International Journal of Advance and Innovative Research
Volume 9, Issue 3 (VII): July - September 2022
ISSN 2394 - 7780

IMPACT OF POPULATION GROWTH AND ANTHROPOGENIC ACTIVITIES IN INDIA

[1]Dr. Manish Madhav Deshmukh and [2]Ms. Mitali Sankhe
[1]Assistant Professor & Head and [2]Assistant Professor, Department of Commerce, Sonopant Dandekar Arts, V. S. Apte Commerce & M. H. Mehta Science College, Palghar

ABSTRACT
Burgeoning population growth has a significant impact on anthropogenic activities. Uncontrolled urbanization along with industrialization has caused destruction of natural habitats. The present paper is an attempt to study the impact of population growth on land, forest, water and energy resources. The analysis reveals that huge population growth rates are causing population density to rise thereby pushing people below the poverty line.

Excessive population growth contributes to land degradation, soil erosion which in turn affects overall productive resource base of the economy.

The rising population and growing affluence have resulted in excess demand for energy production and over utilization of resources in India.

The environmental side effects like ground water pollution, air pollution and global warming are the aftermaths of this excessive consumption. The paper concludes with policy analysis and emphasizes the need of energy conservation keeping sustainability as a crucial factor.

Keywords: Population, India, Sustainability, Environment and Degradation.

INTRODUCTION
The fundamental cause of environmental degradation can be attributed to burgeoning population growth of a country which affects the quality of natural resources and environment available for next generations. Sustainable development in India faces major threat due to the uprising population and callous attitude of general public towards consumption of natural resources. Changing consumption pattern has resulted in exceeding demand of energy resources. There is intense pressure on ground water, land, soil, natural habitat and biodiversity. Due to excessive urbanisation and industrialization, there is tremendous pressure on environment in India.

As per United Nations Report global population has almost tripled amounting to 8 billion people in 2022. China and India together contribute for roughly 36% of the world population. As of 2022 China amounts to 1.44 billion people and India amounts to 1.39 billion people. India is the second most populated country in the world and accounts for 17.5% of the world's total population on 2.4% of world's geographical area.

There has been a steady growth of population in India from 1950s onwards till 2022**.**

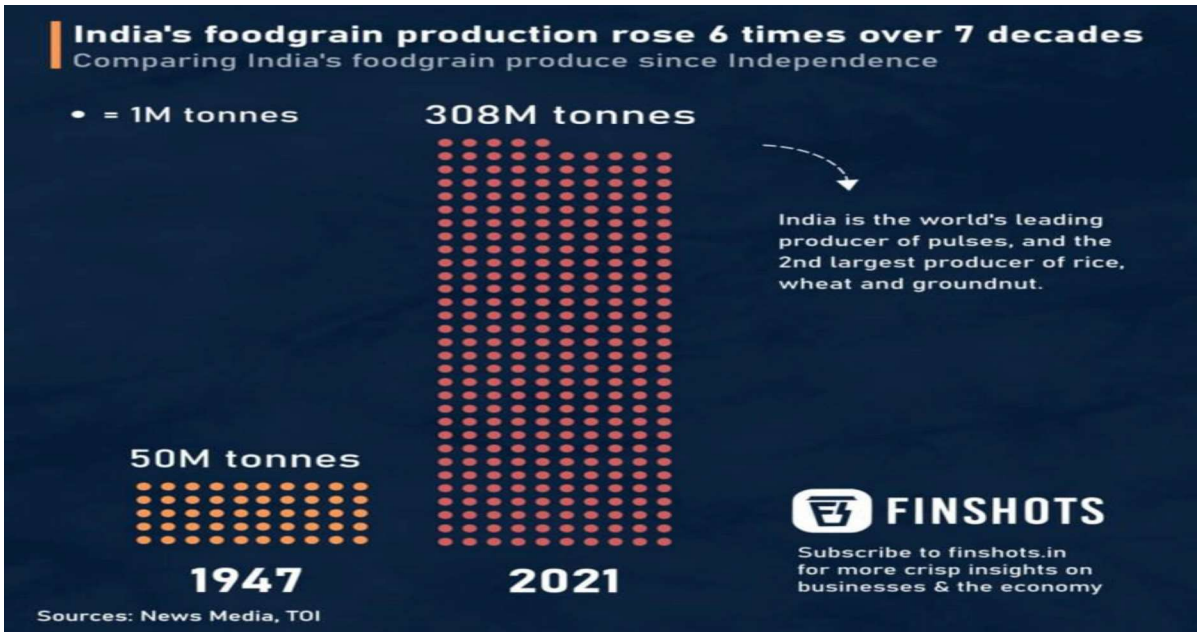
Source – World Bank Reports

ISSN 2394 - 7780

Growth of Population in India:

