needs. The findings underscore the importance of informal mentoring programs in organizations as a means to promote employee growth, engagement, and overall success.

**Keywords**: Employee, Faculty, Job motivation, Peer Mentoring, Royal University of Bhutan

## Theoretical Investigation of the Idea of Reaching Net Zero By 2050

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**Abstract:**

The study is based on secondary theoretical material found in many websites and academic papers on the internet. According to the analysis, it is feasible to reach net zero by 2050, which would be highly advantageous for the entire world community. However, to guarantee a fair and equitable transition for all nations and communities, a sizable investment, political will, and public support are all needed. We can ensure that the future is sustainable, resilient, and equitable for everybody by concentrating on the development of low-carbon solutions and developing political will and public support.

**Keywords**: Net Zero, Renewable Energy Sources, Paris Agreement, Carbon Neutrality, Policy Implementation, 2050 Climate Goals.

## Literature and Environment

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**Abstract:**

The climate is the assortment of the financial, natural or synthetic factors that make up the environmental elements of a human. It contains both living and non-living creatures that exist in concurrence with each other. In addressing our current circumstance, writing assumes a basic part and is the impression of cutting edge society. ' Eco-analysis' is the term for the relationship among writing and the climate. Essentially, it is the investigation of portrayals of life and the association among writing as well as the climate. There is likewise areas of strength for an among writing and nature that most writers have magnificently depicted. In the present situation, environmentalism, eco-analysis and biology have become important ideas. Nature appears to have been a genuine worry in a few writings and globalization has been the predominant power in ecological obliteration. Since old times, Indian writing and artistic expressions have depicted the models and collaborations among human and business likewise correspondence viewpoints have been utilized to offer different viewpoints and feelings. The early Indian writing examines exhaustively that it is so important to safeguard and utilize correspondence depicting it as the dharma i.e the strict obligation of the man. The motivation behind this paper is to concentrate on the stylish and imaginative connection shared by the effect of business correspondence with the

Indian writing.

**Keywords:** Bibliometrics, Scientometrics, Indian Distributions, Environmental Change Exploration

## Change Detection of Land Use and Land Cover through Remote Sensing Techniques: A Case Study in Kakching District, Manipur, India.

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**Abstract:**

The issues and problems related to the environment that humanity are facing today can be contributed to the changes brought down to the landscapes around the world. The various human activities and process of rapid urbanisation has altered the landscape of an area or a region. It means that human beings have become the dominant agent for changing the landscape. The ever-increasing population leading to subsequent demand for natural resources has resulted into transformation of land features and it adversely affects the existing environment leading to a factor of climate change. Remote sensing and Geographic Information System (GIS) is an essential and fundamental tool which have been used to study the dynamics of land use and land cover of a region or an area of interest (AOI). The changes in Land Use Land Cover (LULC) is directly linked to the sustainability of the ecosystem. The present study aims to analyse the land use changes and patterns of Kakching District in Manipur, India. Using the multi-temporal satellite images of IRS LISS-III and LISS-IV having spatial resolution of 23.5 m and 5.8 m respectively and with the using ARC GIS-10.4, ERDAS IMAGINE-2015 and Google-Earth Pro software, the changing patterns in increment and reduction of the areas of Kakching District are classified and analysed. The finding shows some significant changes in the land use pattern and its climate change phenomena.

**Keywords:** Landscape, GIS, LULC, Spatial Resolution, Kakching.

## To Study of Mental Health and Environmental Psychology

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**Abstract:**

Objective:Environmental psychology as a science could be useful in understanding the dissociation between the man and women the environment. The aim of this study was to compare mental health, who work in rural and urban aria environments with different designs.

**Keywords**: Environmental Psychology, Mental Health, rural and urban

# The Future of Agriculture in India

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**Abstract:**

Agriculture in India is still providing a livelihood to the majority of the country's population and is the backbone of India's self-sufficiency in food grains. However, the last two decades have seen India go through a severe farming crisis and record lower-than-expected agricultural growth. Considering this fact, the present paper attempts to investigate the current scenario of Indian agriculture, the constraints of agricultural development and it also anticipate the decisive trends in the agricultural sector. The paper, based on both primary information and secondary data, reveals that, though efforts are being taken to improve the agricultural conditions in India, there is an urgent need to accept a holistic approach to the development of this sector.

**Keywords:** Future, India, Agriculture, Sustainable, Technology.

# Analyze Inclusion and Dignity in Gender Inequalities and Sustainable Development, A Sociological Thought.

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**Abstract:**

**G**ender inequalities persist as a significant societal challenge with far-reaching implications for sustainable development. This abstract delves into the intricate relationship between inclusion, dignity, and gender inequalities from a sociological perspective, emphasizing their profound impact on the sustainable development agenda. It argues that the attainment of gender equality and the promotion of inclusion and dignity for all genders are not only moral imperatives but also essential prerequisites for achieving sustainable development goals. Drawing on sociological theories and empirical evidence, this analysis examines the multifaceted nature of gender inequalities and their consequences. It underscores that gender disparities extend beyond income and access to resources, affecting education, healthcare, political participation, and cultural norms. Such inequalities have a pervasive and enduring impact on individuals and communities, impeding social progress. Furthermore, the concept of inclusion is explored within the context of

gender inequalities. It highlights the importance of policies and initiatives that foster inclusive societies by addressing the unique needs and challenges faced by diverse gender identities. Inclusion goes beyond mere participation; it encompasses the recognition of different gender experiences and the dismantling of discriminatory structures. Dignity emerges as a central theme in this analysis, as it is intrinsically linked to both gender inequalities and sustainable development. The denial of dignity is not solely an outcome of gender discrimination but also a perpetuator of inequality. Individuals who experience a lack of dignity are less likely to engage actively in the development process, thereby hindering progress. Dignity is closely tied to human rights, and ensuring dignity for all genders is foundational to social justice and sustainable development.

**Keywords**: Gender Inequalities, Sustainable Development, Sociological Perspective, Inclusion, Dignity, Gender Disparities, Empirical Evidence, Social Progress

## Vertical Flow System: A Remediation over Acid Mine Drainage

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**Abstract:**

The very existence of acid mine drainage (AMD) in and around coalfields has been evident by multiple studies. The origin and occurrence of the AMD has been attributed to the enhanced interactions among the atmospheric agents and the concealed rock strata; specifically hosting sulfide minerals like of Pyrite. The AMD generation not only deteriorate the quality of water by lowering the pH but is also responsible for the enhanced dissolutions of the metal contaminants; specifically acid dissolving ones. The vertical flow system (VFS) is a budget friendly setup with eco-friendly approach to remediate the AMD. Multiple studies have been conducted to understand the efficiency of the VFS and have proved worth. The current article briefly elaborates the observation done by the worker C. Zipper, J. Skousen and C. Jage through a review done on the article published by them in 2014. The article systematically explains the concept of AMD in concern to its origin and occurrence. Accordingly, the article deals with the various methods employable for the mitigating the probable issues associated with AMD.

**Keywords:** Coalfields, Groundwater Contaminations, Heavy Metal, Acid Mine Drainage, Vertical Flow System, Anoxic Limestone Drains, Open Limestone Channels

## Crime Prevention through Sport and Games

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**Abstract:**

Crime prevention is not the primary objective of sport and physical activity, but it might be an extremely positive byproduct. This paper examines a variety of sporting activities that appear to have had a beneficial effect in helping young people steer away from trouble. It examines wildeness programs, programs in which youth participate and learn skills, and programs in which the sense of belonging reduces vandalism and develops other pro-social behaviours. Particular interest is sports carnivals in Aboriginal communities.When the carnivals are held, they act as

catalysts for social and traditional cohesion. Harmful behaviours such as petrol sniffing, heavy drinking, and violence are prohibited for the duration of the carnival, and the prohibitions hold in the short term.

## To study the effects of the environment on athletes' performance in sports.

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**Abstract:**

The science behind athletic performance has progressed significantly with the advancement of technology and research of sport. The current review examines further the effects of several external factors on athletic performance. Factors were deemed external if they involved either variables out of the athlete's control or an athlete's conscious decision. Addressing playing environment, voluntary consumption of alcohol, sleep, a variety of emotions, and team environment contributes to a better understanding of the wide variety of factors that may influence athletic performance. The conclusions reveal ways in which awareness of external factors may impact overall The effect of weather and environmental performances very importantant the impact of some specific environmental parameters over different sports using a particular impact index divided into five classes. This analysis clearly shows that most of the outdoor sport activities, and in particular endurance sports, are strongly influenced by the variation of meteorological parameters. In effect the evaluation of bio-climatological conditions and of thermal comfort in endurance sports, particularly in outdoor games, has a fundamental importance not only for a proper planning of the training program In effect the evaluation of bio-climatological conditions and of thermal comfort in endurance sports, particularly in road Kabaddi and Ball badminton , has a fundamental importance not only for a proper planning of the training program and the nutritional plan, but also for a better evaluation of the race strategy (Olds et al., 1995). Despite these observations, the influence of meteorological and environmental conditions is often disregarded in the outdoor sport performance assessment. Among the meteorological variables that strongly influence the sporting activity the most important are temperature, wind, precipitation, fog, atmospheric pressure and relative humidity. The usefulness of weather forecasts in performance sports management has been demon.

**Keywords**- Ball Badminton ball, clay court, Knee Cap, Temp.

## "Cardio respiratory Fitness between the Tribal and Non Tribal Boys a Comparative Study"

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**Abstract:**

Cardio respiratory fitness is related to an individual's ability to use the large muscles for dynamic, moderate-to-high intensity exercise. The health and wellness important because of its relations to cardio respiratory fitness. Keeping in view this concept this study was framed to

establish the relationship between cardio respiratory fitness level between tribal and non tribal Boys. The Boys of School were randomly selected as subjects and their age was between 13 and 19 years. The subjects were randomly assigned to two equal groups as Group- I (Tribal Boys) and Group II (Nontribal Boys). Cardio respiratory Fitness level of each group was measured by Cooper 12 minutes run & walk test. To determine the significance of difference of cardio respiratory fitness of tribal and nontribal Boys groups, "t" test was applied. The results of this study was concluded that tribal Boys have better cardio respiratory fitness level by comparing with non tribal Boys.

**Keywords**: Physical Fitness, Cardio respiratory Fitness

## Water Education for Sustainability

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**Abstract:**

**W**ater education is the process of providing knowledge, awareness, and understanding about water-related issues, including its importance, conservation, management, and sustainability. It aims to equip individuals, communities, and societies with the necessary information and skills to make informed decisions and take responsible actions regarding water resources. The review paper analyses the key concepts of water education in the context of school education and the various strategies for incorporation of water education in the school curriculum. In summary Water education can take various forms, including formal education in schools and universities, public awareness campaigns, community workshops, online resources, and interactive exhibitions. By fostering water literacy and promoting responsible water stewardship, water education plays a crucial role in achieving sustainable water management and ensuring the availability of clean and safe water for present and future generations.

