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## **Mission Bhagiratha; to Extinguish Telangana's Thirsty Doma Kishor**

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### **Abstract**

*Now a day we are observing the scarcity of water all around the world. This was happened due to sudden changes in the environment. If we take an example of India, many people in the country are facing the problem of drinking water and also facing the water related diseases, and to agriculture. A number of innovative approaches to improve water supply and sanitation have been tested in India, in particular in the early 2000s. These include demand-driven approaches in rural water supply since 1999, community-led total sanitation, a public-private partnerships to improve the continuity of urban water supply in Karnataka, and the use of microcredits for water supply and sanitation in order to improve access to water and sanitation.*

*If it comes to Telangana many parts of the state are facing the water problems and water related diseases. So, for this Telangana Government has started the Mission Bhagiratha to overcome the problems related to the water.*

***Key Words: Earth's surface, Equator, Vapour, Water cycle, Mission Bhagiratha***

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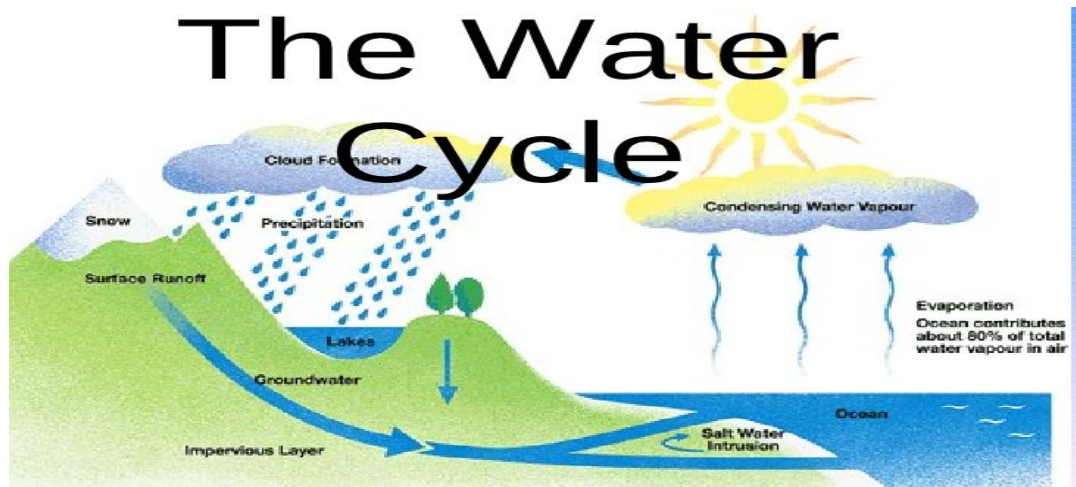
**Concept of Water:** Water covers about 70% of Earth's surface, makes up about 70% of your mass<sup>1</sup>, and is essential for life. This photograph of planet Earth, taken by the Apollo 17 crew as they traveled to-ward the moon on December 7, 1972, shows an area of the pla-net from the Mediterranean Sea to Antarctica. Water is visible in this photograph as the Atlantic, Indian and Southern (or An-tarctic) Oceans, the south polar icecap, and as heavy cloud cov-er in the southern hemisphere and scattered along the equator.

Water is unique; it moves in space and time; it is ice, vapour and liquid; and it exists in a continuous and dynamic hydrological cycle which, among its key aspects, converts water vapour into rainfall, runoff and evaporation and infiltration into groundwater. While there has been enormous progress in understanding water in the atmosphere, knowledge about the dynamic connection between water, soil processes and ecosystem responses to climatic signals is still being obtained. Climate change has brought to light a new level of complexity, represented by the immense challenge of predicting the non-linear behaviour of water in the atmosphere, the earth, and its interaction with the ocean.

Earth's water resources, including rivers, lakes, oceans, and underground aquifers, are under stress in many regions. Humans need water for drinking, sanitation, agriculture, and

industry; and contaminated water can spread illnesses and disease vectors, so clean water is both an environmental and a public health issue. In this unit, learn how water is distributed around the globe; how it cycles among the oceans, atmosphere, and land; and how human activities are affecting our finite supply of usable water.

