DROUGHT MANAGEMENT

Field Project Submitted to the Department of
English All Saints' College
2020-2021

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Drought Management.

Drought

Drought connotes a situation of water shortage for human, cattle and agriculture primarily on account of, though not limited to, significant shortfall in rainfall. Drought is a temporary aberration, unlike aridity or even seasonal aridity which is a permanent feature of climate. Drought in contrast is a recurrent, yet sporadic feature of climate, known to occur under all climatic regimes and is usually characterized by variability in terms of its spatial expanse, intensity and duration. Conditions of drought appear primarily, though not solely; on account of substantial rainfall deviation from the normal and the skewed nature of the spatial or temporal distribution to a degree that inflicts an adverse impact on crops over an agricultural season or successive seasons. What is universally accepted is that drought stems from a deficiency or erratic distribution in rainfall but the spread and intensity of the calamity is contingent on several factors, including the status of surface and ground water resources, agroclimatic features, cropping choices and patterns, socio-economic vulnerabilities of the local

population etc. It is difficult to provide a precise and universally accepted definition of drought due to its complex nature and varying characteristics that manifest across different agroclimatic regions of the world in a myriad different ways. Drought differs from other natural hazards such as cyclones, floods, earthquakes, volcanic eruptions, and tsunamis as there is no universally accepted definition that can encapsulate the complexity of this phenomenon adequately. It is difficult to determine the beginning and end of a drought episode because of the slow, 'creepy' onset, silent spread and gradual withdrawal. In India, it is generally considered to be coterminous with the monsoons. There is no indicator or index which can precisely forecast the advent and severity of a drought event, nor project its possible impacts. Spatial expanse tends to be far greater than in the case of other natural calamities, which when compounded by the difficulties associated with the impact assessment of the disaster, makes effective response highly challenging. Impacts are generally non-structural and difficult to quantify e.g. the damage to the ecology, the disruption of socio-economic fabric of communities, the long term effects of malnutrition on health and morbidity etc. The impact tends to get magnified in the event of successive droughts. The occurrence of drought is contingent on a number of factors such as cropping choices and agronomic practices, soil types, drainage and ground water profiles etc. However, rainfall deficiency and spatial and temporal distribution, duration and dry spells are acknowledged as the most important triggers for drought. Drought produces wide-ranging impacts that span across many sectors of the economy. Drought affects the overall economy of the country at macro

and micro economic levels, both directly and indirectly. Direct impacts are usually visible in falling agricultural production and heightened food insecurity among poor and vulnerable sections; depleted water levels; higher livestock and wildlife mortality; cattle and animal migration; damage to ecosystem from indiscriminate exploitation; increased fire hazards etc. Indirect impacts of drought can be gauged from the reduction in incomes for farmers and agribusinesses, increased prices for food and fodder, reduction in purchasing capacity and slump in consumption, default on agricultural loans, distress sale of agricultural land & livestock, rural unrest, shrinkage in avenues for agricultural employment etc. These deleterious impulses have huge negative multiplier effects in the economy and society. Environmental impacts can be gauged from low water levels in ground water and surface reservoirs, lakes and ponds, reduced flows in springs, streams and rivers, loss of forest cover, migration of wildlife and sharpening man-animal conflicts and general stress on biodiversity. Reduced stream flow and loss of wetlands may affect levels of salinity. Increased groundwater depletion rates, and reduced recharge may damage aquifers and adversely affect the quality of water which in turn may lead to a permanent loss of biological productivity of soils.

Human activities causing drought

Human activities also can trigger droughts. Besides meteorological factors that cause drought, human activity can also be a factor. Human activity has reduced the amount of rainfall in many regions of the world. Sometimes how much water

humans consume, and the timing of that consumption, factors into how much water is available at a later date for people, plants and animals. Thus, drought can also be viewed as an imbalance between supply and demand. Widespread cutting down of trees for fuel reduces the soil's ability to hold water causes the drying out the ground, triggering desertification and leading to drought. *Constructing a dam* on a large river may provide electricity and water to irrigate farmland near the reservoir. However, it may also cause drought downstream by severely reducing the flow of water. Human activities such as overgrazing, over-cultivation and the collection of firewood can lead to desertification, particularly when combined with drought conditions. The result is crop failure, soil erosion, famine and hunger: people are then less able to work when their need is greatest.

Deforestation causes drought because it prevents plants from nourishing the earth. The fibrous roots of plants absorb and hold considerable amounts of water which is slowly released into the soil. during the dry season water will treacle down the channels beside the fields. But when the plants are removed and the crops are harvested, the supply of water dries up. *Global warming* influences the statistical frequency and severity of droughts in Australia. The warmer temperatures cause greater evaporation, particularly during summer, which can increase the chances of wildfires. It is said that conditions will become drier in the southern half of Australia and wet years will become less frequent in the next 50 years or so. *Burning fossil fuels* contribute to global warming. The growing

population of human beings has increased the amount of water being used, which has subsequently lead to a higher demand for water. More people on earth means more food needs to be produced, therefore more water is needed for crops etc. As population continues to rise, the demand for water will also increases. Beginning of industrialization, significant growth in population, agriculture, and industry have increased water use and challenged water and environmental management. In many parts of the world, human water use has exceeded available renewable water supply. Development and growth not only increases human water use, but also increases greenhouse gas emissions that, in the long run alter precipitation patterns. Water stress caused or intensified by human activities, including increased demand, outdated water management, climate change from anthropogenic greenhouse gas emissions, growing energy and food production, intensive irrigation, diminished supplies, and land use change.

Soil degradation occurs when protective plant cover especially forests are lost exposing the soil. *Intensive farming* which involves deep ploughing and use of chemicals that destroy soil structure, is another widespread cause. Loss of cover or structure reduces capacity of the soil to absorb and hold water and results in run off and decreases the time available for water to seep into deeper layers of the soil. So soils dry up quickly and cannot support growth of plants and crops and in the short term lead to agricultural droughts. The impacts of this is greater in regions where 95% of agriculture depends on this soil moisture for agriculture. When there is more

runoff, and less infiltration and percolation of rain water into the soils, there is less groundwater that is added, that leads to longer term hydrological drought.