**Keywords**: Water education, Sustainability, Water literacy, Water management

## Health Consciousness among Graduate Students with relation to Environment.

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**Abstract:**

**G**raduate students today are more health-conscious, with a greater focus on managing stress, physical fitness, and nutrition. This shift is driven by an awareness of the long-term benefits of a healthy lifestyle and the desire to excel academically while maintaining overall well-being.The concept of health consciousness, in the context of environmental awareness, has gained significant importance in recent years due to the growing concerns about environmental degradation and its potential impact on human health. This abstract provides an overview of a study conducted to investigate the level of health consciousness among graduate students and its connection to environmental concerns. The study employed a mixed-methods approach, including surveys and interviews, to collect data from a diverse sample of graduate students across various academic disciplines. The research aimed to explore the extent to which graduate students are aware of the

relationship between environmental factors and human health and whether this awareness influences their health-conscious behaviors.

**Keywords**: Health Consciousness, Graduate Students, Access To Nature

## Sustainable Society and Education.

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**Abstract:**

This paper fundamentally manages the reasonable advancement objectives (SDG), particularly the SDG 4 - 'quality schooling and long lasting open doors for all' and its experimental and hypothetical foundation too. The creators have attempted to audit the writing on 'training for economical turn of events' and 'supportability in schooling' to survey the definition and best acts of 'Manageable Training'. By embracing Real's 'triple main concern model' the creators have attempted to foster a reasonable model of supportable training for Indian school schooling system. The legitimacy of this model would be tried through a proposed pilot study and ESD approaches Schooling is a significant device for accomplishing supportability all over the planet. The main medium empowers individuals to comprehend work for and benefit from supportable turn of events. Maintainable improvement is an improvement that tends to the requirements of the present without compromising the capacities of impending ages to meet their particular necessities. The essential guideline behind maintainable improvement is a blend of financial, social and natural circumstances that are shared by us all. Schooling for supportability uses the whole school system to give understudies how they need to change our social orders to accomplish a manageable future. Maintainable advancement ought to likewise incorporate an affirmation and regard for the positive legacy and tradition of past ages. Instruction for Manageable Turn of events (ESD) is a powerful idea that incorporates another vision of training that looks to adjust human and monetary prosperity with social customs and regard for the world's normal assets.

**Keywords**: Improvement, Training, Schooling For Maintainable Turn Of Events (ESD), Individuals, Society, Climate, Age, Need, World.

## Green Energy for Emerging India: Potential, Policies and Challenges

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**Abstract:**

Today, India is on the verge of transitioning from conventional energy resources to

sustainable growth powered by green energy resources. Green energy will be the source of next phase of India's growth. The present paper attempts to understand the potential and challenges in the adaptation of green energy resources in the light of various policies framed by the Government of India in order to attain its NDC commitments. The study is based on secondary sources of data viz. publications and reports by international and national bodies. A few research papers were also referred to obtain the information. It is observed that India's attainment of Net Zero emissions depends on its successful harnessing of renewable energy resources; besides working towards improving fossil fuel efficiency, framing policies for utilisation of green energy, innovation in environment friendly technologies and bringing efficiency in the transportation of power supply. Towards this end, India has already formulated policies and undertaken a slew of measures such as the National Solar Mission, National Hydrogen Energy Mission, PM KUSUM etc. However, the challenges remain in terms of lack of research and development, land acquisition, inefficiencies in power distribution, the rapid growth of population, urbanization, industrialization, high dependence on fossil fuel based energy resources etc.

**Keywords**: Green Energy, India, Potentials, Policies, Challenges

## Solid Waste Management Is the Need of the Day

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**Abstract:**

**A**mong the problems of environmental pollution that have arisen due to increasing urbanization, the collection and disposal of solid waste has become a major cost and a very important problem in terms of environment. Solving this problem with public participation is the need of the hour. In this regard, the government has started a very welcome scheme called Sant Gadgebaba Urban Cleanliness Mission. Everyone should participate in it spontaneously. If this happens, this problem can become a source of income along with protecting the environment instead of a problem.

**Keywords**:- Solid Waste, Pollution, Population, Garbage, Cleanness

## The Impact of Technology on the Environment

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**Abstract:**

**T**echnology has been a driving force in shaping the modern world. From the industrial revolution to the digital age, it has transformed the way we live, work, and communicate. While technology has brought many benefits, it has also had a significant impact on the environment. This essay explores the multifaceted relationship between technology and the environment, focusing on both the positive and negative aspects of this interaction.

# “Literature and Social Responsibility”

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**Abstract:**

**H**uman being is a social animal and lives in society. People form society behaves in such a way that some set of rules gets established to main decorum in society. It is expected from everyone to follow the norms so as everyone gets benefitted. Literature is the mirror of society. It’s a body of written words. Literature may be classified according to the different variety of systems, including language, national origin, historical period, genre, and subject matter. . Social responsibility means that individuals and companies must act in the best interests of their environment and society as a whole.

**Keyfeatures**:- Human, Social, Literature, Environment, Society

# The Panorama of Agriculture and Peasant’s life in Literature

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**Abstract:**

**A**griculture and farmer have an intimate and unique relationship. Both depend on each other. They are known as the backbone of economy. India is an agricultural country. The history of Indian agriculture dates back to the civilization of Sindhu/ Indus valley. Almost one fourth of India is covered by agricultural land and most of the Indians depend on agriculture for their livelihood. Farmers are a very important element in the Indian social system. The farmer grows food by toiling day and night. A farmer works in the field. Therefore, economy works. Industries, livestock and human life depend on agriculture. Being the creator of the essentials of life, the farmer is called the Foster/Guardian (Poshinda) of the world. The panorama of Indian agriculture and peasant’s life has been delineated many writers in their literary writings. Rural life and agrarian culture are depicted prominently in rural literature. Some literary writers like V S Kandhekar G L Thokal, R V Dighe, S N Pendse, V Madgudkal, Anand Yadav, Sadanad Deshmukh, Shrikant Deshmukh, Babarao Musale and Vithal Wagh, Gurudev Rabindranath Tagore, Mulk Raj Anand, Sabitri Roy and Premchand etc., who realistically portray the plight of agricultural sector, farmers, peasants and folk-life in their literature seem to be originally connected with the soil. The seeds of rural literature and hardworking farmers appear for the first time in the writings of Mahatma Jyotiba Phule.

**Keywords:** Agriculture, industrialisation, socio-economic, guardian, peasant, rural/folk-life etc

# Cultivation and Utilization of 'Siri Grains' For Future Agriculture and Health Sustainability

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**Abstract:**

**F**ood grains other than rice, wheat and barley are generally called short grains.. They are usually round in shape and small in size. Crops like Navne, Same, Sajje, Haraka(Arka), Korale, Baragu, Ragi, Maize are short grains. These grains, which grow in all weather conditions, are rich in nutrients and fiber, and grow without harming the nature, are also called cereals. These are also known as cereals It is known that in the Neolithic civilizations of India, China and Korea, these grains were the main food, not rice and wheat. In later days, cereals spread all over the world. There are more than six thousand types of cereals in the world of different colors such as yellow, gray, white, red. According to archaeologists many breeds are still alive today.Cereals, which grow well in low rainfall areas, were the food of our ancestors. By consuming these they lived healthy. Gradually, as civilization spread, the use of cereals declined. People who were seduced by the new lifestyle considered them poor people's food; They were called "cereals" and cornered. It is the oldest food in the world. Millet, corn, sajje, navane, same, haraka, baragu, korale – these are some grains that can be named. It is called Kirudanya because its grains are narrow. Small grains are grains other than rice, wheat and maize. They are small in size and round in many colors. Each grain has its own taste, some are slightly sweet and some are bland.

**Keywords**: Navne, Same, Sajje, Haraka(Arka), Korale, Baragu, Ragi. Short Grains. Low Rainfall Areas

# A Socio-Economic Condition of Domestic Workers - With Special Reference to Kanniyakumari District of Nagercoil City

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**Abstract:**

**D**omestic workers are those who do household chores such as cleaning, cooking, washing clothes and laundry, taking care of children or elderly or sick family members, gardening, maintaining the house, driving for the family. Caring for domestic pets. A domestic worker may work on a full-time or part-time basis; Can be employed by a family or multiple employers; Be it living in the house of the employer or living in her own house in Kanyakumari district, a large army of domestic workers are overlooked, undervalued and denied their rights. The wage rate they receive is very low compared to their marginal productivity. They are very unorganized, vulnerable

and unaware of their own rights and privileges. Failure to provide the basic wage rate calls into question the implementation of the laws of the land. They keep the wheels of our economy turning with their labor, but have limited or no social security to act as a cushion in hard times. In this article the researcher has dealt with various aspects of socio-economic environment of domestic workers in Kanyakumari district through literature. Primary data includes sources that refer to both primary data and information various journals, books, doctoral thesis, working papers, reports, magazines, internet sites.

## Eco-Feminism in A. K. Ramanujan's Short Story 'A Flowering Tree'

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**Abstract:**

**T**oday not only scientists but also many literary artists focus on environmental related issues in their literary work of art. If we want sustainable development we have to go with nature. The greatest poet Willam Wordsworth says in his poem 'The Tables Turned', we have to turn the table and be a part of nature. Nature is beautiful but human intellect interferes and misshapes the beauteous things 'We murder to dissect' is an apt comment on this. In this context, ecocritical to theory tries to create awareness in the society about only natural sustainable development without changing any of these real factors. For all we know the most important approach within ecocriticism is that ecofeminism. Vandana shiva is the pioneer of the ecofeminism movement, she is an activist in the environmental movement and an ardent feminist writer. She said if you want sustainable development think about women and nature with very sensitively otherwise future of mankind is dark. Throughout our history we have seen nature and woman found similarities, both have been exploited. Nature is represented as feminine and women are often thought of as closer to nature than men. Her close association with nature shows her connectedness. The study of nature and women has become an essential part of various academic as well as social domains, as the name of ecofeminism. This paper focuses on ecofeminism theory to analyses the representation of the environmental consciousness in the story 'The Flowering Tree' is written by A. K. Ramanujan. It shows the interrelation of women and nature by presenting the story of flowering girl, Kumudha. She is young, beautiful girl but poor, who has the magic gift of being able to transform herself into flowering girl.

**Keywords:** - Ecofeminism, Sustainable Development, A. K. Ramanujan's A Flowering Tree.

## Wildlife Crimes in Karnataka: Environmental and Legal Perspectives

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**Abstract:**

**W**ildlife has been a part and parcel of our ecosystem and as enshrined under Art. 51A(g) of the Indian Constitution, it is the fundamental duty of all citizens of India to protect and improve the same. The selfish and dominant behaviours of human beings have made wildlife to become extinct. Every day various crimes are taking place against wildlife such as killing, poaching, taking out protected plants, illegal trade etc., and the same are committed contrary to national and international legislation. The superstitious beliefs and the urge to make more money have made

human beings kill wild animals and use their body parts for various purposes. Pangolin scales, deer horns, star tortoise, elephant tusks, skin, shells, etc., of different animals, are used illegally for different purposes. India is rich in its flora and fauna, around 5.3 per cent of the geographical area is covered with wildlife protected areas. The Karnataka State alone is covered with around 41,590.16 sq. km of forests area and reports several cases of wildlife crimes every year. In this paper, the presenter focuses on the crimes happening against wild animals in the State of Karnataka, impact on the environment and the efforts and measures taken by the government and forest officials along with various laws to control the wildlife crimes in the Karnataka State.

