

# IMPACTS OF GLOBALIZATION ON WATER RESOURCE IN INDIAN SUBCONTINENT

PRAVIN KUMAR<sup>1</sup>, DR. ASHOK KUMAR JHA<sup>2</sup>

1. Research Scholar, Deptt. of Geography, B.N.M.U. Madhepura, Bihar,

2. Associate Professor, Deptt. of Geography, SNSRKS College, Saharsa, Bihar.

## ABSTRACT

Water is essential for the presence and endurance of life on earth. With the headway of human advancement, water includes discovered inside the huge and logically expanding rundown of employments. Numerous countries which have a decent gauge of their oil and characteristic asset, scarcely know their water asset potential. In a nation like India, where the precipitation design is exceptionally factor and the majority of individuals relying on horticulture and associated exercises, the examination and arranging of water assets has turned into a significant parts for its turn of events.

The development of innovation and industrialization and turning into a danger to supportable advancement of human culture. In its latest yearly danger report, the World Economic Forum records water emergencies as the biggest worldwide danger as far as expected effect. As per the Composite Water Management Index (CWMI) report delivered by the Niti Aayog in 2018, 21 significant urban areas (Delhi, Bengaluru, Chennai, Hyderabad and others) are dashing to arrive at zero groundwater levels by 2020, influencing access for 100 million individuals. Be that as it may, 12 percent of India's populace is as of now living the 'Day Zero' situation, because of unnecessary groundwater siphoning, a wasteful and inefficient water the board framework and long stretches of insufficient downpours.

**KEYWORDS:-** Globalization, Assets, Environment, Irrigation, Threats, Water, Population, Clean, Mutability, Reusability.

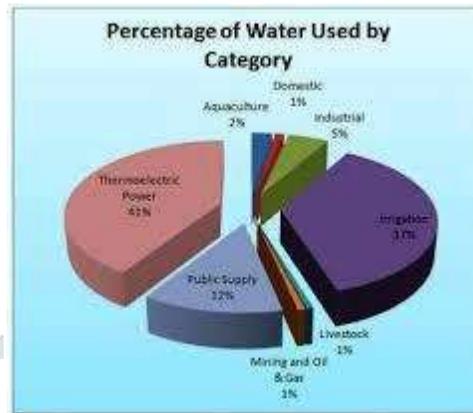
**Introduction :-**

**In** Topography, globalization is characterized as the arrangement of cycles that add to the connection among social orders and people the world over. It is a reformist cycle by which trades and streams between various pieces of the world are intensified. The spread of globalisation has been so rapid and comprehensive that its effects are being felt in the smallest and most remote human communities and natural areas in both developed and undeveloped countries. Without a doubt, the words 'created' and 'lacking' accept a heading and certainty of progress towards a uniform monetary condition that leaves no other options. By the by, it is imprudent to acknowledge the suspicion that globalization as a financial framework is digging in for the long haul, albeit a significant number of its more significant ecological results are likely to prove extremely long-lasting. Immense power always creates an impression of permanence, but a conjunction of formidable limiting factors is even now acting to curb and modify the process of globalisation-perhaps to end it altogether.

**The** economy of any country is resource based. Man has used his technical skills and knowledge in utilizing the resources in one way or the other. Resources, in general, are defined as features which are useful and needed by man. It can also be defined as anything from living and nonliving environment to satisfy the human needs and wants. Natural resources vary greatly in quantity, mutability and reusability in space and time. Our natural resources are hidden to us and no accurate estimate can be made of their actual quantity or amount. The very term, 'normal assets' discloses to us that solitary nature is their producer and what we burn-through is lost always with successive theory as the amount of these covered up assets are in fact, how much longer they can last or how many more people they can support.

**Water As Assets (Resources) for Living being :-**

**Water** is essential for the presence and endurance of life on earth. With the headway of human advancement, water includes discovered inside the huge and logically expanding rundown of employments. Numerous countries which have a decent gauge of their oil and characteristic asset, scarcely know their water asset potential. In a nation like India, where the precipitation design is exceptionally factor and the majority of individuals relying on horticulture and associated exercises, the examination and arranging of water assets has turned into a significant parts for its turn of events. The accompanying table shows the water assets utilized by the nation.