**The Global Water Cycle:** Water covers about three-quarters of Earth's surface and is a necessary element for life. During their constant cycling between land, the oceans, and the atmosphere, water molecules pass repeatedly through solid, liquid, and gaseous phases (ice, liquid water, and water vapor), but the total supply remains fairly constant. A water molecule can travel to many parts of the globe as it cycles. There are three basic steps in the global water cycle: water precipitates from the atmosphere, travels on the surface and through groundwater to the oceans, and evaporates<sup>2</sup> or transpires back to the atmosphere from land or evaporates from the oceans.



Nearly 97 percent of the world's water supply by volume is held in the oceans. The other large reserves are groundwater (4 percent) and icecaps and glaciers (2 percent), with all other water bodies together accounting for a fraction of 1 percent. Residence times vary from several thousand years in the oceans to a few days in the atmosphere.

**Water Stress:** The concept of water stress is relatively simple: it applies to situations where there is not enough water for all uses, whether agricultural, industrial or domestic. Defining thresholds for stress in terms of available water per capita is more complex, however, entailing assumptions about water use and its efficiency. Nevertheless, it has been proposed that when annual per capita renewable freshwater availability is less than 1,700 cubic meters, countries begin to experience periodic or regular water stress. Below 1,000 cubic meters, water scarcity begins to hamper economic development and human health and well-being.

As farmers, industry and people take too much water there is nothing left for nature<sup>3</sup>: Increases in water use have resulted in high environmental costs, including loss of biodiversity as well as affecting natural water systems such as rivers and aquifers. Half of the world's wetlands have disappeared over the last century, with some rivers now no longer reaching the sea, and over 20% of the estimated 10,000 freshwater fish species are now endangered or extinct

**Population and Water:** Water is crucial for all life on earth. It plays an essential role in our health, economy, food production, and environment. Safe drinking water and freshwater are imperative for development and public health since 21 of the 37 primary diseases in developing countries are related to water and sanitation.<sup>1</sup> Despite its importance, water is a finite natural resource and cannot be created. Instead, the hydrologic cycle recycles water through the atmosphere.<sup>1</sup> The fact that our supply is finite has dire implications on our world population of nearly 7 billion people and growing. The global water consumption rate doubles every twenty years, a pace that is double the rate of population growth.<sup>1</sup> If population and consumption trends persist, it is estimated that the demand for water will surpass its availability by 56%,<sup>1</sup> and 1.8 billion people<sup>2</sup> will be living in regions of water scarcity by 2025. This situation is exacerbated by the fact that developing countries, already experiencing water-stress, often have the highest population growth rates—bringing more people into a region that already cannot support them.

**Fresh Water on Earth:** Supplies of freshwater (water without a significant salt content) exist because precipitation is greater than evaporation on land. Most of the precipitation that is not transpired by plants or evaporated infiltrates through soils and becomes groundwater, which flows through rocks and sediments and discharges into rivers. Rivers are primarily supplied by groundwater, and in turn provide most of the freshwater discharge to the sea. Over the oceans evaporation is greater than precipitation, so the net effect is a transfer of water back to the atmosphere. In this way freshwater resources are continually renewed by counterbalancing differences between evaporation and precipitation on land and at sea, and the transport of water vapor in the atmosphere from the sea to the land.

**Distribution of Freshwater Resources:** Freshwater accounts for only some 6 percent of the world's water supply, but is essential for human uses such as drinking, agriculture, manufacturing, and sanitation. Two-thirds of global freshwater is found underground. If you dig deeply enough anywhere on Earth, you will hit water. Some people picture groundwater as an underground river or lake, but in reality it is rarely distinct water body (large caves in limestone aquifers are one exception). Rather, groundwater typically fills very small spaces (pores) within rocks and between sediment grains.

**Concept of Drinking Water:** **Drinking water**, also known as **potable water** or **improved drinking water** is water that is safe to drink or to use for food preparation, without risk of health problems. Globally, in 2015, 91% of people had access to water suitable for drinking. Nearly 4.2 billion had access to tap water while another 2.4 billion had access to wells or public taps. 1.8 billion people still use an unsafe drinking water source which

may be contaminated by feces. This can result in infectious diarrhea such as cholera and typhoid among others.