**Keywords:** Wildlife Crimes, Karnataka, Forests, Legislation, Environment, Protected area.

# "Environmental Consciousness Through Children Literature: An Attempt Towards A 'Green Reading'

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**Abstract:**

Climate changes have been threatening the human life and their environment globally. As we continue to experience these phenomenal changes, it is crucial to educate current and future generations of youth about the importance of biodiversity in our everyday lives. One of the most important thing that we can teach children is how to care for and protect our 'blue planet'. In addition to experiencing the natural world by physically being outdoors, another way is to allow children of all ages to experience nature is through literature (books). Reading about nature is a wonderful way to encourage children to love and respect the importance of the environment and provide them with the knowledge to live sustainable and environmentally friendly lives. Eco-criticism is the term for the association of literature and the environment and the way nature is represented in the text. It is the analysis of the depictions of life and the connection with literature and environment. Reading environmental literature is also called 'eco-literature' and it gives the reader the opportunity to think about the world around them in different ways. Moreover the growing awareness of climate change has accelerated the development of environmental writings in the form of novels for the young and the adult. Despite different genres of literary writings, eco-fiction too has kept up with the times. The range of literature includes environment and nature themes in magical realism, science fiction, fantasy, etc. Eco-criticism is a field that bridges the gap between literature and environment. One can also call it as 'nature writing' or 'environmental literature' or 'green reading'. And literature is thus well-known for reflecting environmental issues.

**Keywords:** Environmental Writings, Green reading, Children's Literature, Eco-criticism, Eco-literature, nature, Storytelling, Ecological landscape, Environmental issues. Cli-Fi,

# A Glance study of Changing Pattern of Cropping in Maharashtra

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**Abstract:**

**A**griculture has a vital place in Indian economy and is one of the main source of national income. About 56 per cent population is directly and indirectly engaged in agricultural. Land use pattern indicates how efficiently the land use resources available to the farmers were utilized. The land utilization pattern also indicates the area available for the cultivation, gross copped area and cropping intensity. The main aim of the present paper is to identify the changes of agricultural land use pattern in Maharashtra State during fifty year periods from 1960-61 to 2021-22.The present study is based on the secondary source of data. The district has been taken as a unit for analysis the pattern of cropping intensity in the study area. During the span of fifty years periods, the cropping pattern in Maharashtra is changed on large scale. During this period the area under cereals crops is decreased by 19.07 % and other hand during same period's area under cash crops (7.73 %) and oilseeds (6.1 %) is increased. It means area under traditional crops is replaced by commercial crops. Main cause for changing in cropping pattern is development of irrigation facilities therefore area under irrigation is increased by 9.6 % during same periods. When single crop is considered, it is found that area under jowar (17.13 %) is maximum decreased during study period and other hand area under soybeans increased (12.61 %) during same periods

**Keywords:** Cropping pattern, Environmental change, Food grain, Soil, Pesticide

# Green Synthesis of Antibacterial Flavanones by L-Glycine

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**Abstract: -**

**A**n efficient and one pot method for smooth conversion of substituted α-β-unsaturated carbonyl compounds into a range of flavanones have been synthesized in very good yield under solvent-free conditions by grinding α-β-unsaturated carbonyl compounds in the presence of L-Glycine as a catalyst and KOH . The short reaction time, clean reaction, and easy workup make this protocol green.

**Keywords: -** α-β-unsaturated carbonyl, KOH, green synthesis, flavanones , grinding etc

# Relationship between Environmental Sanitation and Human Health

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**Abstract:**

**M**an made activities on the environment results to degrade and make the environment untidy and unfit for human habitation. Environmental Sanitation and Human Health are interlinked. Recent interventional studies on environmental sanitation has highlighted the importance of prioritizing control strategies. Research related to the appropriate cost-effective intervention strategies and their implementation is a big challenge. Environmental health comprises those aspects of human health, including quality of life, that are determined by physical, biological, social, and psychosocial factors in the environment. It also refers to the theory and practice of assessing, correcting, controlling, and preventing those factors in the environment that can potentially affect adversely the health of present and future generations. Public health can be seen as a s-fate of well-being due to the influences and impacts of the physical environment and sanitation on man or indeed on a community. This paper presents a perspective discussion on environment, sanitation and public health.

**Keywords:** Environment, Sanitation, Public Health, Human Health and Human habitation.

# Physicochemical Evaluation of Ground water for Drinking Purpose

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**Abstract:**

**B**asic need of human being is water and it is natural resource. As most of the diseases are water born, so it is essential to know the suitability of water for drinking purpose by knowing it's physicochemical parameter. The present study is to assess physicochemical parameter of collected samples from different rural station of mahagaon tehesil district yavatmal. Physicochemical parameter such as pH, TDS(ppm), Total Hardness(as CaCO3 mg/L), Temperature(oC), Electrical Conductivity(uS/cm), Turbidity(NTU), Color, Odour were determined and it is found that most of the parameter are within desirable and permissible limit. Hence water is suitable for drinking and domestic purpose but some samples require purification processes.

**Keywords**: Physicochemical parameter, permissible limit, Water samples.

# Role Of Renewable Energy In Sustainable Development: A Critical Review

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**Abstract:**

Renewable energy plays a pivotal role in the pursuit of sustainable development, addressing the urgent need to balance economic growth with environmental conservation and social equity. This critical review paper examines the multifaceted role of renewable energy in promoting sustainability across various dimensions, including environmental, economic, and social aspects. It discusses the challenges and opportunities associated with the adoption of renewable energy technologies, emphasizing the importance of policy support and technological advancements. Ongoing technological innovation and advancements in renewable energy technologies, such as increased efficiency and affordability, facilitate their widespread adoption and enable them to meet the energy demands of a growing global population. The Challenges related to intermittency, energy storage, land use conflicts, and resistance from vested interests pose significant obstacles to the transition to renewable energy sources. The review also underscores the need for a balanced perspective that considers potential drawbacks and trade-offs in the pursuit of renewable energy solutions. By critically analyzing the literature, this paper offers insights into the complex relationship between renewable energy and sustainable development, providing a foundation for informed decision-making and further research in this crucial field.

**Keywords:** Renewable energy, sustainable development, social equity, technological innovation.

# Synthesis, Spectral, Morphology of New Copolymer and Their study as Ion Exchange Resin for Toxic Cationic Elements

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**Abstract:**

In the present study, we report the synthesis and cation exchange study of benzoic acid-guanidine-formaldehyde copolymer. The copolymer (BGF) have been synthesized by the condensation of benzoic acid, guanidine with formaldehyde in the presence of acid catalyst and using 1:1:2 molar proportions of the reacting monomers at 124 ±2°C. The copolymer composition has been determined on the basis of their elemental analysis and the number average molecular weight of this copolymer was determined by gel permeation chromatography. The newly synthesized copolymer was characterized by UV-visible, FTIR, 1H NMR, technique. The batch equilibrium method was used to investigate the ion-exchange characteristics of this resin for Cu 2+, Ni2+, Zn2+, Co2+, and Pb2+ ions throughout a pH range of 2.0 to 6.0 and in fluids of varying ionic strengths. In the following order, the resin polymer demonstrated a better choosiness for removing these ions Pb2+> Cu2+ > Ni2+. The quantity of metal ion in use up by resin rises as the pH of the medium rises, according to analysis ratio of distribution as a function of pH, this research could be used to treat industrial waste water.

**Keywords**: Copolymer, Ion-exchange, Condensation, FTIR, 1H NMR, SEM.

## Different Methods To Study Water Quality Of Industrial Area

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**Abstract:**

**T**he present study was carried out with a view to have an understanding about the pollution status of cement water particularly water quality in vicinity of industrial area. Evaluation of physio-chemical parameters using standard method and their comparison with standard value suggest that weather the parameters were within the permissible limit or not.

**Keywords:** Test tube, PH, COD, BOD, Cement.

## An Extensive Review on Withania Coagulans (Paneer Dodi)

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**Abstract:**

**T**his pioneering attempt aims to provide detailed information of Withania coagulans Dunal, also called Paneer dodi belongs to the family Solanaceae is a well-known plant in herbal medicinal systems for its great potential against various diseases. This plant particularly leaves, fruits, and roots are known to have biological as well as pharmacological activities including hypoglycaemic, hypolipidemic, free radical scavenging, cardiovascular, central nervous system depressant, anti-inflammatory, wound healing, antitumor, immune-suppressive, cytotoxic, antifungal, antibacterial, sedative, emetic, diuretic, antidiabetic, antimicrobial, antitumor and hepatoprotective properties. The present review article highlights the significance of species, botanical name, taxonomical classification, morphology, chemical constituents, biosynthesis of withanolides, phytochemistry, and pharmacological action. This extensive information will be of great value for future researchers.

**Keywords:** Withania coagulans, Withanolides, Phytochemistry, Pharmacology, Solanaceae, Paneer dodi

## Effect of dextrose and urea on the solution thermodynamics of citrulline in aqueous solution at T = (288.15 to 318.15) K

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**Abstract:**

**T**he physicochemical properties play a pivotal role in interpreting the intermolecular interactions in the mixed components. In order to gain insight into such interactions volumetric and acoustic study of citrulline in aqueous solution of dextrose and urea is carried out. In this communication we report the study of density and speed of sound of aqeuous solution of citrulline

and citrulline in 0.06mol•kg-1urea and 0.06mol•kg-1dextrose at T = (288.15 to 318.15) K within the concentration range of (0.02 to 0.2) mol•kg-1. From the experimental data of density and speed of sound the various derived parameters such as apparent molar volume of solute , limiting apparent molar volume , limiting apparent molar expansivity , thermal expansion coefficient , second derivative of limiting apparent molar volume hydration number have been calculated. The results are co-related and interpreted in terms of ion–hydrophobic and hydrophobic-hydrophobic group interactions. The results confirm that solute-solvent/co-solute interactions are dependent on the molecular conformation of solute and co-solute. An attempt has been made to interprete the physicochemical properties in terms of the solvation behaviour.

## Sr.4Cu.6Fe12O19 hexaferrite nanoparticles as catalyst in synthesis of 1,4-dyhydropyridine derivatives as a reusable heterogeneous catalyst

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**Abstract:**

**S**ynthesis of 1,4-dihydropyridine derivatives was prepared from aldehydes, ethyl acetoacetate, and ammonium acetate in presence of hexaferrite as a catalyst which was prepared and characterized by XRD, SEM and TG/DTA. A comparison of XRD spectra of pure and copper doped catalyst showed additional split peak at (220) plane which suggests the insertion of copper in strontium hexaferrite. SEM images of ferrite show agglomerated particles with irregular shape. The thermograms of both the parent and doped catalyst show one step continuous pyrolysis without any break leaving. The DTA curve shows endothermic reaction.

**Keywords**: 1,4-Dihydropyridine, Hantzch reaction, Sr.4Cu.6Fe12O19 hexaferrite

## A Temporal Analysis of Sustainability of Sugarcane in Haryana

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**Abstract:**

Sugarcane crop has a significant place in Haryana's agriculture. Sugarcane provides employment to a large portion of population in sugarcane cultivation as well as in sugar industry. The importance of sugarcane enhanced after the introduction of ethanol blended petrol. Here, an attempt has been made to study the sustainability of sugarcane cultivation in Haryana state. The main objective of this study is to discover the temporal status of area, production and yield in Haryana state. The study will discover the status of sugarcane in state after the introduction of package technology. The present study used secondary data, obtained from Statistical Abstract of Haryana, Department of Statistics and Economics, mini secretariat, Kurukshetra from 1966-67 to 2020-21. The study presents the status of sugarcane with rate of transformation and sustainability of yield in Haryana. The study reveals that although the area under sugarcane cultivation has decreased in the state yet sugarcane yield has increased a lot from the time of inception of state to 2020-21. However, it is distributed unevenly among the districts of state. The increased production of sugarcane in Haryana is a result of high productivity of sugarcane.