A definitive standard for the starting point and ending point of a drought has not been established. However, the incidence of a drought becomes clear as the effects begin to take shape.

Methods to avoid drought.

The containment and mitigation of the crippling impact of drought, and the eventual attainment of the objective of drought proofing of an area is contingent upon a proactive and relentless, but planned pursuit of a combination of structural or physical and non-structural long and short term measures. The short term measures are mostly reactive or relief centric in nature and mostly relate to in-season drought management through contingency planning and relief distribution. Long term mitigation measures are geared towards the adaptation to climate change, restoration of ecological balance through adoption of sustainable agronomic and conservation practices, sensible crop choices etc. Most of these measures are translated on the ground through soil and water conservation, watershed management, agronomic practices suited to rain fed agriculture and forestry programmes that seek to integrate soil, water and forestry management in an ecological compliant and sustainable manner. Drought mitigation needs to be ensconced in the regular development programmes of the Centre and State Governments. Some of the most significant current national programmes that may

have a decisive bearing on drought mitigation are Pradhan Mantri Krishi Sinchayee Yojna, National Rain fed Area Development Programme, National Rural Drinking Water Programme etc. Many of these programmes can be guided towards the development of a cogent drought mitigation strategy at the State level by taking advantage of the flexibility which has been in-built into the centrally sponsored schemes for the purposes of mitigation of calamities like drought.

Water harvesting and conservation refer to processes and structures of rainfall and run- off collection from large catchments area and channelling them for human consumption. In India, these processes and structures have been in existence since antiquity, but the increasing frequency and severity of droughts and population growth have focused on the revival of these practices and structures. Every household's minimum water requirements can be easily met by collecting rainwater locally from village / community ponds / large man made containers, by diverting and storing water from local streams / springs and by tapping sub-surface water below river / stream beds. There are two methods for water conservation: (i) artificial recharge of groundwater, and (ii) traditional methods. While the artificial recharge of groundwater is used extensively in all the watershed development programmes being implemented, traditional methods of water collection and harvesting through ponds / tanks are even more important for assuring continuous and reliable access to water. Both methods include measures which are low-cost, community-oriented and environment-friendly. These methods are considered very useful for groundwater recharge both when rainfall is deficient and when there are

flash floods. Harvesting and conservation of floodwater to rejuvenate depleted high-capacity aquifers by adopting integrated groundwater recharge techniques, such as dams, tanks, anicuts, percolation tanks, could improve water availability and create a water buffer for dealing with successive drought.

Rainwater harvesting involves the collection, storage and distribution of rainwater from the roof, for use inside and outside the home or business. In most urban centres, rainwater harvesting has become necessary to address the acute water scarcity, which they experience and the flooding during short spells of heavy rainfall. Most of the rain falling on the surface tends to flow away rapidly leaving very little for recharge of groundwater. Capturing the run-off is therefore an important solution to the worsening urban water situation. Rainwater harvesting has several benefits. It helps in utilizing the primary source of water, and prevents the run-off from going into sewers or storm drains, thereby reducing the load on treatment plants. It also reduces urban flooding and by recharging water into the aquifers, helps in improving the quality of existing groundwater through dilution.

Encouraging adoption of water-saving technologies, such as sprinkler and drip irrigation systems, through provision of subsidies to the farmers on the purchase of these systems. These technologies are recommended for achieving higher irrigation efficiencies and could be used for very small-sized holdings. While sprinklers require energized pump sets, micro-tube drips can work under a very low pressure head, with as little as a bucket full of water. Sprinklers tend to irrigate more uniformly than gravity systems and therefore efficiencies typically average about

70%. But in windy and dry areas much water can be lost due to evaporation in this system. The sprinkler system is particularly effective in sandy undulating terrain. For fruits, vegetables and orchard crops, drip irrigation is more suitable. These systems require much less maintenance when compared with the conventional pressurized irrigation systems. The ease of maintenance is more significant in micro tube drip systems. However, the adoption of these technologies by poor farmers would depend heavily on the supply of information, materials and services for installation.

It is necessary to adopt farm practices which can progressively reduce the water requirement of existing crops and improve primary productivity of the cultivated land. Such practices are particularly important for semi-arid regions which have already taken to intensive farming with irrigation water, both from canals and aquifers. These practices include the increased use of organic manure with the gradual reduction of chemical fertilizers, vermin-culture and agronomic practices, such as mulching, crop rotation and the use of bio-pest control measures. Organic manure can help regain structure and texture of soils and enhance their moisture retention capacity along with improving soil nutrients. Use of farm management practices, such as mulching, can reduce evaporation from the soil surface, thereby increasing the efficiency of irrigation water utilization.

A long-term strategy is required for managing water resources through irrigation projects. It consists of several measures which would expand the area

under irrigation and reduce the incidence of drought. All need to develop policies and procedures for utilization of irrigation resources.