India is probably the wettest nation on the planet, with normal yearly precipitation of 1100m.m. There is, notwithstanding, no precise data about India's water assets. Agricultural nations are confronting truly expanding natural difficulties. Rising contamination, risky and progressively undermined water sources, consumption of characteristic assets, overpopulation, and garbage removal are only a couple models. These ecological variables are a main driver of death, infection, and inability, particularly among the helpless who straightforwardly rely upon the climate for their occupations. Dangers to consumable water is apparently one of the most basic ecological difficulties in creating economies, given its connects to wellbeing, instruction, and efficiency results. Dangerous water executes an expected 1.7 million individuals yearly, especially because of diarrheal infection. Added to this, groundwater—a non inexhaustible characteristic asset—has gone under danger in many creating economies.

The standard astuteness is that, on the off chance that agricultural nations put resources into naturally benevolent foundation and designing, at that point a considerable lot of these issues will be moderated. Notwithstanding, globalization factors and how they add to natural difficulties, for example, the load of consumable water are frequently disregarded. Indeed, probably the best factor influencing water access is universally incited: streamlined commerce and unfamiliar direct venture. As non-industrial nations battle to pull in capital and contend in global fare markets, they create creation rehearses that lead to quick wastewater creation and, simultaneously, increment water utilization.

### Importance of Water:

Water is needed in almost every sphere of human activity. It is required for direct consumption for washing, cleaning, cooling, waste disposal and transportation. Water is essential for the Irrigation, Industries, Livestock management, Thermal power generation, Domestic requirements, Hydro-electric generation, and various human activities. Estimation of fresh water requirements of various sectors: The amount of water in the world is finite. A third of the world's population lives in water-stressed countries now. By 2025, this is expected to rise to two-thirds. There is more than enough water available, in total, for

everyone's basic needs. The UN recommends that people need a minimum of 50 litres of water a day for drinking, washing, cooking and sanitation. In 1990, over a billion people did not have that. Providing universal access to that basic minimum worldwide by 2015 would take less than 1% of the amount of water we use today. But we are a long way from achieving that. India is one of the wettest countries in the world, with average annual rainfall of 1100m.m. There is, however, no accurate information about India's water resources.



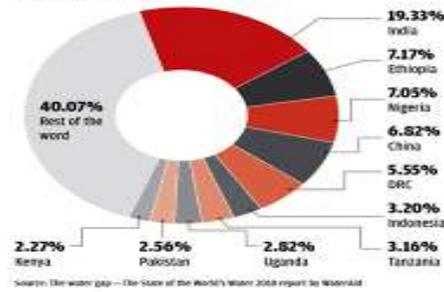
(Major Water Using State of India)

### Threats to India's Water Assets:

Water has become the most serious issue of the 21st century. The development of innovation and industrialization and turning into a danger to supportable advancement of human culture. In its latest yearly danger report, the World Economic Forum records water emergencies as the biggest worldwide danger as far as expected effect. As per the Composite Water Management Index (CWMI) report delivered by the Niti Aayog in 2018, 21 significant urban areas (Delhi, Bengaluru, Chennai, Hyderabad and others) are dashing to arrive at zero groundwater levels by 2020, influencing access for 100 million individuals. Be that as it may, 12 percent of India's populace is as of now living the 'Day Zero' situation, because of unnecessary groundwater siphoning, a wasteful and inefficient water the board framework and long stretches of insufficient downpours.

### Waterless countries

Just 10 countries account for 60% of the world population without access to clean water



(Global Water Availability)