**Keywords:** - yield, sugarcane, cultivation, sustainability, production

# Role of Technological Innovations in Agricultural Development: A study in the Indian Context

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**Abstract:**

The economic backbone of India has been its agricultural sector, which feeds around 45% of the country's people. However, issues like poor agricultural production, depleting natural resources, and the need to increase farmer incomes call for innovative approaches. In India, agricultural progress is now mostly driven by technological innovation. Indian agriculture has seen a transformation since the arrival of technology, with traditional farms being replaced by more contemporary ones that use cutting-edge machinery, devices, sensors, and information technology. Technology advancements include a variety of fields, such as genetic engineering, resource management, farm mechanization, conservation agriculture, climate-smart agriculture, biotechnology, biofortification, frontier technologies, and digital technologies. Robots are used for a variety of industrial activities in agriculture today, along with sensors for soil analysis, aerial photographs, and GPS for pinpoint field placement. These technologies are adopted in different ways depending on the commodities, technologies, and geographical areas. These technologies have the potential to address important problems like increased agriculture yields, resource efficiency, and climate resilience. They help farmers make well-informed decisions, use resources more effectively, and reduce hazards brought on by shifting weather patterns. In addition to addressing the sector's urgent problems, it also prepares the way for sustainable agricultural development. To fully reap the rewards of India's technologically-driven agricultural success, it will be essential to make ongoing investments in research, infrastructure, and capacity building. Overall, the introduction of more advanced technology has benefited employment creation, diversification, conservation of natural resources, input use efficiency, and agricultural output. This study examines the adoption levels of various improved technologies and their impact on farmers' income, agricultural production, natural resources, and the environment. The study also identifies constraints in up-scaling the technological infrastructure and highlights the recent technological innovations in Indian Agriculture.

**Keywords-** Technological innovation, climate resilience, sustainable agricultural development, technological infrastructure

# Need Of Sustainable Travelling Habits In Metropolitan Cities In India

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**Abstract:**

Being a responsible citizen of a country, it is a duty of every citizen to protect the available resources in the premises of country and make the best use of it. Citizens need not to do any extra efforts for this, but to change some of the lifestyle habits. We can achieve this resource

sustainability through changing in our living standards, travelling behaviors, change in consumerism culture and with more awareness towards the sustainable environment approaches.In this paper we do focus on how sustainable travelling habits can bring a change towards achieving the sustainable development goals. Sustainable travelling focuses on the impact of our travel on the environment and adopting the better practices to minimize these negative impacts. It is more towards finding a way that allows a person to travel with sustainability over a long period by reducing the carbon footprint.There are several ways through which we can go for sustainable travelling such as- More use of public transport, Carpooling, shifting towards electric vehicles, to follow the Odd-even roster system, more use of bicycles, prefer walking a for short distances, Avoid idling, Regular checkups and proper maintenance of personal vehicles and use of alternative fuels etc.To bring these positive changes, the efforts which can be done by the citizens are not sufficient. It is the Government which will have to take strict measures to ensure the establishment of required infrastructure. Government should do focus on the well-maintained public transportation system, Government policy for E-vehicles, implementing Odd-even system on a regular interval, building bicycle tracks along with roads, advertising awareness programs regarding walking habits, establishing all the offices at a single place, providing the citizens more options to chose and get the efficient fuel resources.

Changing in our lifestyle and going towards sustainable travelling habits can bring a positive change for sustainable environment management and of course to achieve our sustainable development goals.

**Keywords:** Sustainable travelling habits, Changing lifestyle, Sustainable development goals, Sustainable environment management

## A Geographical Perspective Of Climate Change And Its Impact On Agriculture

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**Abstract:**

Global climate change is not a future problem. Changes to Earth's climate driven by increased human emissions of heat-trapping greenhouse gases are already having widespread effects on the environment: glaciers and ice sheets are shrinking, river and lake ice is breaking up earlier, plant and animal geographic ranges are shifting, and plants and trees are blooming sooner. Effects that scientists had long predicted would result from global climate change are now occurring, such as sea ice loss, accelerated sea level rise, and longer, more intense heat waves. "The magnitude and rate of climate change and associated risks depend strongly on near-term mitigation and adaptation actions, and projected adverse impacts and related losses and damages escalate with every increment of global warming."(IPCC). In long run, the climatic change could affect agriculture in several ways such as quantity and quality of crops in terms of productivity, growth rates, photosynthesis and transpiration rates, moisture availability etc. Climate change is likely to directly impacts food production across the globe. Increase in the mean seasonal temperature can reduce the duration of many crops and hence reduce the yield. In areas where temperatures are already close to the physiological maxima for crops, Global warming will impacts yields more immediately. Drivers of climate change through alterations in atmospheric composition can also influence food production directly by its impacts on plant physiology. The

consequences of agriculture's contribution to climate change, and of climate change's negative impact on agriculture, are severe which projected to have a great impact on food production and may threaten the food security and hence, require special agricultural measures to combat with global climatic changes. The good news is that there are tools—in the form of science-based farming practices—that can buffer farmers from climate damage and help make their operations more resilient and sustainable for the long term. But farmers face many obstacles to changing practices, so it's critical that policymakers shift federal agriculture investments to support and accelerate this transition.

**Keywords:** Global Warming, Agriculture, Food Production, Sustainable, Farmers

## Land Use and Land Cover Change Detection Analysis of Sakri Tahasil Using Remote Sensing and GIS

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**Abstract:**

**S**akri Tahasil, located in the Dhule District of Maharashtra , india, has experienced signigicant transformations in its land use and land cover over the past decades. This research paper presents a comprehensive analysis of these changes, leveraging the power of remote sensing and Geographical Information System (GIS). The study employs multi-temporal satellite imagery to assess variations in land use and land cover from 2000-2020.The Methodology encompasses data acquisition, image preprocessing, supervised classification, and post-classification change detection. We identified major land cover classes, including Agriculture, forest, urban, and Water Bodies, and tracked their transitions over the study period.Results indicate substantial shifts in land use patterns, with rapid urban expansion and alterations in agricultural practices being prominent. The study reveals valuable insights into the spatiotemporal dynamics of land transformation in sakri tahasil. These findings hold crucial implications for local management, and sustainable development.

**Keywords**: Land use and Land Cover, Supervised Classification, Remote Sensing, GIS

## "Sustainable Development through Ecotourism: A Case Study of Gorakhpur, Maharajganj, and Sant Kabir Nagar Districts, India"

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**Abstract:**

**E**cotourism serves as a valuable tool for the development of areas, as demonstrated by a case study of three district, Gorakhpur, Maharajganj, and sant kabir nagar . Embedded in the fabric of nature and conservation ethics, the Indian tradition has long emphasized the interconnectedness of humanity and the natural world, advocating a lens of love and reverence towards all creations. Ecotourism, as conceptualized in this context, represents a fresh approach to tourism, extending beyond mere visits to natural attractions or locations. It embodies a commitment to responsible and sustainable engagement. Gorakhpur and its surrounding districts, including Ramgadhtal, Budhiya

Mata Mandir, Sohagi barwa (Maharajganj), and Bakhira tal (Sant Kabir Nagar), boast substantial potential for the development of world-class ecotourism experiences. This study not only highlights these ecotourism sites but also proposes techniques for ensuring their sustainability. By fostering local capacity building, creating employment opportunities, and empowering communities, ecotourism can effectively contribute to the fight against poverty and foster sustainable development. Employing remote sensing and GIS techniques, this study identified these locations and analyzed secondary data on visitor numbers within the region.

## Awareness and Necessity about Hazardous Solid Waste Management for Sustainable Development in Udaipur

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**Abstract:**

**U**daipur, the city of lakes and tourist city currently faces the challenges of Hazardous Solid Waste Management(S.W.M.). The environmental health of a city depends on the Hazardous S.W.M. This problem considered as a low priority area by Government and U.M.C. This paper studies focuses on the present scenario of S.W.M. services in the city, public and disposal units of government and semi government,private units's awareness towards this problem and their Hazardous Solid Waste related management practices, Status and impacts of improper disposal and management of Hazardous solid waste from various industries and solid waste products and residues of many forms on dumpsites and different recycle industries under R.I.I.C.O. that directly affects our environment through many ways like pollution point of view and role playing in climatic change through field survey based observation data and bar graph presentation shows comparison of quantity of that waste yearwise simultaneously it suggests better management strategies and plannings for sustainable development approach.

## Agricultural Production and Availability of Market Place; A Case Study

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**Abstract:**

**I**ndia is an agrarian country. India's economy is dependent on agriculture. India's agriculture is dependent on seasonal rains and although seasonal rains are unpredictable, modern technology and improved varieties make it possible for farmers to maximize production. Although modernity has made agriculture more productive, the gap between agricultural production and markets has had a major impact on income growth. Because where the gap between market and agricultural output is less, the income from agriculture is higher and where the gap between agricultural output and market is larger, the income from agriculture is lower. This paper has tried to explain how the gap between market and agricultural production affects the agricultural income

**Keywords:** Market, Agriculture, Income, Production.

# Social Media and its Impact on Buying Behaviour of Cosmetic Products in Consumers

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**Abstract:**

**F**or sharing the information about cosmetic products social media gains very great achievement. It is a transparent platform on which people easily connect and communicate, share their thaughts. Social media now become virtual media for both business and government. For marketing a product social networking bring various new pattern of marketing a product. In the growth of business social media and internet became backbone of every organization. To popularise its product in the market every business need to adopt social networking in their business. The motive of this research is to study the impact of social media on cosmetic product users. This study is descriptive in nature and include both qualitative and quantitative analysis. For the collection of primary data a structured questionnaire was formed and distributed among 80 respondents of Faridabad city. It is concluded from the study social mdia has positive impact on cosmetic users.

**Keywords:** Cosmetic users, beauty care products, indirect marketing, buying behaviour of consumer, traditional marketing.

# "A Study on Rural Development Schemes in India"

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**Abstract:**

**R**ural development is a crucial aspect of fostering inclusive growth and sustainable development in India. This research paper aims to investigate the various rural development schemes implemented by the Indian government, their impact, and the challenges faced in their execution. The paper delves into the evolution of rural development policies and initiatives, the key stakeholders involved, and the effectiveness of these schemes in uplifting rural communities. Furthermore, it examines the role of technology, financial inclusion, and community participation in enhancing the overall effectiveness of rural development initiatives. The findings of this study are expected to contribute to a better understanding of the dynamics of rural development in India and inform policymakers to design more efficient and targeted schemes for rural upliftment.