Afforestation is well-known that the development of forests in areas, which are susceptible to periodic recurrence of drought, is indeed a very effective drought-resistant measure. Areas which are devoid of tree growth suffer serious erosion and need to be covered

with vegetation in the shortest possible time with a view to mitigate drought conditions. Drought-affected areas have vast expanses devoid of vegetation, depleted of tree growth and exposed parent rocks and boulders. The accelerated run-off in these areas is so large that all the surrounding agricultural land cannot even support marginal or subsistence agriculture. To remedy this, vegetation on hill slopes, catchments and other vulnerable areas need to be undertaken, particularly where rainfall is low. Plantation and green cover may be encouraged to help check soil erosion and the use of organic compost and bio-degradable mulching will enable the absorption and retainment of minerals for long time thereby reducing the risk of leaching. Trees and vegetation not only protect the soil, improve its water holding capacity, minimize run-off, regulate drainage (both surface and underground), but also preserve and improve the productive capacity of the soil and fertility of agricultural land in the vicinity. The foliage produced any effective vegetation, whether trees, shrubs, bushes or even well-pastured grass, forms a

sheltering shield or canopy which breaks down the intensity of torrential rain and thus reduces its erosive action on the soil. Furthermore, when this water with reduced velocity reaches down, it does not flow down to the rivers but is absorbed due to the vegetation and helps recharge ground and surface water resulting in the creation of perennial rather than seasonal storage in the reservoirs. Therefore, multi-tier plantation of grasses, bushes, shrubs and trees of local multi-purpose varieties should be promoted as these are more tolerant to temperature / climatic conditions. Before the afforestation programme is taken up, a thorough inspection and classification of the areas needs to be conducted. In drought-prone areas, planting of drought-resistant varieties of trees should be considered.

Community participation is an essential feature of drought mitigation programmes. Let us work together for the better of our earth.

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ENVIRONMENTALISTS AND THEIR ROLE IN THE PROTECTION OF NATURE IN INDIA

Field Project Submitted to the Department of English All Saints' College

2020-2021

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ENVIRONMENTALISTS AND THEIR ROLE IN PROTECTION OF NATURE IN INDIA

An Environmentalist can be defined as an individual who “advocates or works to protect air, water, animals, plants, and other natural resources from pollution or its effects.” The term ‘Environmentalism’ can be defined as an ethical and political movement aims at improving and protecting natural environment quality by first changing environmentally harmful activities, second by adopting social, political and economic forms of organization that are necessary or conducive to the benign treatment of the environment and third by reassessing the human-nature relationship. Environmental movements can be broadly classified into two categories. The first is the anthropocentric approach or the ‘human-centered’ approach wherein one is primarily concerned with the negative impact of environmental degradation on various aspects of human life. This is referred to as the ‘shallow ecology’ approach. The second category is termed as the biocentric approach or the ‘life centered’ approach wherein it is believed that the environment carries with itself a certain intrinsic worth that obligates human beings to take care of it. As a result, all individuals and elements from the natural environment form a unified ecological community. This is termed as the ‘deep ecology’ approach.

Environmentalists in India have contributed significantly to bringing about certain changes that have facilitated the process of environmental protection, enhanced the quality of the environment, and culminated in the improvement of human-nature relations. The following are the Environmentalists of India and their significant contributions for the protection of nature in India.

1. JADAV PAYANG

Jadav Payeng also known as the '**forest man of India,**' Jadav Payeng comes from the state of Assam. His contribution as an environmentalist entails creating a 550 hectare long man-made forest all by himself. The forest of Muali Reserve lies in the Majuli Island, on Brahmaputra River in Assam. It has a total area of 1000 hectares and faces the threat of extensive soil erosion. Majuli shrunk to about

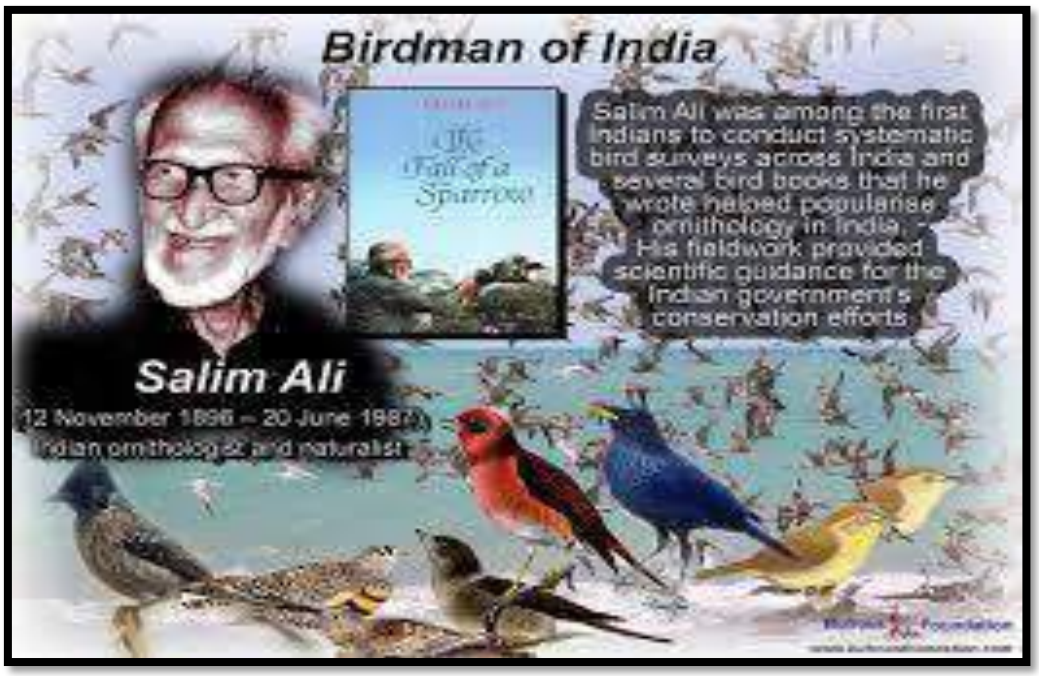
more than half of its size in the past 70 years and faced the possibility of being submerged. To prevent this submergence, the Golaghat District Forestry Division began planting 200 hectares of the forest in the sandbars of the Brahmaputra in 1980. However, at the beginning of 1983, this program was abandoned by the authorities. Jadev Payeng stepped in at that moment and spent 30 years of his life trying to restore the forest. He started by planting bamboo and some other plant species which resulted in the restoration of that area. At present the forest encompasses 1360 hectares of area and a variety of wildlife.