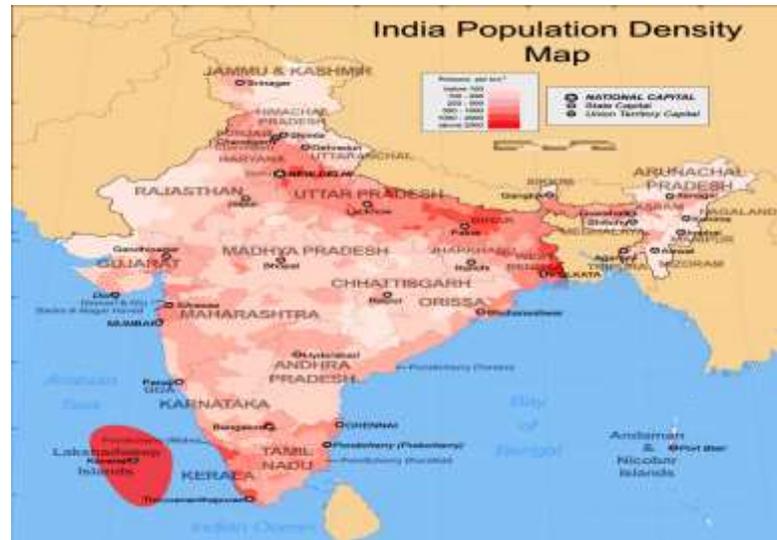
Global consumption of fresh water increased six fold from 1900 to 1995, at a rate greater than twice the rate of population growth. If the present trend continued, two out of every three people on earth will have to live in water stressed condition by the year 2025. About 25% of the world's population does not have access to safe drinking water, and 40% does not have sufficient water for adequate living and hygiene. More than 2.2 million people die each year from diseases related to contaminated drinking water and poor living conditions, faced with water scarcity. The per capita availability of fresh water in the country has dropped from an acceptable 5,180 cubic metres in 1951 to 1,820 cubic metre in 2001. It is estimated that it would drop to 1,340 by 2025 and 1,140 cubic metres by 2050. Not only a decrease of quantity, but also degradation of quality will result in water scarcity. The anthropogenic activities related to these two forms of scarcity can be defined as consumptive use and degenerative water use. International trade enables the consumptive water use to be transferred across national boundaries, known as virtual water trade.

There are following factors responsible for water crisis in india and in the world-----

#### Population Explosion:

Population growth is spurring a demographic change, especially as towns become cities and cities become metropolitan cities. Concerns on availability of fresh water have arisen, since India with 16% of world's population has only 2.5% of the world's land resources and 4% of the fresh water resources. Water is one of the most integral and important aspects of daily life for every human being, for example, food, clothing, and almost everything else humans interact with involves water. Therefore, water and water security is going to be a crucial focus for governments in the next few decades, especially since the population is expected to reach approximately 9.7 billion by the year 2050, and 11.2 billion by 2100 (United Nations DESA). Similar to oil and other fossil fuels, water is a finite resource, and the knowledge for world leaders to be able to manage a limited resource with a growing population will be critical for to have in order to

maintain or grow their nations' prosperity. On the other hand, if current water resources are not properly regulated, an eventual increase in world population will become problematic for many regions and countries.



(India population Density Map)

Overpopulation will strain current water resources to their limits, cause an increase in water pollution, and lead to an increase in civil and international conflicts over existing water supplies. The most limited resource is water. Though it covers over three fourth of the earth's surface, freshwater is only 2% of that, and most of it is frozen in glaciers and polar ice caps. As population density increases, the demand for the limited freshwater also increases. Increase in population also accelerates the pollution due to the following reasons:

- (i) Urbanization at an uncontrolled rate as in the case of India.
- (ii) Large amount of waste generated and disposed into the water bodies increases the pollution in the water bodies.
- (iii) Water from lakes, rivers, ponds, underground, etc. is used for both industrial and domestic purposes. 80% of the water that is used for domestic purposes comes out as wastewater. In most of the cases, this water is not treated properly and as such it leads to pollution of surface-level freshwater, and seeps into the ground, polluting groundwater as well.
- (iv) The rising number of industries in India contribute heavily to water pollution as industrial waste is most often untreated. The industries with the heaviest

impact on water bodies are thermal power plants, engineering industries, paper mills, steel plants and textile industries.

(v) Cities and towns located on the banks of Ganga generate a third of the wastewater generated in our country.