**Keywords:** Government schemes, Rural development, current issue, and Indian economy.

# "A Study On The Effect Of Overpopulation On Ecological Balance"

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**Abstract:**

Population on earth doubled from three billion to six billion people between 1960 and 1999. In several ways, this reflected good sign for humanity-child mortality rates came down, life expectancy increased and people were healthier on an average and better nourished than at any time in history. But on the other side, during the same period, changes in the global environment began to accelerate-pollution heightened, resource depletion continued, and the threat of rising sea levels increased. As the century begins, natural resources are under increasing pressure, threatening public health and development. Water shortages, soil exhaustion, loss of forests, air and water pollution, and degradation of coastlines afflict many areas. As the world's population grows, improving living standards without destroying the environment is a global challenge.We do not find any simple relationship between population size and environmental change. However, as world population continues to grow, limits on global resources such as potable water, arable land, forests and fisheries have come into sharper focus. In the last few years of the present century, decreasing farmland contributed to growing concern of the limits to global food production.Most developed economies currently consume resources much faster than they can regenerate. Most developing countries with rapid population growth face the urgent need to improve living standards. The paper highlights the effect of overpopulation on environment The paper tries to find out how resources are strained by overpopulation. The paper suggests that without practicing sustainable development, humanity faces a deteriorating environment and may even invite ecological disaster. The paper concludes that if every country made a commitment to population stabilization and resource conservation, the world would be better able to meet the challenges of sustainable development.

**Keywords**: Degradation, Environment, Overpopulation, Pollution.

# Role and Relevance of Corporate Disclosure Practices With Day To Day Investors In Stock Market Of Maharashtra

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**Abstract**:

Corporate disclosure can be defined as the communication of information by the people inside the firms toward people outside the main aim of corporate disclosure is providing to data of firm to public as well as investor. Disclosure practice is the show a data of our companies to outside investors. The financial statement and it's relating all economical information show to investors as well as publics. The corporate disclosure are obligating for regulatory by law, listing agreement and standard selling procedures by the professional bodies that way investors care of the interest day-to-day of stock market. Investors taking a decision about share which are sold and which companies share are profitable or not. This decision taking by market analysis which shows

in corporate disclosure practices. The company show financial statement to public because investors taking own decision for stock which have to invest. The company of quality of corporate financial report is an essential determinant of the quality of corporate governance. In a further information data analysis by Security and Exchange Board of India (SEBI) in its effort improves the governance standards constituted a committee of chairmanship, related party, risk management, directorship and financial disclosure of company. In Maharashtra taking a stock market information by Bombay Stock Exchange (BSE). It control by Security and Exchange Boardof India (SEBI). Corporate disclosure practices are using for evolving to change in social, legal and economic environment. Corporate disclosure is depending up on the voluntary, ethical code of business which connected with moral, value, management, and company behavior.

**Keyword:-** Corporate Disclosure Practices, SEBI, Investors, Share Market, etc.

# From Theory to Practice: An In-Depth Analysis of Sustainable Finance

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**Abstract:**

The concept of sustainability has gained significant attention and has been a subject of extensive discussion in recent times. It is also regarded as an essential part of the business, particularly within the financial sector. In modern times of technical progress, it is commonly believed that the finance sector is environmentally friendly and does not contribute to any harm to the environment. However, the actual situation contradicts this notion. Despite being seen as an industry that prioritizes environmental sustainability, some esteemed financial institutions are involved in various activities that are damaging to the environment. Several major banks in Europe and the United States have recently begun to actively address the issue of sustainability and have consequently implemented various adjustments in their day-to-day operations. In modern times, certain financial institutions gained recognition as producers of pure sustainability, owing to their proactive policies and strategic initiatives aimed at promoting environmental and societal well-being. The organisation under consideration prioritises Sustainable Development over profit maximisation.The primary objective of the present study is to facilitate and promote economic growth, while concurrently addressing and minimizing any adverse consequences on the environment and society. The present comprehensive examination of sustainable finance will encompass its fundamental principles, significance, obstacles, and prospective developments.

**Keywords:** Sustainable Finance, Sustainability Performance, ESG, ESG Investment, Sustainable Development (SD), Sustainability, Sustainable Development Goals (SDGs).

# Natural Gas as Most Reliable Energy Source for Sustainable Development: An analysis

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**Abstract:**

The role of natural gas in enriching and improving the quality of life on earth has assumed central and critical importance. All sustainable "development goals enunciated by the UNO to create an enduring equitable and progressive global economic order can be achieved if there is more and more shifting from others sources of energy to natural gas as a source of energy. Natural gas is a reliable, affordable, safe, clean and environment friendly source of energy. Our multiple problems related to gender equality, poor quality of education, social tension, health hazards unleashing of fatal diseases, economic disparity, catastrophic results in the wake of climate change, scarcity of potable water, toxicity of air to breathe, all these and many more issues can be satisfactorily resolved if significant transition from other sources of energy to natural gas as a resource of energy takes place. It is heartening that this kind of transition has already happened on a massive scale. The importance of the natural gas as a source of energy is being increasingly realized the world over. That is why the misuse of natural gas is considered a panacea to translate all SDOs into reality which will help mitigate all our socio-economic disorders" and tensions. In areas "where natural gas is produced at oil wells but is not economical to transport for sale or contains high concentrations of hydrogen sulfide (a toxic gas), it is burned (flared) at well sites. Natural gas flaring produces CO2, carbon monoxide, sulfur dioxide, nitrogen oxides, and many other compounds, depending on the chemical composition of the natural gas and on how well the natural gas burns in the flare. However, flaring is safer than releasing natural gas into the air and results in lower overall greenhouse gas emissions because CO2 is not as strong a greenhouse gas as methane."

**Keywords**: Natural Gas, Sustainable Development, Energy, Source, Health, Economic

# Local Knowledge of wild food plants used as traditional vegetable in Gondia district (MS), India

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**Abstract:**

This paper reports a number of wild plants, used by rural and tribal populations as traditional vegetables have to collect, identify and document information in Gondia district of Maharashtra state, India. Forty one species were identified as belonging to 29 family and 37 genera. Analysis of the information revealed that out of 41 Angiosperms species, 32 belongs to dicot and nine species belongs to monocot. Forty one wild species are used by the people were surveyed to determine the plant parts used and their detailed traditional vegetables preparations methods. Wild vegetables formed the largest group (17) which included bulbil, flower, flower and fruits, fruits, green fruits, leaf, roots, seeds, tendril, unripe fruits, young and tender leaves, young flowers and buds, young leaf, young leaf and corms, young leaves & flowers, young shoots, young shoot leaf. The results of this study show that the plants may be boiled or fried in fat.

**Keywords:** Wild edible plant, vegetables, Gondia.

## A review on Nutritional soils enhancing the Ecosystem Productivity

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**Abstract:**

**A**daptive processes protect plants in nutrient-poor soils and boost ecosystem productivity. Plants can scavenge and obtained nutrients. In nutrient-poor soils, cluster roots are prevalent. Plants expanding the root system with hyphae and boost nutrient intake by investigating more soils. Nitrogen fixing bacteria, which has an effect on the productivity and potential improve ecosystem stability and trophic levels. Phosphorus bioavailability and no changed soil community structures. In heterogeneous soils, plants typically adopt a number of different strategies for the uptake of nutrients. Farming varies from subsistence to commercial type. From the traditional farming like plantation, farming, organic farming, genetically modified farming and next hypha is nanofarming. A soil world at its best is made up of many active factors, all working harmoniously to maintain the soil's richness. These many factors make up the soil-fertility chain, every link of which has its own indispensable job to perform. This chain is Nature in constructive manifestation. Soil nutrient values are important in determining, if the soil is unbalanced which indicated by individual weeds.

**Keywords**- Soil, Ecosystem, Nutrition

## Predatory Soil Nematodes found in some plants

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**Abstract:**

**S**oil Samples Were collected form agriculture Field in order to study the population dynamic of soil nematode. Some interesting findings were noted during the survey of village Dongria.Six genera of soil nematodes, Family Amaranthaceous, Oionchus, Bathyodontus, and Iotonchus. Mylonchulus,) were found in areas flourishing with cereals and vegetable.in field were surveyed. Where Carrot (Duccus Carata) Chillies (Capsicum Anum) Potato (Solanum tuberosum) Okra(Abeimoschus esculentus), Radish ( Raphanus Sativus) Methi (Trigon Ella foenum graceum, Mustard ( Brassica Campestris) Spinach (Spinacia oleracea), Onion (Allium Cepa),(59.72) and (43.98) Respectively. Oionchus was dominant in Dongria region. Where nematodes population was very conducted for population Dynamics of nematodes in soil and root sample, representing above locations.

**Keywords**: Amaranthaceous, Oionchus Bathyodontus Iotonchus.Tirora.

# Miyawaki Forest on Social Lands

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**Abstract:**

**A** new method of afforestation in urban areas was pioneered by a Japanese botanist Akira Miyawaki. Miyawaki forest gives life to the barren land by planting native species. This brings back the lost flora and fauna. More vigorous growth is achieved within less duration of time when organic fertilizers, bagasse and cocopeat layers are well prepared in the soil. In this method seeds of different native plant varieties are sown close to each other so that when the canopy increases the sunlight cannot touch the ground, which will inhibit the unwanted growth of alien and parasitic species. Native species has the capacity to grow faster and dense in a short period of time. A special care is needed to the native species for the first three years and after that they can sustain by themselves. This method shows of great success to get back the lost biodiversity when grown on social lands like local temples, school -college campus, Crematorium land, government offices area, industrial areas, etc. Nearby societies, students, employees can adopt a patch where Miyawaki is made and can take care of saplings for the initial years. As Urban areas are battling with the environmental problems due to anthropogenic activities Miyawaki forest can act as a protective shield in various ways.Transforming the social barren land into the green land is the need of an hour. It increases the water holding capacity of the soil, retains the water table, prevents the soil degradation, helps in the nutrient recycling, mitigate the climate change, reduce the pollution in all spheres, and descends the temperature and act as a carbon sink by sequestering all the Green House Gas (GHGs) emissions. This can meet the Paris agreement. The entire ecosystem is restored. Each organism at each trophic level of the ecological pyramid flourishes proportionally. The endangered species are retrieved in the urban areas. This type of forest can be conserved and protected for the upcoming future generations. Miyawaki method can be adopted under the urban forestry mission to give a good start. This paper takes a close look at rapid growth of native trees and creation of forest in a very less time on social lands. All the above evidences shows transforming the social barren land into the green land with the help of Miyawaki forest is the need of an hour.

**Keywords** – Miyawaki forest, afforestation, native species, bagasse, ecoystem

# Scenario of organic farming in India and associated challenges

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**Abstract:**

**O**rganic farming, characterized by the avoidance of synthetic chemicals and genetically modified organisms, has gained global attention for its potential to provide sustainable solutions to the growing challenges in agriculture. Unlike conventional farming methods that heavily rely on pesticides, herbicides, and artificial fertilizers, organic farming utilizes natural processes to cultivate crops and raise livestock. This method is believed to offer a range of benefits, not only to the environment and human health but also to the overall agricultural industry. Organic farming in India has gained momentum over the years due to increasing awareness about the harmful effects of chemical pesticides and fertilizers on the environment and human health. However, the widespread adoption of organic farming practices is impeded by several challenges, ranging from limited awareness and certification complexities to market constraints. In this context, this paper

delves into the multifaceted advantages associated with organic farming. It examines how organic farming methods contribute to environmental conservation, enhance soil health, and promote biodiversity. Despite these significant benefits, organic farming encounters various challenges that hinder its progress. These challenges include the lack of awareness among farmers and consumers, the complex process of organic certification, and difficulties in accessing markets willing to pay premium prices for organic products. To overcome these challenges, the Indian government, NGOs, and other stakeholders need to work together to provide training, financial support, and infrastructure for farmers willing to adopt organic farming practices. This paper aims to shed light on the benefits of organic farming while critically analyzing the associated challenges to ensure a healthier future for both the environment and humanity.