2. SUMAIRA ABDULALI

Sumaira Abdulali was born into a family of environmentalists and has been working towards environmental protection since 2002. For more than a decade, she has contributed extensively to two issues that impact the environment, sand mining and noise pollution. Her NGO, Awaaz Foundation played a crucial role in implementing silence zones and safe zone limits during festivals and also dealing with the issue of sand drudging which severely impacts the bio-system. She faced several threats from mafias and big politicians, however, her will and

deter enabled her to remain focussed on serving the environment and directing all her energies to bring about a change in the society.

3. SALIM ALI



Salim Ali also known as the '**Birdman of India**'. Ali was a naturalist and ornithologist. His contribution as an environmentalist encompassed conducting systematic surveys of birds in India. He also played a significant role in the creation of Bharatpur Bird Sanctuary and the protection of the Silent Valley National Park. His autobiography, 'Fall of a sparrow' has received wide acclaim and has been recommended to all individuals who consider themselves to be nature enthusiasts. For 50 years, he played a key role in modeling and shaping India's environmental policies.

4. RAJENDRA SINGH

Also known as the '**waterman of India**,' Rajendra Singh has worked towards the goal of efficient water management and harvesting. For over three decades, Singh has worked towards the rejuvenation and revival of water bodies in India. He is also known to be highly critical of the lax in the attitude of various government bodies and their pessimism towards water body revival. He has revived over 12 water bodies by constructing 11800 water structures in the regions of Karnataka, Rajasthan, and Maharashtra. This has helped in the recharging of aquifers. His work and contribution to the environment have won him the Magsaysay in 2001 and the Stockholm Water Prize in 2015.

5. MEDHA PATKAR

Medha Patkar is one of the most famous environmentalists in India since she initiated the '**Narmada Bachao Aandolan'** and her work has played an instrumental role in changing the Indian environmental processes. Her dedication to protecting the livelihood of several families that were being displaced by the creation of the Narmada dam has led her to win the '**Right to Livelihood'** Reward.

6. SAALUMARADA THIMMAKKA

Saalumarada Thimmakka also known as '**Aalada Marada Timmakka'**, is an Indian environmentalist from the state of Karnataka, noted for her work in planting and tending to 385 banyan trees along a four-kilometre stretch of highway between Hulikal and Kudur. She has also planted nearly 8000 other trees. With the support of her husband, she found solace in planting trees. She received no formal education and worked as a casual labourer in a nearby quarry. Her work has been honoured with the National Citizen's Award of India. Her work was recognised by the Government of India and she was conferred with **Padma Shri** in 2019.

7. MARIMUTHU YOGANATHAN

Also known as ‘**Tree man of India**,’ Yoganathan is a Coimbatore bus driver who has planted around three lakhs saplings over the past 30 years. He has contributed over 40% of his salary to contribute to the purpose of protecting the environment. Due to his efforts, the Tamil government has given him the title of “**Suttru Suzhal Sevai Veerar**” or the “**Eco-Warrior**.”

CONCLUSION

Apart from the environmentalists listed in this paper, there are plenty of other individuals who have played a key role in the environmental protection of India. The contribution of not only Indian environmentalists but all of those across the world serves as an inspiration to become more aware of the harm being caused to the environment due to human activities. With several environmentalists working

towards the cause of the environment, we must play our role in conserving the environment and augmenting their efforts. Our contribution towards the environment should not just be limited to academics and study of environmental concepts, it should go beyond the textbook and manifest itself in the ground reality. We must employ active action and voice our opinions to protect our environment.

Overpopulation and its impact on the world

Field Project Submitted to the Department
of English All Saints' College
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Over Population and its Impact on The Planet

Population

A population is defined as a group of individuals of the same species living and interbreeding within a given area . T he impact of so many humans on the environment takes two major forms : consumption of resources such as land, food, water, air, fossil fuels and minerals, wast-product as a result of consumption such as air and water pollution, toxic materials and green house gases. More people require more resources which means that as the population increases the Earth's resources deplete more rapidly. The result of this depletion is deforestation and loss of bio – diversity as humans strip the Earth of resources to accommodate rising population number.

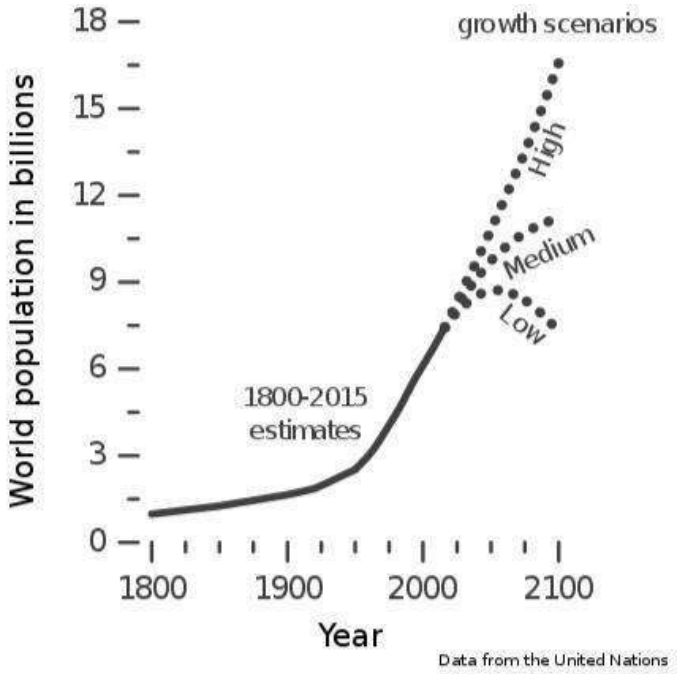
Conversations about overpopulation can quickly become controversial because they beg the question :- Who exactly is the cause of the problem and What, if anything should be done about it? Many population experts worry discussions around over population will be abused by small -minded people to suggest some are the "right people" to be on the planet (like themselves), and some people are (usually people in poverty, people of color, foreigners, and so on - you get the drift) But these are no "right" or "wrong" people on the planet, and discussing the problems of global overpopulation can never be an excuse, or in any way provide a plate form, for having that type of conversation.