**Drinking water in India:** The Department of Drinking Water Supply (DDWS) was created in the Ministry of Rural Development in 1999, which was subsequently renamed as the Department of Drinking Water and Sanitation in 2010. Keeping in view the significance of Rural water supply and Sanitation, the Government of India created and Notified the Ministry of Drinking water and Sanitation as a separate Ministry on 13th July, 2011.

The Ministry of Drinking Water & Sanitation<sup>4</sup> is the nodal Ministry for the overall policy, planning, funding and coordination of the flagship programmes of the Government for rural drinking water viz. the National Rural Drinking Water Programme and for Sanitation, the Swachh Bharat Mission-(Gramin) in the country. There are three programme divisions namely Water, Water Quality and Sanitation to carry out the functions of the Ministry. For the Eleventh Five Year Plan, it had been decided that the major issues which need tackling during this period are problems of sustainability, water availability and supply, poor water quality, centralized versus decentralized approaches and financing of O&M, cost on equitable basis with full consideration to ensure equality in regard to gender, socially and economically weaker sections of the society, school children, socially vulnerable groups such as pregnant and lactating mothers, specially disabled and senior citizens etc.

**Mission Bhagiratha: A concept of Drinking Water in Telangana:** Water is life! International community has declared clean drinking water as a human right long back. Yet, lack of drinking water is a common sight in our state and country. Even though two perennial rivers flow across the state, the tragedy is, most of Telangana state does not have access to clean drinking water. To change this situation, the Telangana government, under the able leadership of CM Sri K Chandrashekar Rao, has designed the Telangana Water Grid - a mammoth project intended to provide a sustainable and permanent solution to the drinking water woes.

Chief Minister Sri K Chandrashekar Rao drew inspiration for the Telangana Water Grid, from the success of another project that he himself conceived and executed, while he was the MLA for Siddipet Assembly Constituency.

The Siddipet Drinking Water Project, which was the brainchild<sup>5</sup> of Sri K Chandrashekar Rao took shape in 1996-97. The project, which costed Rs 60 Crores involved lifting water from Lower Manair Dam and supplying it to every household in about 180 villages in Siddipet constituency. The successful implementation of this project and the glitch-free operation from past two decades, is a testimony to the vision and foresight of our beloved CM.

**The Water Grid Concept:** The Telangana Water Grid would depend on water resources available in Krishna & Godavari - two perennial rivers flowing through the state. A total of 34 TMC of water from Godavari river and 21.5 TMC from Krishna river would be utilized for the water grid. Plans are ready to use water from Srisailem, Sriram Sagar Project,

Komuram Bheem Project, Paleru Reservoir, Jurala Dam, Nizam Sagar Project. This scientifically designed project intends to use the natural gradient wherever possible and pump water where necessary and supply water through pipelines. The state-level grid will comprise of a total of 26 internal grids.

The main trunk pipelines of this project would run about 5000 KM, and the secondary pipelines running a length of about 50000 KM would be used to fill service tanks in habitations. From here the village-level pipeline network of about 75,000 KM would be used to provide clean drinking water to households.

**Objective:** The objective of Telangana Water Grid is to provide 100 liters of clean drinking water per person in rural households and 150 liters per person in urban households. This project aims to provide water to about 25000 rural habitations and 67 urban habitations.

**Advanced Smart Technology used in Mission Bhagiratha:** The state government will be using the latest technology for the proposed Water Grid project. Advanced Light Detection and Ranging (LIDAR) technology would be utilized for a detailed survey of the Water Grid. Lightweight aircraft will be engaged for aerial survey. IT and Panchayat Raj Minister KT Rama Rao informed the media that the Telangana state government will also use hydraulic modeling software for determining the size of water pipelines, pumping capacity and height to which water would be pumped. Along with this, software tools like surge analysis and smart flow would be used to resolve any problems that arise in the distribution of water. CM K Chandrashekar Rao would be personally monitoring the entire Water Grid project works from Secretariat through System Control and Data Access (SCDA) technology.