**Keywords**: organic farming, fertilizers, pesticides, human health, certification

# Monitoring Environmental Biopollution In Kamptee, Dist-Nagpur With Volumetric Air Sampler

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**Abstract:**

**E**nvironmental biopollutant includes mostly the emission of pollen grains produced by flowering plants and spores produced by various types of fungi. These bioparticles are very small and microscopic in nature. These pollen and spores occurring in the atmosphere are referred to as aeroallergens and produce allergic manifestations in sensitive human beings. Significant qualitative and quantitative variation occurred in aeroallergens in the indoor and outdoor atmosphere. Spore trap samplers are capable of capturing all spores and particulate matter in the air. While many mould spores have a unique morphology and are identifiable by direct microscopic examination. In order to study qualitative and quantitative prevalence of bio-pollutants in outdoor environment, the volumetric Rotorod air sampler (Model-40) was installed on the roof of S.K.Porwal College, Kamptee for one year. A total of 67 pollen types and 24 species of fungal spores have been identified. From the allergy point of view pollen types such as Parthenium hysterophorus, Casuriana equisetifolia, Poaceae pollen grains, Ricinus communis, Cassia species, Eucalyptus species and fungal species like Cladosporium, Nigrospora, Smut spores, Alternaria, Helminthosporium, Penicillium and dominant Aspergillus spp. were found to be predominant types in the atmosphere of Kamptee.Impact of airborne pollens and fungal spores including their release, dissemination, deposition and effect is of great significance to identify the health hazards and physiological disorders in living beings. Study of this aspect is highly interdisciplinary in nature and has tremendous scope to find the significant application on human health. Exposure to outdoor and indoor airborne inhalant mold allergies develops airways diseases and allergies. Due to extreme adaptability, the fungal spores are encountered more or less throughout the year and thus in real sense there is no ‘Aero allergenic pollen and fungal spore free period in the environment.

**Keywords:** Environmental biopolution, volumetric air sampler, aeroallergen, Aspergillus spp.

# Comparative Analysis Of Phytoplankton In Two Reservoir / Dam Of Gondia District Using Morphological, Ecological Approaches

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**Abstract:**

We analysing planktonic diversity in katangi; reservoir and bodalkasa reservoir from different five sites. The most pollutant genera and species of algae were recorded from two sites of Bodalkasa and One site of katangi reservoir phytoplanktons encountered in the water body reflects the average ecological conditions and therefore, they may be used as indicator of water quality. The algal flora of polluted water bodies show the dominance of blue green algae diatoms like, Oscillatoria, Lyngbya, Anabena, Microcystis, Navicula, Nitzschia, synedra, Gomphonema, through out of the investigation many green algae like pandorina, scenedesmus, stigeoclonium, chlamydomonas also occur abundantly

**Keywords** :- Phytoplankton, Ecological condition polluted water body, Blue green algae, diatoms

# Management & Application of Typha angustifolia Menace for Sustainable Development.

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**Abstract:**

The Mula River is the lifeline for the Ahmednagar area. The Mula River water is used for drinking and agricultural purposes. Due to the huge, unrestricted use of various chemicals, fertilizers and pesticides in the agricultural fields, these chemicals wash out and mix with the river water flow, which eventually leads to eutrophication which leads to prevalent aquatic weeds in Rahuri. These aquatic weeds become serious problems for water stagnation, breeding grounds for mosquitoes, boating and fishing, altering the physico-chemical properties of rivers. So, such weeds can be managed in a pollution-free, eco-friendly and most economical way of solid waste management using 'Vermicomposting technology'. This study reveals the practice of various methods and tactics with the application of technology in solid waste (menace) management. Vermicompost produced by this technology is used for various crop cultivation practices and sustainable agricultural development.

**Keywords:** Aquatic weeds, Management, Vermicomposting Technology, Agriculture, Sustainable Development.

# Notes on Aphis craccivora (Hemiptera: Aphididae) from Washim District, Maharashtra, India.

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**Abstract:**

**A**phis craccivora, variously known as the cowpea aphid, groundnut aphid or black legume aphid, is a true bug in the family Aphididae. Aphis craccivora is a small species of aphid. The female has a glossy black or dark brown body with a prominent cauda (tail-like protrusion), and legs in some shade of brown or yellow. The antennae have six segments and these and the limb segments, cauda and cornicles are pale proximally (close to the body) and dark distally (further from the body). The adults do not have wax on their dorsal surface but the nymphs are lightly dusted with wax. Winged females are up to 2.2 mm long and have cross-barring on the abdomen. Wingless females are a little smaller. Aphis craccivora causes direct damage to plants by stunting and distorting growth. The honeydew produced is deposited on the plants and encourages the growth of sooty moulds which restrict photosynthesis. Also the aphid is the vector of a number of plant viruses.

**Keyword:** Aphis craccivora, crop pest, damage, life cycle, morphology

# Study of benthic fauna of Ulhas estuary at Saatpool, Dombivli, Maharashtra, India

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**Abstract:**

**T**he Ulhas estuary, situated in Thane district, experiences the pervasive influence of tides, which significantly affects processes such as sediment transport, nutrient cycling, and the distribution of benthic organisms within its ecosystem. Its health is also impacted by human activities such as sewage discharge and the release of industrial waste. study aimed to explore the diversity of benthic organisms and reveal the community abundance within the Ulhas estuarine environment at Saatpool, Dombivli. Handpicked sediment samples were sifted to isolate and study benthic fauna during the period from October 2022 to May 2023. Within the analysed samples, different animals belonging to phyla like Polychaete, Annelids, Nemertea, Mollusca, and Arthropod was identified. This diversity points to the existence of a complex and rich ecosystem. Naididae emerged as the predominant organisms, with Nereididae following closely, surpassing other organisms in abundance. The highest number of observed species was documented during the period from March to May. The present study helps to bridge a knowledge gap by furnishing crucial data on both the diversity and abundance of benthic life at Saatpool, Dombivli of the Ulhas Estuary. This data holds the key to unravelling the intricate relationship between habitat characteristics and benthic abundance, a crucial understanding for the effective conservation and management of coastal environments.

**Keywords**: Ulhas estuary, Saatpool, Benthic fauna, Naididae, Nereididae

# Physico-chemical Parameters of Termite Mound Soil from Shirdi.

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**Abstract:**

**T**ermites are the isopteran insects living associated with the soil. This are the social insects with complete social organisation & behaviour, division of colony members. This are the colonial insects and makes the nest by using the soil materials. Shirdi town is an urban area near to Rahata Tehsil with predominant Termite mounds nest. This Termite mound soil is analysed to study various physico-chemical parameters in the nest soil and surrounding soil treated as Control. There is a significant difference in the Termite mound soil & surrounding control soil. This study also reveals the role of the Termites in the soil formation and composition of various physico-chemical parameters of the soil.

**Keywords:** Termites, Shirdi, Physico-chemical Parameters, Termite Mound Soil, Analysis.

# Hydro-Geochemistry and Human Health: A Brief Review.

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**Abstract:**

**T**he groundwater is of great potential for the fresh water in the perspective of human settlements. The quality of the groundwater for the drinking purpose is certainly the requisite for the human health. The groundwater is mostly affected by the geo-genic sources. These sources make various ions of major and minor in quantity to get dissolved in the groundwater regimes. Certainly, few trace elements are too attributable to the geo-genic sources. In usual case the dissolution does not pose any threat, but on an interference of the external or in situ driving force can disturb the fragile balance of the hydro geochemistry. In such situations, the ionic concentrations in the groundwater pose a serious threat to the living dependable. The major ions are very obvious in the groundwater but on excess concentration can cause human health issues. The trace metals on the other hand are not typical in the groundwater but, on existence are of severe consequences to the human health. The abandonment of the contaminated groundwater sources is usually advisable but, the thoughtful monitoring of the existing groundwater sources could help the long distant goal in terms of water quality and human health. The present article is a concise review of hydro-geochemistry and human health association.

**Keywords**– Groundwater, Hydro-geochemistry, Geo-genic sources, Contaminations, Heavy metals.

# Climate Smart Irrigation Measures for Sustainable Agriculture

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**Abstract:**

India is an agricultural country and it is the backbone of its economic development. Rapid industrialization, urbanization, and globalization have resulted in global warming leading to global climate change. Global climate change has an adverse impact on various aspects of our planet Earth. The adverse impact of global climate change on Indian agriculture will be pronounced as the vulnerability of marginalized and small farmers and their capacity to cope with it puts them at the receiving end. In India, the farmers depend upon groundwater as a major source of irrigation (~70%). Presently only about 35% of the total agricultural land in India is irrigated. Irrigation facility is available to only one-third farmers of in India, which makes them vulnerable to crop loss due to the non-availability of rainfall and inadequate irrigation facility. Of the major reasons identified for farmer's suicide in India irrigation water scarcity is an important one (94%) which may catalyst other agricultural problems. To compound these matters there has hardly been any new creation of irrigation potential by the State for the last 25 years. In this backdrop climate, smart irrigation measures for sustainable agriculture are essential. In this paper, various climate-smart irrigation measures such as micro dams, irrigation scheduling, alternate wetting and drying for paddy, a modified system of rice intensification, rubber check dams, precision water application, mulching and no-tillage, mulching with plant residue for moisture, crop calendar according to the season for water utilization, drip irrigation under plastic mulch, community water tanks, and conservation agriculture are examined. The government should take measures for the creation of irrigation facilities by interlinking rivers and encouraging rainwater harvesting. This paper argues that by providing climate-smart irrigation measures to Indian farmers their vulnerability to climate change can be reduced to a greater extent and their capacity to cope with it be leveraged to pave the way for sustainable agriculture.

**Keywords:** Agriculture, Climate-smart agriculture, Irrigation, Sustainable agriculture

# Industrial Waste Management By Green Sustainable Technology

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**Abstract**

Increased human population and human activities have led to environmental pollution. The industrialization has increased the release of pollutants. Pollutants released from industries are toxic and non-biodegradable. Therefore there is an urgent need to clean up the environment or it might cause a major risk to both human health and the natural environment. Biotransformation, Bioremediation, Biosorption using microorganisms are effective techniques employed for removing toxic waste from polluted environment that is gaining popularity. These processes makes use of various microorganisms, including aerobes and anaerobes and even plants for treating the contaminated sites. Among all these, microorganisms play a major role in converting hazardous wastes and pollutants to less toxic or non-toxic substances. Different combination of techniques are employed based on pollutant types and concentrations present in the contaminated sites. This

review emphasizes recent advanced technologies, challenges and future perspectives so that researchers can work on the implementation of new techniques for the effective degradation of different pollutants to reduce the amount of pollution in the environment.