Each human being has a legitimate claim on a sufficient and fair amount of Earths resources. But with a population approaching 8 billion, even if everyone adopted a relatively low material standard of living like the one currently found in "Papua New Guinea", it would still push Earth to its ecological breaking point. Unfortunately ,the "average person" on Earth consume at a rate over 50% above a sustainable level. Incredibly, the average person in the United States uses almost five times more than the sustainable yield of the planet.

When we use the term "Overpopulation" we specifically mean a situation in which the Earth cannot regenerate the resources used by the world's population each year. Experts say this has been the case every year since 1970, with each successive year becoming more and more damaging. To help temper this wildly unsustainable situation , we need to understand What's contributing to overpopulation and overconsumption and how these trends are affecting everything from elimate change to sociopolitical unrest.

Human Overpopulation

It is the concept of a human population becoming too large to be sustained by it's environment in the context of world population, though it may also concern regions. Human population growth has increased in recent centuries due to medical advancements and improved agricultural productivity. Those concerned by this trend argue that it results in a level of resource consumption which exceeds the environment carrying capacity , leading to population overshoot. The concept is often discussed in relation to other population concerns such as well demographic push and depopulation, as well as in relation to resource depletion and the human impact on the environment.



Different projections of the future human world population

The Overpopulation follow a similar line of inquiry as Malthusianism and it's Malthusian catastrophe, a hypothetical event where population exceeds agricultural capacity, causing famine or war over resources resulting in poverty and depopulation.

The Causes Of Overpopulation

Today the Earth is home to more than 7.8billion people. By 2100 the population is on track to hit 10.8 billion, according to the United Nations – and that's assuming steady fertility decline in many

countries. Interestingly if extra progress is made in women's reproductive self -determination, and fertility falls more than the United Nations assumes is likely, the population in 2100 might be a relatively smaller 7.3 billion. For now, the world's population is still increasing in huge annual increments (about 80 million per year), and our supply of vital non-renewable resources are being exhausted. Many factors contribute to these unsustainable trends, including falling mortality rates, underutilized contraception , and a lack of education for girls.

- Falling Mortality Rate

The primary (and perhaps most obvious) cause of population growth is an imbalance between births and deaths. The Infant mortality rate has decreased globally, with 4.1 million infant deaths in 2017 compared to 8.8 million in 1990, according to the World Health Organization (WHO). At the same time, life spans are increasing around the world. Those of us who are alive today will likely live much longer than most of our ancestors. Global average life expectancy has more than doubled since 1900, the advancement in medicine technology, and general hygiene. Falling mortality rates are certainly nothing to complain about either, but widespread longevity does contribute to the mathematics of increasing population number.

- Migration And Urban Concern

In certain countries the impact of migration and accumulation of the population in cities was very important, but not only with respect to demographic growth, but also in relation to wealth generation. Currently over half the global population live in cities of more than 300,00 inhabitants and which are expected to continuing growing until they reach 70% of the population .

How Population Effect the earth

One of the largest environmental effect of human population growth is the problem of global warming . Some scientists fear that global warming will lead to rising sea levels and extreme weather conditions in the future. In order to support the growing population , forests are being destroyed at an alarming rate. More people require more resources, which means that as the population increases, that Earth's resources deplete more rapidly. The result of this depletion is deforestation and loss of bio – diversity as humans strip the Earth of resources to accommodate rising populations number.

- Underutilized Contraception

The global fertility rate fallen steadily over the years, down from an average of 5 children per women today, according to the UN population Division. Along with that promising trend , contraceptive use has slowly but steadily increased globally , rising from 54% in 1990 to 57.4% in 2015. Yet, on the whole, contraceptive use is still underutilized . For example, according to the WHO , an estimate 214 million women in developing countries, who want to avoid pregnancy are not using modern contraceptives. These women aren't using contraceptive for a variety reasons, including social norms or religious beliefs that discourage birth control, misconceptions about adverse side effect, and a lack of agency for women to take decisions around sex and family planning. An estimated 44% of pregnancies were unintended worldwide between 2010 – 2014. Getting more women the access and agency to utilize family planning methods could go a long way in flattening the population curve.

The Effect Of Overpopulation

It is only logical that an increase in the world's population will cause additional strains on resources. More people means an increased demand for food, water, housing, energy, healthcare, transportation and more. And all that consumption contributes to ecological degradation, increased conflicts and a higher risk of large scale disaster like pandemics.

- Ecological Degradation

An increase in population will inevitably create pressure leading to more deforestation, decreased biodiversity, and spike in pollution and emissions, which will exacerbate climate change ultimately, unless we take action to help minimize further population growth heading into the remainder of this century, many scientists, believe the additional stress on the planet will lead to ecological disruption and collapse so severe it threatens the viability of life on Earth as we know it. Each spike in the global population has a measurable impact on the planets health. According to estimates in a study by Wynes and Nicholas (2017), a family having on fewer child could reduce emissions by 58.6 tones Co2−equivalent per year in developed countries.

- Increased Conflicts

The scarcity brought about by environmental disruption and overpopulation has the potential to trigger an increase in violence and political unrest. We're already seeing wars fought over water, land, and energy resources in the Middle East and other regions, andthe turmoil is

likely to increase as the global populations grows even larger.