Census Year	Population (In Crores)	Decadal Growth (%)	Average Annual Exponential Growth (%)
1971	54.82	24.80	2.20
1981	68.33	24.66	2.22
1991	84.64	23.87	2.16
2001	102.87	21.54	1.97
2011	121.02	17.64	1.64

Source – Census 2011



Source – TOI

Rising population creates demand for food and energy thereby altering the land usage, cropping patterns and excessive ground water consumption. India's food production has increased 6 times over 7 decades. The pressure on environment intensifies significantly with rise in population. To add fuel to the fire India is plagued with the problem of poverty along with unequal distribution of resources which manifolds the problem of environmental degradation. A sustainable growth strategy in line with UN sustainable goals is need of the hour to tackle this double-edged sword of population growth and environmental degradation.

OBJECTIVES

1. To elucidate trend of population growth in India
2. To understand impact of population growth on natural resources
3. To analyse the impact of population growth and urbanization on natural ecosystem
4. To provide solutions keeping sustainability as a crucial factor

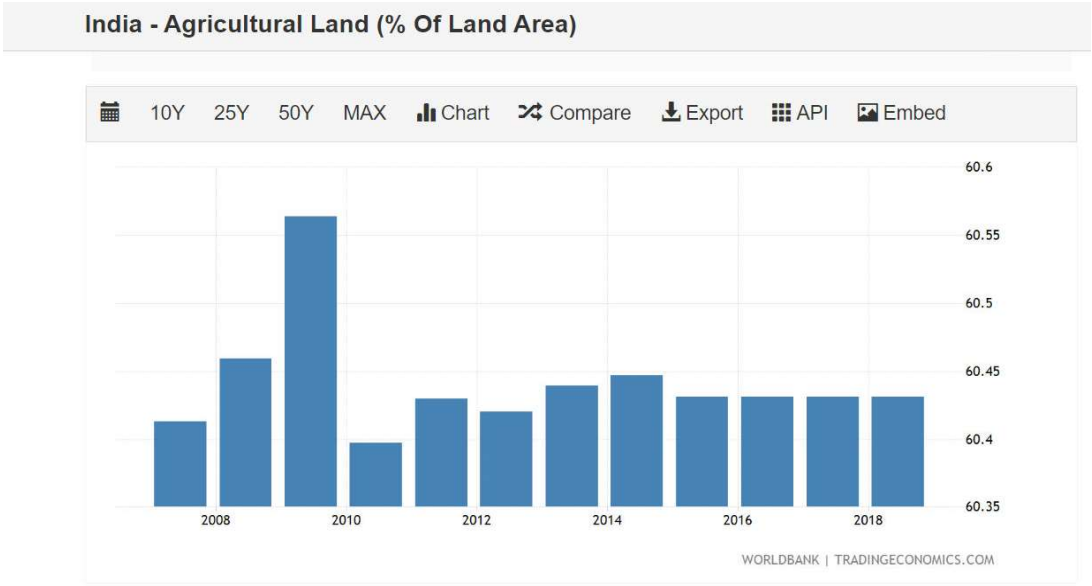
RESEARCH METHODOLOGY

The primary research area involves analysing the direct role of population growth on anthropogenic activities in India. The study is primarily based on secondary data derived from census reports, World Bank reports, United Nations reports and literature review of ecological journals, government ministries and websites.

ISSN 2394 - 7780

RESULTS AND DISCUSSION

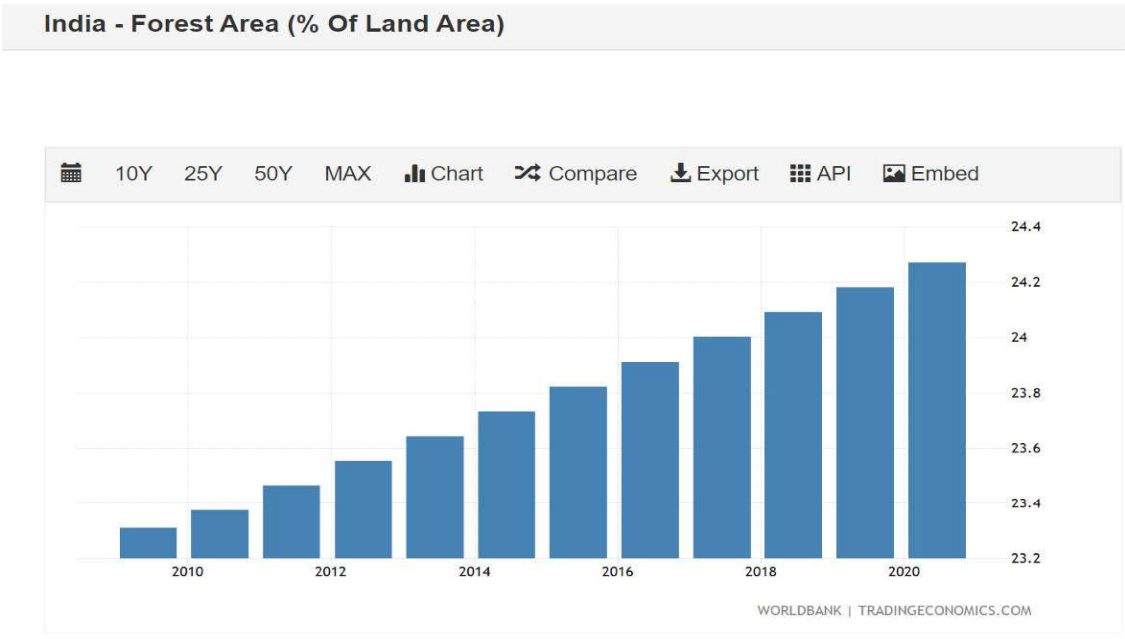
Impact of population growth on land in India