**Keywords:** Biotransformation, Biosorption, Solid waste management.

## Eco-friendly green synthesis of zinc oxide nanoparticles using leaf extract of Bauhinia tomentosa and their antibacterial activity

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**Abstract:**

This study observed the eco-friendly synthesis of zinc oxide nanoparticles (ZnO NPs) employing Bauhinia tomentosa leaf extract as a bioreducing agent. By using a UV-Vis spectrophotometer, SEM-EDX, and XRD investigations, the green-synthesised ZnO NPs were characterized. The development of a distinctive SPR peak at 370 nm caused by the collective oscillation of electrons in the conduction band in UV-Vis spectra served as confirmation of the production of ZnO NPs. The XRD measurements revealed the hexagonal morphology revealing nanosized ZnO. ZnO NPs showed significant antibacterial activity against Gram-negative bacteria Pseudomonas aeruginosa and Escherichia coli than Gram-positive bacteria. Our results demonstrated that B. tomentosa leaf extract containing phytochemicals such as alkaloids, terpenoids, flavonoids, tannins, carbohydrates, and sterols possess bioreducing property for ZnO NPs synthesis and could be employed effectively as a better bactericidal agent for biological applications. ZnO NPs could be utilized as antibacterial agent in biomedical, textile, and food industries.

**Keywords:** ZnO NPs, Bauhinia tomentosa, Bioreducing agent, Antimicrobial activity, Phytochemicals

## Optical properties of Cerium co-doped Gd2O3:Eu3+ for solid state lighting.

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**Abstract:**

Since gadolinium oxide, is a very important luminescence material, because of their large Stokes shift, sharp emission spectra with large lifetime, and good stability. Thus we synthesized Gd2O3:Eu3+ = 1 mol% and found the effect co-doped Cerium ions on it (Ce3+ =0.1, 0.5,1 & 2 mol %). Nanomatrials are prepared by Pechini sol gel method with sintering at 8000C which is very economical method. The optical properties of the synthesized nanophosphor were investigated by photoluminescence spectroscopy, FTIR, X-ray diffraction (XRD), and SEM techniques. The effect of Cerium concentration on emission intensity and external morphology has been discussed. The XRD pattern of Gd2O3:Eu3+ revealed a cubic crystalline structure doping Cerium ions doesn't affect the original pattern. The Ce3+ co-doped Gd2O3:Eu3+ shows a broad band ranging from 390 nm to 550 nm due to Ce3+ ions and red - orange luminescence around 613

nm under NUV and mid UV exciting radiations. SEM and XRD results are used to find out average cystaline size and lattice parameter. Particle size of prepared sample is found in few nanometer ranges. From the obtain results, we can show that prepared rare earth ions doped gadolinium oxide can be used for solid state lighting , under NUV and mid UV exciting radiation. FTIR spectra confirmed the presence of O–H stretching, H–O–H bending vibration and the strong M-O stretching bands were observed in the FT-IR spectrum at 650 to 485 cm−1. The stimulated CIE chromaticity coordinates were also calculated.

**Keywords:** Ce3+, Gd2O3:Eu3+, SSL Under NUV, PL, XRD, FTIR, SEM.

## Semiconductor Quantum dots: An Overview of Synthesis, Properties and Applications.

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**Abstract**:

**Q**uantum dots (QDs) have great interest due to their unique electronic, optical and structural properties. In this review, a critical analysis of the latest advances in the synthesis, properties and applications of quantum dots. In synthesis techniques, including colloidal and hydrothermal synthesis and highlight how the underlying principles of these techniques affect the resulting properties of quantum dots .The wide range of applications of quantum dots from QDs based color conversion, light-emitting diodes and biomedicine to quantum-based cryptography and spintronics. Synthesis and characterization of quantum dots refer to the process of creating and studying the properties of it. Synthesis involves the methods used to create Quantum dots, such as colloidal synthesis, chemical vapour deposition (CVD) and physical vapour deposition (PVD). Characterization involves studying the properties of the quantum dots such as size, shape, composition and optical properties. This can be done using techniques such as Transmission Electron Microscopy (TEM), X-ray diffraction (XRD) and spectroscopy such as absorption and photoluminescence. The aim is to understand the relationship between the synthesis conditions and the resulting quantum dots properties. Finally, it has been discussed the optimization of synthesis conditions to produce high-quality quantum dots with desired properties for different applications and identify the current challenges, future prospects for quantum dot research and potential for future development.

**Keywords**: Quantum dots, Colloidal synthesis, Spectoscopy, Optical properties.

# Challenges, Barriers, and Opportunities of Sustainable Development

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**Abstract:**

**S**ustainable development is a multidimensional idea that captures the idea of peaceful cohabitation between people and the environment. It is a worldwide imperative in the face of urgent environmental, social, and economic concerns. This abstract offers a condensed summary of the major ideas covered in the lengthy essay on the "Challenges, Barriers, and Opportunities of Sustainable Development."The difficulties section highlights the significant natural obstacles, such as biodiversity loss, resource depletion, and climate change, together with intricate social and economic problems including poverty and inequality. These issues are interrelated and need a comprehensive strategy for successful mitigation.Technology limitations, budgetary limits, and governance and policy hurdles are all examples of barriers to sustainable development. To get beyond these obstacles, we need efficient governance systems, technical advancements, and financial investments.In contrast, the possibilities section emphasises how sustainable development has the power to alter. While education and awareness initiatives plant the seeds of sustainable behaviour change, industries that use renewable energy and resource-conserving technology promise to revolutionise.

**Keywords:-** Challenges, Barriers, Opportunities, Sustainable Development

# Problems & Solutions of Environmental Issues in India

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**Abstract:**

**A**lthough India has a rich and long history of environmental laws dating back to the 1970s, it still ranks very low on air and water pollution levels compared to the rest of the world resulting in. higher rates of infant mortality and lower life expectancy rates. Poor sanitation conditions and sewage problems compound the problem affecting the health of ordinary citizens in India. The reasons for this disconnect between enlightened environmental laws and high levels of pollution could be traced to lax enforcement of existing environmental laws, discrepancies in the environmental guidelines for businesses to follow between the central government and at the state levels, and the existence of a large number of SMEs who neither have the resources nor the technical skills to adhere to the existing environmental laws. Using extensive secondary research, this paper suggests a series of steps to help the country achieve safe air and water pollution levels resulting in improved health conditions for its citizens. The cornerstone of the prescription for improvements in the environment is a collaborative arrangement that brings together the various government agencies, the citizens, SMEs, large domestic companies, and NGOs to participate in a collaborative arrangement to educate, streamline effective policies, develop the necessary institutional infrastructure, and provide adequate funding for improving the environment.

**Keywords:** environmental issues, problems, solutions, pollution, sanitation.

# Exploring Environment and Migration link in the Lower Assam

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**Abstract:**

Assam is a state of North-East India. Culturally and geographically, Assam can be divided into two regions like Upper Assam and Lower Assam. It has a climate of temperate, humidity and heavy rainfall and physiographical divisions are of three namely, the Brahmaputra Velley, Barak valley and the Karbi-Along and the North -Cachar hills. Among them, Brahmaputra Velley is the longest. Brahmaputra, main river of the valley, having 20 important tributaries up to Dhubri District. Since longest time, these rivers have been the source of creativity for many verse makers and story tellers from Assam. Like the Brahmaputra and its tributaries, the settlers of riverine area of lower Assam District embrace a heterogeneous identity. This study is a reiterating of the narrative of the banks of the rivers, incorporating its progressive elements and making up together tales of the people displaced due to environmental factors. Anil Roychoudhury states about a structural change after the alteration of the course of the Brahmaputra River and its tributaries. 1970 which saw researchers' initiative into a new kind of academic discourse that made linkages between environmental degradation and migration. Despite these attempts, the term "environment migrants" and" Climate refugee" has not come under unanimous understand for international community and it has failed in this regard. Lack of universal recognition of the problem is a reason to worry, particularly, in the eastern regions of India. The districts of Assam located in the lower course of the Brahmaputra, especially Barpeta, Bongaigaon, Goalpara and Dhubri district feature as "hotspots" for climate change. The inhabitants residing in these areas are particularly vulnerable to influence of climate change which apparent in the form of constant floods, gradual erosion of the banks due to change in the volume of water. The main aims and objectives of this paper is to focus the nature of forced internal migration as a result of displacement due to the above reasons. Migration in these circumstances is unavoidable and permanent. Assam has a long history of several phases of external migration right from the colonial times due to various causes. The effects of external migration have been tumultuous and history has shown that integration of these new communities into the social and economic structures of Assam have been far from harmonious. With the start of an increasing scale of internal migration, especially from the low lands in the banks of Brahmaputra to urban areas like Guwahati, Nagaon etc., one needs to gauge the efforts of the state and the civil society to ensure a non-hostile integration of the migrants into the towns and cities. This study is an inter-disciplinary approach using qualitative research, and secondary sources like journals, relevant books and government reports etc. has been used. To conclude, this paper attempts to uphold the fact that environment degradation and effects of climate change on the river Brahmaputra are a notable cause of internal migration from areas close to the river of lower Assam district into the urban areas. There is a necessity to establish universalized definitions in order to recognize environment migrants in the global sphere. The state strategies should not just focus on rehabilitating environment migrants and reducing effects of climate change, suitable measures should be taken towards creating sustainable infrastructure within the hotspots so that migration does not remain as the only practicable option for displaced people.

**Keywords-** environment migrants, internal migration, displacement, rehabilitation, Riverine Area.

# The Socio- Environmental Perspective in Amitav Ghosh's Sea of Poppies

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**Abstract:**

The environmental issues have gained the prominent place in contemporary discourse across the globe. In Indian context, reflection of ecological concerns in literature can be visualized in the writings of many eminent Indo-Anglian writers including Amitav Ghosh, a prominent postmodern writer of English literature. The present paper deals with Amitav Ghosh's Sea of Poppies, a novel which unfolds a vast canvas showcasing expansionism, industrialization, illicit trading by the East India Company for money culminating into exploitation of nature and its habitants during the colonial era in India that have dangerously affected Indian fruitful land, waterways and other natural resources. The novel deals with forced cultivation of opium and its perilous impact on the life of the living being and environment. The backdrop to Sea of Poppies is the Opium Wars of 19th century, the inglorious record of brutalities, displacement and human devastation caused by imperialism. From the socio-environmental perspective, the novel is a narrative of man-made disasters that not only posed threat to ecological balance but also disrupted the economic, domestic, cultural stability of life in northern India in the 19th century.The novel Sea of Poppies depicts the fertile Gangetic plains bloomed with beautiful poppy flowers. The fascinating yet intoxicating poppies spoil farmers' practice of growing traditional crops for their livelihood. The variety of yield is lost owing to the cultivation of opium which is made mandatory by the British rulers. The large scale enforced farming of the single cash crop disturbed the subsistence agriculture of the region who are denied growing food for their consumption. It's not only the people who suffer but the whole ecology is ruined by exploitation of natural resources by greedy insane rulers. The plethora of characters in the novel are the victims of brutality and greed of the rulers, seem to be helpless in the challenging circumstances and are destined to be dislocated. The dislocation snaps the intimate bond between man and place resulting in irreparable loss of identity and inexplicable trauma.