Causes & Consequence Of Overpopulation

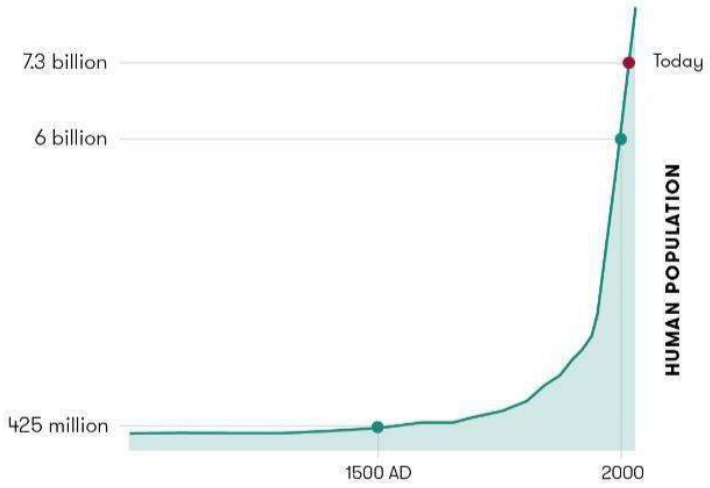
Fewer than 800 million people populated the earth in the mid 18th CE. Today, barely 250years later, we are more than 7.7 billion and will continue growing until 2050 by at least another 2billion. Taking into the account the fact that human beings appeared on Earth more than 4million years ago. The tipping point was generally accepted to be the Industrial Revolution, but there are many smaller revolutions that contributed to population take -off which have brought the planet to its current dangerous overpopulation:- revolutions that are medical, technological agricultural, financial , transport and demographical in nature away others.

Asia The Worlds Most Populous Continents

About 61% of the global population live in Asia, the worlds most populous continent. China alone is home to 1.44 billion people and India to 1.39 billion, accounting for 19% and 18% of the world's population respectively. Over populated areas face many challenges, most of which stem from the impact of climate change or human over exploitation of natural resources , but a recent study published by Nature communication points to rising sea levels , as one of the greatest dangers . According to this study, coastal areas currently inhabited by 300million people are set to experience annual flooding by 2050, unless measures are taken to hold back the water a figure three times higher than previous estimates. Asia is the area at largest risk of flooding due to climate change , due to its very low lying land and population of the 300 million people at risk 237 million live in six countries .

Our Growing Population

We humans are remarkable creatures . From our humble beginnings is small pocket of Africa, we have evolved over millennia to colonise almost every corner of our planet . We are clever, resilient and adaptable perhaps a little too adaptable. In 2015 the world population is more than 7.3billion people. That's more than seven billion three hundred million bodies that need to be fed , clothed, kept warm and ideally, nurtured and educated. More than 7.3billion individuals who, while busy consuming resources, are also producing vast quantities of water and our numbers continue grow. The United Nations estimates that the world population will reach 9.2billion by 2050. For most of our existence the human population has grown very slowly kept in check by disease, climate fluctuations and other social factors. It look until 1804 for us to reach 1billion people. Since then continuing improvement in nutrition , medicine and technology have seen our population increase rapidly.



Human population has seen exponential growth over the past few hundred years. Data source: Our World in Data.

Conclusion: In a nutshell, every kind of pollution leaves a huge negative impact on our environment, human lives, animals etc. We, as responsible citizens, must take steps towards a better tomorrow. A lot of innocent lives are put in danger due to pollution every day.

PLASTIC POLLUTION IN INDIA

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PLASTIC POLLUTION IN INDIA

INTRODUCTION

Plastic, once considered as a wonderful substance, has now become a dreaded substance to be avoided everywhere. Restrictions on the production and use of plastics have been enforced world – wide. In our country the use of plastics has been banned in a number of places. You also may be aware that steps have been taken to make hospitals, campuses, zoos and public places plastics free. This is because plastics do not undergo biodegradation like other substances.

The situations in which plastic materials become harmful

Leads to environmental pollution when discarded carelessly

Plastic never goes away

Plastic is a material made to last forever, yet 33 percent of all plastic – water bottles, bags and straws – are just once and thrown away. Plastic cannot biodegrade it breaks down into smaller and smaller pieces.

Plastic affects human health

Toxic chemicals leach out of plastic and are found in the blood and tissue of nearly all of us. Exposure to them is linked to cancers, birth defects, impaired immunity, endocrine disruption and other ailments.

Plastic spoils our groundwater

There are thousands of landfills in the United States. Buried beneath each one of them, toxic chemicals from plastics drain out and seep into groundwater, flowing downstream into lakes and rivers.

Plastic attracts other pollutants

Chemicals in plastic which gave them their rigidity or flexibility (flame retardants, bisphenols, phthalates and other harmful chemicals) are oily poisons that repel water and stick to petroleum – based objects like plastic debris. So, the toxic chemicals that leach out of plastics can accumulate on other plastics. This is a serious concern with increasing amounts of plastic debris accumulating in the world's oceans.

Plastic threatens wildlife

Wildlife become entangled in plastic, they eat it or mistake it for food and feed it to their young, and it is found littered in even extremely remote areas of the Earth. In our oceans alone, plastic debris outweighs zooplankton by a ratio of 36 -to -1.

Plastic piles up in the environment.

Americans discard more than 30 million tons of plastic a year. Only 8 percent gets recycled. The rest ends up in landfills, is burned or becomes litter.

Plastic poisons our food chain

- Even plankton, the tiniest creatures in our oceans, are eating microplastics and absorbing their hazardous chemicals. The tiny, broken down pieces of

plastic are displacing the algae needed to sustain larger sea life who feed on them.

- Plastic costs billion to abate
- Everything suffers: tourism, recreation, business, the health of humans, animals, fish and birds – because of plastic pollution. The financial damage continuously being inflicted in inestimable.

Thermoplastic and thermosetting plastic

Plastics can be classified into two types based on the changes that occur while heating. The plastic that gets softened on heating and hardened on cooling is thermoplastic. This process can be repeated any number of times.

The plastic which remains soft when heated during its manufacture, and gets hardened permanently on cooling is thermosetting plastic.

Can plastics be banned completely?

The convenience and utility of plastic makes virtually impossible to realistically ban the stuff.

The role played by the plastic in forest conservation, Household utility, Health, Construction work is very important the uses of plastic as well as the issues raised is “plastic – a boon or a curse “.

Measures can be proposed to reduce pollution due to plastics

Avoid disposable plastic products

During functions, use glass /ceramic /steel utensils or natural substances

Use paper, cloth and plant materials, instead of plastic for decorations.