Source – World Bank Report

There is tremendous pressure on agriculture land in India. As per World Bank report in 2018 agriculture land in India amounts to 60.43% and one can notice a stagnation in land available for agricultural purposes. In order to offer food security for rising population farmers need higher yields thus causing excess increase in cropping, irrigation, over use of chemical fertilisers, insecticides and pesticides. This in turn causes exploitation of underground water resources. Excess use of chemical fertilisers contributes to water pollution.

Impact of population growth on forests in India

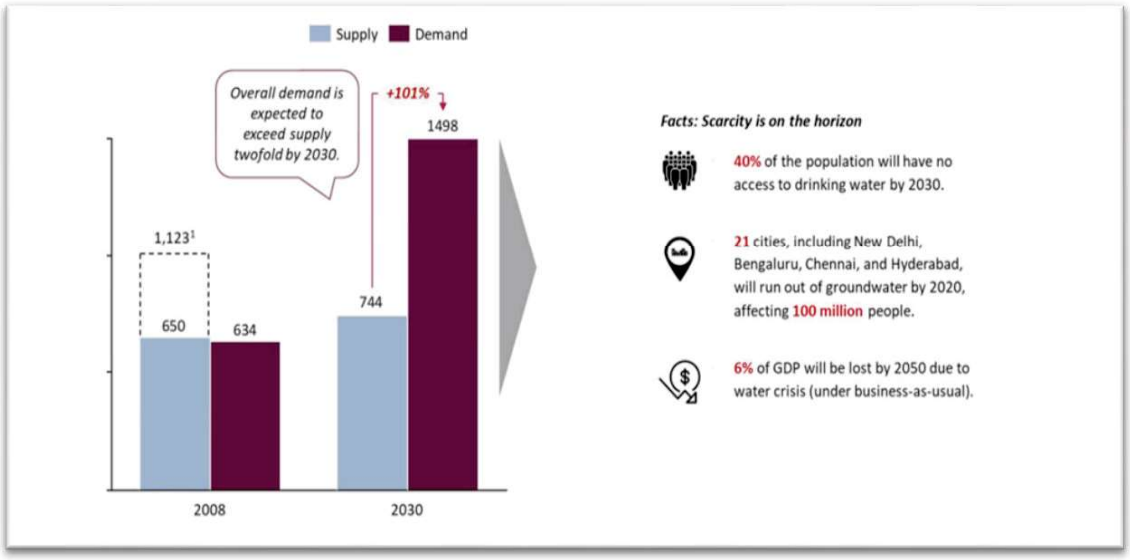


Source – World Bank Report

Forests play a pivotal role in maintaining environmental and ecological balance. **As per ISFR (India State of Forest Report 2021) total forest area amounts to 21.71% of the geographical area as against 33% as per national forest policy 1952 and 1988**. There **has been a decline in forest cover in comparison to the mandated 33%** due to population growth, economic development, industries, housing and lastly to meet the food requirements of a population.