**Keywords**: Opium, environment, cultivation, colonial era, ecology

# Education and Sustainable evelopment Education

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**Abstract:**

Because environmental consciousness and empowerment cannot be established quickly, research on primary school education within the context of education for sustainable development, or ESD, is crucial. Meanwhile, environmental damage brought on by human activity is enormous. According to this descriptive study, primary school kids have a solid awareness of the environmental, social, and ego pillars of sustainable development. However, the comprehension of students regarding environmental concerns varies between classes. Higher education does not result in greater student comprehension of eco-friendly education. This study has also shown that

pupils' comprehension of environmental concerns is unaffected by a school's administration.

**Keywords:** education for sustainable development, eco-friendly education, primary school

# The Intersections of Social Problems and Environmental Challenges: A Critical Review of the Literature

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**Abstract:**

Social problems and environmental challenges are two of the most pressing issues facing humanity today. These issues are complex and interconnected, and they have a profound impact on the well-being of people and communities around the world. This paper critically reviews the literature on the intersections of social problems and environmental challenges. The paper begins by defining social problems and environmental challenges, and it discusses the different ways in which these issues are interconnected. The paper then reviews the literature on the impact of social problems on environmental challenges, and the impact of environmental challenges on social problems. The paper concludes by discussing the implications of this research for policymakers and practitioners. The paper finds that social problems and environmental challenges are interconnected in a number of ways. For example, poverty can lead to environmental degradation, as people living in poverty may be more likely to engage in environmentally harmful activities, such as deforestation or poaching, in order to survive. Additionally, environmental problems, such as climate change and pollution, can have a disproportionate impact on low-income communities and other marginalized groups.The paper also finds that social problems and environmental challenges can have a significant impact on each other. For example, climate change can lead to displacement, poverty, and food insecurity. Additionally, pollution can cause a variety of health problems, such as respiratory problems, heart disease, and cancer. The paper concludes by discussing the implications of this research for policymakers and practitioners. First, the paper argues that it is important to recognize that social problems and environmental challenges cannot be addressed in isolation. Policies and programs that aim to address social problems must also consider the environmental impacts of those policies and programs. Additionally, policies and programs that aim to address environmental challenges must also consider the social impacts of those policies and programs.Second, the paper argues that it is important to ensure that all people have an equal voice in the decision-making process related to social problems and environmental challenges. Marginalized communities are often disproportionately impacted by these issues, and it is important to ensure that their voices are heard and that their needs are considered.Third, the paper argues that it is important to invest in research and development to find innovative solutions to social problems and environmental challenges. Many of the challenges that we face today are complex and require new and creative solutions. By investing in research and development, we can develop new technologies and approaches that can help us to build a more sustainable and equitable world.

**Keywords:** Social problems, Environmental challenges, Poverty, Health problems, Marginalized communities, Research and development

# Role Of Government In Protection Of Environment To Achieve Sustainable Development With Reference To Economic Development.

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**Abstract:**

Economic development is important aim of improvement of human welfare During these days not only economic development but economic damage has common concern in whole world. To solve the issue of environment damage increase investment in environment protection and consider environmental responsibility is necessary. The government has playing major role for protecting environment by way of various Department at National, State and District level, Central and State Pollution Board, and in various zones of India Green Tribunal etc. Sustainable development is need of an hour because environment and economy are interdependent and need each other. Hence sometime development ignores its repercussions on the environment. All future generation to have quality life that is enjoyed by current generation is basic concept of sustainable development need to achieve with take in to consideration economic development. economic development produces waste which pollute the air and water and depletes natural resources. The connected trends of urbanisation and continued growth of the country have serious effects on the surrounding environment and this co relation has led to commonly held belief that economic growth and environmental protection are naturally exclusive.This paper explores the role of government in environment protection to achieve sustainable development. The paper examines importance of economic development and awareness through education of environment protection. Finally, the paper concludes that the government plays an important role in protection of environment and to achieve sustainable development.

**Keywords**: Government role, Environment Protection, Economic development and Sustainable development.

# Effectiveness of the POSH Act, 2013 in Addressing Workplace Harassment in India

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**Abstract:**

A fundamental human right of women is the full and equal participation in all domains of community and society. Though, women are disproportionately underrepresented in each and every domains of life, including education, political, social, entertainment, and the workplace. The gender gap in labour force participation among prime working age adults) has been stable over the past twenty years when seen as a whole. The deep-seated occupational segregation that persists in developed and developing nations has not been much impacted by women's increased access to education. Unpaid care and domestic labour are still disproportionately performed by women. Women are facing many problems at workplace. Women are becoming victim of harassment, exploitation etc. The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 or POSH Act, 2013 was legislated by the Government of India for providing safeguard to women against sexual harassment at the workplace and prevention as well as redressal

of complaints related to sexual harassment at workplace correlated matters. The POSH Act, 2013 mandates the creation of Internal Committees (ICs) and Local Committees (LCs) to handle complaints of workplace sexual harassment. This paper will focus on the impact of the POSH Act, 2013 on the society. This body of law now includes the 2013 Sexual Harassment of Women in the Workplace Act, which is a positive development. It has received a lot of praise and criticism recently. A important piece of legislation, the POSH Act 2013, seeks to safeguard female employees against sexual harassment in both the formal and unofficial workplaces. Regardless of size or type, the Act applies to all workplaces, including institutions, public and commercial sectors, institutions, and government and private organizations. The POSH Act is a significant advancement in ensuring that women in India can benefit from a secure and respected workplace. Through this Act, the government aims to give women a secure and safe working environment and has established procedures for preventing and resolving sexual harassment claims.

**Keywords:** Sexual Harassment, Effectiveness, POSH Act, Workplace, Addressing, Impact

# Study to Explore the Factors Compelling Elderly to Reside in an Old Age Home with special reference to Nashik City, Maharashtra.

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**Abstract:**

**W**ithin the backdrop of India's culturally rich heritage, this research delves into the evolving patterns of elderly care within the country. From birth, Indian children are taught values that stress respecting elders and consider parents as divine images. This research examines the evolving landscape of aging in India, where the once traditional coexistence of multiple generations in joint families has evolved into a scenario where a significant portion of the elderly population resides in old age homes. Recent societal changes, driven by industrialization, modernization, urbanization, and increased migration, have disrupted the traditional family structure. Nuclear families are on the rise, and many young individuals seek opportunities abroad, leaving their aging parents behind. This societal shift is reflected in the increasing prevalence of old age homes across the country. Drawing data from various old age homes in Nashik, Maharashtra, this study deeply explores the factors influencing the elderly individuals' decisions to move to these specialized care facilities. The study includes 143 institutionalized elderly individuals, mostly from rural backgrounds, with limited formal education, widowed, and financially dependent on others, with a notable majority being females. The study sheds light on the primary reasons elderly individuals choose/are forcefully sent to old age homes. These include experiences of verbal and physical abuse within their families, financial constraints, the absence of family care, declining health, and diminished self-esteem. Surprisingly, even though they encounter various difficulties, many elderly people express contentment with the services offered by the old age homes. Their determination is often underscored by the belief that they must endure until their time, as ordained by a higher power. As India's elderly population continues to grow, this research enhances our understanding of the various dimensions of aging in India, encompassing social, psychological, and economic aspects. It provides valuable insights into the intricate interplay between tradition and modernity in the realm of elderly care, addressing the evolving needs of the aging population.

**Keywords**: Elderly, Old Age Homes, Shift , Family, Parents, Elderly, Elderly care.

# Development of an Aptasensor for the detection of Cyanotoxins

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**Abstract:**

**C**yanobacterial toxins cause significant harm to both human and animal health, and most of the countries are working to address these issues through water quality management programmes. There has been a lot of focus on the toxicity of the family of microcystin congeners to both animal and cell models; although, less are known about their adverse impact on human health, whether from acute or chronic exposure. Despite this, cyanotoxins are categorized into hepatotoxins (microcystin, MC, and nodularin, NOD), neurotoxins (anatoxin-a, -as, and homanatoxin), cytotoxins (cylindrospermopsin), dermatotoxins (lyngbyatoxin), and irritant toxins based on their harmful mechanisms to vertebrates. Chronic exposure to MCs concentrations, primarily from ingesting them as well as getting into touch with them through contact with the skin, has been reported to cause health issues in humans and animals. The liver, intestines, brain, heart, lungs, kidneys, and reproductive system are merely a few of the mammalian organs that might suffer significant harm by exposure to certain cyanobacteria. The limits of microscopy have been overcome by molecular techniques. These techniques involves nucleic acid-based experiments to identify toxins by, Random Amplified Polymorphic DNA (RAPD), Polymerase Chain Reaction (PCR). Rapid, reliable, and cost-efficient molecular techniques rely on PCR targeting genes involved in the synthesis of cyanotoxins will be employed in this study to aid in the early detection of potentially toxic cyanobacteria. Due to their high specificity and sensitivity, DNA aptamers and DNAzymes-based sensors known as "catalytic beacons" among biosensors have been extensively researched and developed. Due to its high sensitivity and low limit of detection (LOD) in comparison to other approaches, DNA-based aptasensor has gained a lot of interest in recent years.

**Keywords-** Cyanotoxin, Diseases, Polymerase, DNAzyme, Sensor etc.

# Drainage Morphometry of Kurkheda Block Watershed from Wainganga-Khobragadi River Basin Gadchiroli District Maharashtra, India

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**Abstract:**

**D**rainage Morphometry and groundwater occurrence is very closely related to one another. At the same time availability of ampule safe and clean water for drinking purposes is also a burning issue for this space of time. Water is now declared as food and hence providing the required quantity with desired quality is now becoming a biggest challenge for the scientist working in the field. Hence in this research paper a small effort for establishing some more connections in between drainage morphometric analysis with its occurrence and its drinking water quality is made. By using the GIS & RS techniques correlate the composition of the stream system of a drainage basin in expressed quantitatively with stream order, drainage density, bifurcation

ration and stream length ratio (Horton, 1945). It incorporates quantitative study of the various components such as, stream segments. Basin length, basin parameters, basin area. Altitude, volume, slope, profiles of the land which indicates the nature of development of the basin.

**Keywords:-** Watershed, River basin, Morphometric analyses, Kurkheda block and GIS & RS techniques.

# Surface Water Assessment around Lalpeth Colliery, District Chandrapur, Maharashtra.

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**Abstract:**

In the race of economic growth every nation is relying vigorously on natural resources among which coal holds lion share. An exploitation of coal generates economy with an exponential rate, which has made coal as tool for development. On one hand development of some and on another penalty for others executes simultaneously. Water quality has been most casually penalised factor for the so called development. Present study is all about surface water quality in terms of heavy metal contaminations and process responsible, around Lalpeth colliery, situated at the periphery of Chandrapur city. Lalpeth colliery is geologically a part of Wardha valley coalfields, a part of Gondwana basin. Surface water samples were taken with standard procedure in pre- & post-monsoon of which analysis has been done by AAS. Results shows the in an average, surface water quality is satisfactory for potable and domestic use. At some locations, heavy metals like Aluminium and lead are above permissible limit and some others are very close to the contamination level. Pre-monsoon and post-monsoon data revels the rock water interaction or some anthropogenic point source for Aluminium & Copper as the major method of dissolution. In case of others the concentration has decreased in post-monsoon, which indicates dilution. Water bodies nearer to mine are more vulnerable to contaminations. This study provides a base structure for design mitigation policies.

**Keywords** – Heavy metals, Surface water, colliery, coalfield.