Let us practise the 4R's to reduce the use of plastics to the maximum extent as well as to avoid the pollution caused by plastics

What are the 4R's?

Reduce – plastics

Reuse – plastics

Refuse – plastics

Recycle – plastics

Carry Reusable Shopping Bags

Drink Your coffee From a Reusable cup

Avoid Bottled water

Switch to plastic – Free chewing Gum

Shop at a Farmers Market

Swap out Bottles for Bars

Avoid Buying clothes Made with plastic

Compost Food Waste

Stop smoking – or At Least Use a Refillable Lighter

We must take major steps to prevent it. We must use alternatives like cloth bags and paper bags instead of plastic bags instead of plastic bags. If we are purchasing plastic, we must reuse it. We must avoid drinking bottled water which contributes largely to plastic pollution. Plastic is a very convenient and useful material in our day – to day life and daily chores. It is used widely by people all across the globe owing to its versatile uses. However, it does have a lot of cons. One of the worst disadvantages of plastic is that it contains toxic substances. It causes pollution in nature it us also responsible for deaths of birds and marine animals. Plastic has found its use in every sector of the economy – beginning from supermarkets to households. It is user – friendly and is in use for almost any purpose. It is because it is cheap and serves as a lot of applications. It also has the edge over alternatives such as cloth or paper due to its re -usability. It is very appropriate for use it can also be moulded into shapes as per one's requirements.

On the one hand, these are the pros of plastic. On the other hand, plastic is a non – biodegradable material that is, it cannot be dissolved or burnt out it can only be dumped – this means that it remains on the surface of the earth for ever it is not destructible. Owing to this non – biodegradable property of plastic, it is one of the most dangerous pollutants in nature.

Plastic pollution is spreading through the environment like wildfire. It has many adverse effects upon the lives of human beings, animals and plants alike. We need to collectively fight it and try to be as careful as possible.

Every year, across the world, tons of plastic and plastic materials are dumped into rivers, lakes and ocean waters. Plastic is undissolvable. It does not dissolve in the water it either keeps afloat or settles down on the surface. This way, the water gets Polluted to a great extent.

Just like in water bodies, a million tonnes of plastic are dumped on land as well. Plastic has many harmful and toxic effects. We tend to discard the wasted and used plastic materials in pits, landfills etc. The soil gets contaminated, in turn the fertility is affected to a great extend.

- Furthermore, the plastic dumped acts as the breeding and gathering ground for various disease – carrying insects. The health of the people around gets affected.

Burning of plastic in the open air, leads to environmental pollution due to the release of poisonous chemicals. The polluted air when inhaled by humans and animals effect their health and can cause respiratory problems.

For a long time, plastic bags were used as a free and painless solution for carrying your weekly supermarket shop and for a range of other purposes.

It ‘s only recently that the damaging effects have been realised and so a 5-p fee has been introduced since 2015 to discourage people from buying bags.

So why are plastic bags bad for the environment? Plastic bags are made from crude oil like other plastics. This is a problem because crude oil emits significant amounts of pollution and it means the product is not biodegradable. According to the Natural Environment Website it takes at least 400 years for a bag to biodegradable which has the following effects:

Natural Environment estimates that approximately 100,000 sea turtles and other marine animals die every year because they get strangled in bags or mistake them or food.

In Australia, 50 million garbage bags end up as little yearly, and the “plastic soup “patch in the Pacific Ocean (twice the size of the continental United States) is roughly 80% of the ocean.

- A lot of people think that paper bags are a good alternative, but unfortunately, this isn't true as they still negatively affect the environment.
- The best alternative to plastic bags is reusable bags, which save 11 barrels of oil. At Non-plastic Beach, we feel we do our bit to discourage plastic bag usage, by offering our customers organic cotton, reusable shopping bags.
- Progress has been made to reduce plastic usage since the introduction of fees in supermarkets. But, abroad there have been campaigns to ban plastic bags.

- Several African countries, include Kenya, have banned plastic bags entirely. In Mauritius, they only use a dissolvable com starch plastic bag in the supermarkets, even away from the tourist areas.
- Despite the fact that trap water is declared safe for consumption by the EPA, 1500 plastic water bottles are being used every second in the United States alone.
- Where possible, it ‘s best to avoid using plastic and to recycle as a last resort. By using reusable alternatives you don't have to recycle
- While plastic has many valuable uses, we have become addicted to single use or disposable plastic – with Severe environmental consequences. Around the world, one million plastic drinking bottles are purchased every minute, while 5 trillion single -use plastic bags are used world wide every year. In total, half of all plastic produced is designed to be used only once – and then thrown away. Plastic waste is now so ubiquitous in the natural environment that scientists have even suggested that it could serve as a geological indicator of the Anthropocene era.
- Bibliography
- One of the EREF ‘s goals is to serve as a Solid waste research virtual library for the benefit of the public and Solid waste research cited in this section

that has been sponsored by both the EREF and other entities. This library will be continually updated.

QUALITIY OF NEWS CHANNELS AND ITS ENTERTAINMENT VALUE

Field Project Submitted to the Department of English All Saints' College 2020-2021

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QUALITY OF NEWS CHANNELS AND ITS

ENTERTAINMENT VALUE

INTRODUCTION

News channels are usually a main part of TV entertainment and there is no person who loves to watch TV can say that he never watches news. Also a person who lives in this world has to do something regarding gaining latest knowledge in miscellaneous fields. News is very important in any field as they make us aware of latest trends, changes and the conditions of the world .News helps to open up your mind to new things and ideas.

BODY

News channels are usually a main part of Tv entertainment. News channels offer the ultimate in convenience. Viewers can easily flick over to a News channels and catch up with the latest happenings, which is very easy with the regular News summaries which are shown at least twice an hour. As News channels tend to broadcast 24 hours a day, they have the opportunity to look at various stories in the media in considerable depth. All in all, News channels illuminate viewers about what is going on in the world and raise awareness when it may be important to do so. News makes you a witness to important events in real time .There are several national and local news channels which run 24*7 and updates about the happenings around the world in blink of an eye.