ISSN 2394 - 7780

Impact of population growth on water resources

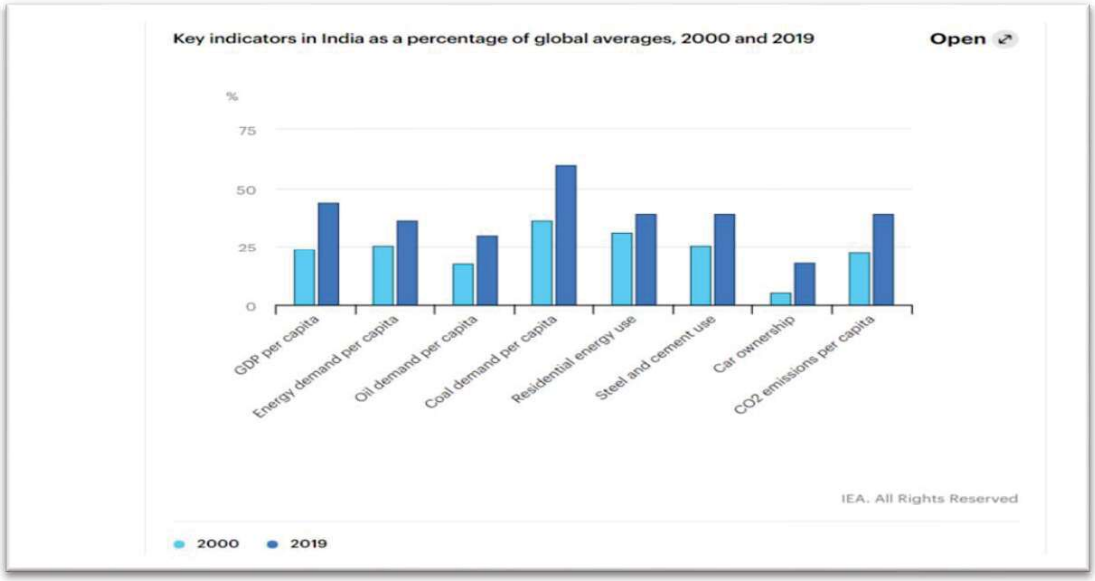


Source – Niti Ayog Report 2018

It is a fundamental human right and basic need to have access to safe drinking water and adequate sanitation facilities. As per World Bank reports India is among the most water stressed countries in the world. **In India in 1950 per person there was a water availability of 3000 to 4000 cubic meters of water. As of 2019 this has fallen to 1000 cubic meters of water per person. India is the largest user of ground water roughly pumping 25% entire ground water in the world**.

As per NITI Ayog report titled composite water management index (2018) there is heavy mismatch in the demand and supply of water resources. The demand for water resources is going to be twice the supply and **approximately 40 % of India's population will have no access to drinking water by 2030.**

Impact of population growth on energy resources



Source – India Energy Outlook report 2021

As per India Energy Outlook report 2021 the consumption of energy has doubled since 2000 to 2019. India's rising urbanisation and population growth will create need for huge energy demand. Most of commercial energy needs are achieved by burning fossil fuels which causes severe air population as it increases C02 in the atmosphere and respiratory diseases and greenhouse gases further contributing to global warming

ISSN 2394 - 7780

Solutions for sustainable population control in India

- Offer tax benefits to all non-government employees who take efforts to keep population in check by having two or less children
- People having two or less children and who are following population control measures should be motivated by offering increments, housing loan concessions and job promotions
- Government employees across all religions who follow two child norms should be given benefits under NPS, maternity benefits and increments
- A couple which has only one living child and by free will choses to get sterilized the government can incentivize by offering free higher education to such child and even employment post his education
- Encourage informed family planning by making contraception easily accessible for the vulnerable and poor sections of the society
- In order to reduce the total fertility rate, we need to improve our medical infrastructure
- As per United Nations DESA policy India's economy growth must be more than its population growth to ensure sustainable growth

CONCLUSION

The study concludes that India's population growth is adding burden on the country's limited natural resources. It is going to be a tough task for government to satisfy the needs of ever-increasing population as the energy consumption needs increase. There will be a huge pressure on the arable lands which in turn will affect the overall resource productivity. There is immense pressure on ground water resources to satisfy the human needs of water consumption and one can only expect the need to only keep escalating. One can conclude to sum up there is crucial need to control population growth, conserve and protect natural resources, look for eco-friendly energy resources and to keep environment healthy for future generations.

ACKNOWLEDGEMENTS

We would like to thank our college and colleagues for their valuable inputs, support and suggestions. We are grateful to Ruparel College for giving us the opportunity to work on such an interesting topic. I am grateful to my college librarian for providing me the resources for conducting my research.

REFERENCES

- https://www.un.org/development/desa/dpad/publication/un-desa-policy-brief-no-130-why-population-growth-matters-for-sustainable-development/. (n.d.).
- https://paa2007.princeton.edu/papers/7192. (n.d.).
- https://www.niti.gov.in/writereaddata/files/document_publication/2018-05-18-Water-index-Report_vS6B.pdf. (n.d.).
- https://tradingeconomics.com/india/forest-area-percent-of-land-area-wb-data.html. (n.d.).
- https://www.macrotrends.net/countries/IND/india/population-growth-rate. (n.d.).
- https://www.iea.org/reports/india-energy-outlook-2021/energy-in-india-today. (n.d.).
- https://www.worldbank.org/en/news/feature/2019/03/22/helping-india-manage-its-complex-water-resources. (n.d.).