### **Industrial farming:**

Industrial agriculture has emerged as the worst deplete and polluted water, as industrial farming increases water use by a factor of ten, it leads to ground water withdrawals beyond recharge capacity, thus driving the push for large dams and intensive irrigation projects. Pollution by agro-chemicals has contaminated drinking water sources. Not only demand of water resources, the water pollution driven by far-end consumption is transferred to exporting nations through trade, threatening the water availability of exporting nations. As more than one in every six people in the world affected by water stress are living in developing countries (United Nations Development Programme 2006), there is an urgent need to study how globalized economy intensifies the water quality-induced scarcity in developing countries in the context of 'pollution leakage'. "In most high-income countries and many emerging economies, agricultural pollution has overtaken contamination from settlements and industries as the main factor in the degradation of inland and coastal water resources. Water quality concerns can arise from extractive industries as well as from various manufacturing and agricultural production processes.

### **Water Privatization:**

During the Economic Liberalization period in 1990's a set of measures favouring total reduction subsidies, full cost recovery, privatization, etc. has been promoted around the world. This logic has extended to the water sector as well. The world has witnessed increasing privatization of public sector water utilizes in several countries. From the eighth plan onwards, water has come to be treated as an economic good like any other commodity in India's official planning commission documents. An expert group on commercialization of infrastructure constituted by Ministry of Finance, Government of India (1996) recommended several measures to operate infrastructure projects, including urban water supply and sanitation, on commercial lines either by private parties or through public private partnership.

Globalization trends have affected the water sector, most notably by opening it up to significant competition and external influences. Water privatization activity has increased since 1997. Although all geographic regions have seen some water privatization, it has occurred predominately in Latin America and the Asian and Pacific Basin regions. The privatization of previously public assets generates revenue from sales and promotes greater efficiency from revamped operations while promoting profits for the new owners. As a basic necessity of modern life, many corporations view water as a good investment. In many

places, past fiscal mismanagement of the public sector's provision of local water services has increased the appeal of privatization. On the other hand, privatization of water services has drawn criticism from those concerned with the accountability of large private corporations, the needs of the poor for basic services, and environmental integrity.

### **Conclusion:-**

**In** many cases, we use water unwisely. The water available for use on Earth is finite, and if we are not wise in it's use, clean water will become a globally scarce commodity, as it now is already in so many places. Water is a vastly under-valued resource. However finding common ground on how to value it to give a true price of water to users is complex and global agreement hard to secure. As users, few think about the cost of extracting, transporting, chemically treating and providing water. And then there's the cost to our ecosystems of removing water from nature, the cost of polluting rivers and so on. All of this has a price, but access to water is a basic human right, so prices are kept low, compared to the real cost. Many solutions are being proposed to solve the problem, but most certainly all these solutions will have trade-offs and costs. No one solution will solve our water scarcity global problem. Soon after independence, the government of India adopted a policy of rapid economic development through extensive and intensive exploitation of natural resources. Unfortunately the Government has allowed private individuals corporate bodies and multinational corporations to encroach upon public lands and literally loot and destroy water resources. The rich and the powerful have gradually but surely appropriated the country's natural resources in their favour. The post-liberalisation period since 1991, with the advent of the multinational capital, has made the hold of these powerful groups on natural resources and the state machinery much stronger. The enthusiasm of the state in executing large water projects through these groups is not matched even remotely by the concern in practice to extend clean water supply to the poor on a sustainable basis. The need for water is continuous and the quantity required per capita per day is several times higher than that of food grains. Availability of clean water, transportation and storage over long distances and duration are difficult proposition to tackle in crisis situations. Instead of simply mentioning clean water as an input in food, the right of food complain should strongly incorporate right to water in the struggle against hunger and starvation.

**KEYWORDS:-** Globalization, Assets, Environment, Irrigation, Threats, Water, Population, Clean, Mutability, Reusability

**REFERENCES :-**

1. Divan, S. and Rosencranz, A. (2012):Environmental Law and Policy in India 167(14th ed., Oxford University Press).
2. Goel, P. K. (2014): Water Pollution: Causes, Effects and Controls, p. 8, 1st ed.
3. Water (Prevention and Control of Pollution) Act, 1974, 31 p.
4. Website - Ministry of Water Resources, River Development & Ganga Rejuvenation, <http://mowr.gov.in/>
5. Website - Press Information Bureau, Government of India, <http://www.pib.nic.in/>
6. Mahapatra,PK and Singh,RD. 2003. Flood Management in India, J. Natural Hazards, (28):131-143.