The state government intends to adopt international standards in the execution of this project. To improve coordination and optimize resources, the government would follow a turn-key model where the organizations executing the project would be responsible for its maintenance too.

### **Findings of the Study:**

1. Prime Minister on Sunday launched a programme Telangana water grid “Mission Bhagiratha” during his first visit to Telangana. He said that “Mission Bhagiratha is the brain child of Telangana’s chief minister, to provide safe drinking water to all people, at Komitibanda, Gajwel in Medak district.
2. Chief Minister KCR issued orders for recruitment and speed execution of works by December 2017. He asked to appoint “2560<sup>6</sup> technicians to work for Mission Bhagiratha”. As many as 2560 persons different Industrial Training Institute (it is) would draft for implementation of the Mission Bhagiratha, an estimated outlay of Rs, 2611 crore.
3. KCR said with Ministers and collectors to take care the works and ensure that project is completed by December 2017

4. Telangana government had decided to buy all electromechanical equipment to its ambitious project, aimed at providing piped drinking water to each of the state's 84 lakh households from public sector (BHEL)<sup>7</sup>, which costs Rs, 40,000 crore project.
5. People can avail the services of the government in the form of "Mission Bhagiratha" for freely. The state is ready to provide free drinking water to the people of the state for initial time. This operation costs<sup>8</sup> Rs.1, 000 crore per year, most of the houses in the state will be covered by the end of 2017, and the houses continue to receive free water service by the government till the end of 2018.
6. Telangana CM has met the officials of NITI<sup>9</sup> to provide a permanent solution to Mission Bhagiratha and Mission Kakatiya<sup>9</sup>, because they would provide a permanent solution of drinking and agriculture needs in the state. The honorable CM brought this issue to the notice of these officials.
7. Telangana's Mission Bhagiratha<sup>10</sup> will not only extinguish the thirst of hundreds of habitants but also provide power to lakh of households in the state. We will have surplus power with in two years or the project is complete once.
8. The honorable CM K Chandra Sekhar Rao<sup>11</sup> is also advised to link up MGNREG to Mission Bhagiratha, he also advised to use this labour for laying pipelines for this Mega project.
9. UNICEF is ready to conduct survey on Mission Bharatha. UNICEF in association with CESS<sup>12</sup> (Centre for economic and social studies) is willing to conduct the survey in Telangana state about the impact of Mission Bhagiratha to know about the impact of the scheme.
10. "Mission Bhagiratha faces forest land hitch<sup>13</sup>". The Telangana government ambitious project or programme Mission Bhagiratha to provide safe drinking water to each household in the state in future is facing hurdles over procuring clearance in proceed in forest areas. The government is require 1,180 acres (474 hectares) of land for this project to lay the pipelines and also construction of structure for the project

**Conclusion:** It is one of the greatest among the schemes launched by the governments. This is the major step taken towards the people of the state. Many parts of the state are facing the problems of drinking water and people also facing the diseases including cholera, typhoid, and dysentery, fluoride are caused by drinking water containing infectious viruses or bacteria, which often come from human or animal waste. We are expecting the state may overcome all the problems related drinking water, and water related diseases.

**References:**

1. "Earth's water distribution". *United States Geological Survey*. Retrieved 2009-05-10
2. Arctic Climatology and Meteorology. Retrieved on 2006-10-20
3. Chance, Clifford (October 2011), 'Tackling Water Scarcity'. Advocates for International Development
4. The Ministry of Drinking Water & Sanitation, India
5. The Indian Express, August 7<sup>th</sup>, 2016
6. The Hindu, April 18<sup>th</sup>, 2016
7. Sakshi, October 17<sup>th</sup>, 2016
8. Deccan Chronicle, 2<sup>nd</sup> February, 2017
9. Deccan Chronicle, August 12<sup>th</sup>, 2016
10. Deccan Chronicle, March 27<sup>th</sup>, 2016
11. Deccan Chronicle, Feb 27, 2016
12. The Hindu, 10<sup>th</sup> December, 2016
13. The Times Of India, November 01<sup>st</sup>, 2016