

# जल : मानवता की अतृप्त प्यास

(Water : Unquenchable thirst of Mankind)

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# Water resource and its management

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Fresh water is a natural resource. Although seventy one percent of the earth's surface is covered by water, ninety seven percent of this total water is salt water and only three percent is fresh water. Of the total fresh water, two third is present in unusable form in glaciers and ice caps and rest one third is in usable form as surface and ground water. This one third of fresh water i.e. one percent of total water on earth is the water which is available for sustaining life on earth and for all human domestic, industrial, irrigational and other needs. Thus, freshwater is a scarce natural resource. It is also a renewable resource and it needs management for sustainable use.

## Sources of Water

There are two sources of usable fresh water viz. surface water (present on the land surface) and ground water (present below the land surface). Of the total usable fresh water, surface water is thirty percent and ground water is seventy percent.

Surface water is present on the land surface in a river, lake or fresh water wetland. It is naturally replenished by precipitation and is naturally lost through runoff, evaporation, transpiration and groundwater recharge. The balance is available as surface water. The natural availability depends on many factors like storage capacity in lakes, wetlands and artificial reservoirs, the permeability of the soil beneath these storage bodies, the runoff characteristics of the land in the watershed, the timing of the precipitation and local evaporation-transpiration rates. But, human activities also have

## **Inter-basin water transfer**

Inter-basin water transfer provides additional water from a water-surplus river basin to water-insufficient river basin. It is useful in preventing flood conditions in water-surplus basin and providing irrigation and sustaining hydro-electric power generation in water-deficient basin. The National River Linking Project (NRLP) in India is one of the biggest inter-basin water transfer projects in the world. It has been planned to relieve water deficits in western and southern states and to relieve flood conditions in the eastern parts of the Ganga basin.

## **Conclusion**

Fresh water is essential for the survival of human beings, other life forms and ecosystem as a whole. Although earth has sufficient amount of fresh water, humanity has faced, is facing and will face the two-pronged challenge. On one hand, shortage of water has led to thirst, hunger and malnutrition in many parts of the world. On the other hand, floods and other water-related disasters account for about two third of all deaths related to natural disasters. Keeping in mind these challenges, United Nations has put availability and sustainable management of water among the global goals as SDG 6 in the list of 17 sustainable development goals (SDGs). Most of these SDGs are linked to a sustainable supply of clean fresh water. Therefore, it is wished that our natural resources are managed for their sustainability for the happiness and prosperity.

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