Distance isn’t a barrier anymore and this is possible just because of the media sector. People get to know about the day to day Practical learning through media enhances children’s knowledge and keeps up their interest in learning even for the subjects they dislike. They can watch lessons in media platforms like YouTube, participate in quiz programs, can learn through history channels, animal programs and so on. Although media has many advantages, it has some limitations too. But if used wisely and carefully, it is of great use and it’s all up to the users. Media removes the barrier of distance between people and made it more convenient to communicate, learn, work and do everything they want, where so ever they are. By reading the newspaper or watching the news daily, you have a better understanding of what is happening all over the world. All around you there’s a diversity of people. It's important to learn about different backgrounds and what is happening in other communities. This allows you to rid your mind or the minds around you of cultural stereotypes people often have. News channels provide huge information all over the world. The informative news increase our knowledge regarding specific topic. The news keeps you updated and provides important educational value. At the time of natural or human-made disaster and calamities, the government take help of the media to aware people of the safety measures and help the affected through funds collected. Often these fund-raising programs are done through the media itself. The news channels can frame the laws according to the current needs of the people. In this way the best options can be implemented and common man

will be benefitted from this. Writers who write articles in newspapers, magazines and weeklies are benefitted from news channels as they get new and great topics to write their articles. Latest issues that have been shown in the news channels can be taken by them as topics for discussion. They can also send their topics to news channel for on-air discussions.

If you get stress, one of the best treatments is to get a worthy. Entertainment is one of the best distractions you can get. When you get quality entertainment, your mind thinks of other things, and releases endorphins, hormones that are responsible for feeling good. This is a better way to deal with stress, as it gives you some time off to relax and prepare your mind for recovery. The news channels not only make you aware of the change in rules, policies, and laws, but it also serves as the entertainment source. The news channels also help you to provide the information related to the latest movies and their reviews. Not only the latest movies, but it also helps you to know the upcoming films. You can also get Bollywood news through various news channels. If you have a habit of watching the news, then you can easily get updated with the latest information, which further helps you to increase your knowledge. The news channels help to get knowledge of current affairs, which also helps to improve your IQ level. With the knowledge of the latest information, you can get ahead of others in debates and various competitions. In order to reach a large number of people, it is necessary to take the help of some medium, therefore to solve their problem,

the news channels are made. Now with the help of these channels, the information can be passed to a large number of people. The government makes some changes in the rules and laws according to the current situation of the country, to make the people aware of thes4e changes the government make use of news channels. These newschannels not only help to make people aware of the changes in these rules and laws, but it also helps to explain the benefits these changes will serve. The news channel helps to explain each information in detail. Sometimes there is some new policy launched by the government to avail the benefits of these policies, and it is necessary to understand these policies. Therefore, the newschannel helps to explain these policies so that the people can make its use whenever it is necessary. All sources of news are widely used. You can easily get connected to the world with the help of various news channels. Once you start watching the news, you will automatically see a massive change in yourself. By watching the news regularly, you can easily decide what is best for your society. You will also get familiar with specific issues of the society, so with the help of news channels, you can get detailed information on these issues; depending on it, you can raise your voice. People also get chance to showcase their talent such as acting, dancing, singing, comedy, showcasing their arts and crafts, etc. These days especially the youngsters are attracted towards stand-up comedies and vines over the internet. It is also a great source of entertainment to others. One showcases their talent, the other enjoys them. Television programs, entertainment radio programs, and

other such media platform serves as good source of entertainment. People enjoy through music, TV programs, etc. It helps not to get bored. Television also allows electronic duplication of information, which reduces the production cost.

Media showcases different cultural practices and ideologies, which of course promote cultural-diffusion and portrays that how India has diversities yet Indians are united. There are social media websites and apps where the users can share their views, opinions and ideas, post pictures, share their timeline with others as well, they can message each other and most importantly meet each other virtually through video and voice conferences. Meeting relatives and gossip with friends is easier now. News channels provide a constant stream of news on regional and global events. Media in India is mostly self-regulated. The Indian media sector has registered an impressive growth in the last decades, even in the field of economy the Media Sector has played a major role especially when the world economy began to recover from the global financial crisis of 2008. The Media industry has also been driven by largely digitalization and higher internet usage over the previous years. Internet has become a mainstream media for entertainment and other such purposes for most of the people. These days the demand for regional print media is growing more than that of English language print media and the viewership of niche channels are preferably chosen over other channels. Work from home facilities are also a gift

of media, though which employees can perform their assigned tasks without going to the office or anywhere else. Important meetings can also be held with the help of media where one needs not to worry about being late to the venue; the only requirement is proper network connectivity. Media is one of the best ways to make people aware of every single bit of the any government and non-government programs and schemes, etc. It is also widely used for commercial purposes, that is, advertisement of products to a large public at once, either through television or newspaper ads or though posters, pamphlets, etc or through social media websites. Even professionals (doctors, lawyers, etc.) take the help of such advertisement methods to attract clients. Media is also good for research purposed, through various information sites one can do research work on subject of their interest, which is not only helpful for the researchers but for the readers too. Even this article has reached its reader through media only. Millions of viewers watch popular television shows or live events, like sports. Businessmen can watch the current status of market all around the world . News channels fulfill the students educational needs and can get huge amount of knowledge . Government workers can look the latest news related to government conditions , policies and changes . Social workers who voluntarily do the work can know their field with the help of news channels .

CONCLUSION

The conclusion can be drawn that news are really very important. Due to the increasing impacts of news media, news channels have got a new role to play as a helper of the society. With their good attempts and exact coverage of news, news channels can really help to bring out a change in the society. Indian media has to show some extra responsibility as there are now serious issues that are concerned with the nation.