

CHAPTER 16

Sustainable Management of Natural Resources

Water as a Resource:

- Water is a necessity for all terrestrial forms of life. Regions of water scarcity are closely related to the regions of acute poverty.
- Failure to sustain water availability has resulted in loss of vegetation cover, diversion for high water demanding crops and pollution from industries and, urban wastes and less rain.
- Irrigation methods like dams, tanks should be used in various part of India.

Advantages of Dams:

- Water from a dam is used for irrigation in fields through a network of canals. Dams ensure round the year water supply to the crop fields and help raise agricultural production.
- Water from a dam is supplied to the people in towns and cities through pipelines after suitable treatment. In this way, construction of dams ensures continuous water supply in the region.
- The falling water (or flowing water) from the dam is used for generating electricity. The water rushing down the dam turns turbines, which run electric generators.

Disadvantages of Dams:

- **Social Problems:**

Due to the construction of high-rise dams, a large number of human settlements (or villages) are submerged in the water of large

reservoir formed by the dam and many people are rendered homeless. This creates a social problem.

- **Environmental Problems:**

The construction of high-rise dams on the rivers contributes to deforestation and loss of biodiversity. This is because a vast variety of flora and fauna (plants and animals) get submerged in the water of large reservoir formed by the dam and disturb the ecological balance.

- **Economic Problems:**

Some people say that the construction of high-rise dams involves the spending of a huge amount of public money without the generation of proportionate benefits.

Forests:

Forests are important renewable natural resources dominated mainly by trees forming a sort of canopy, they are essential for the ecological balance of all ecosystems. They maintain the biological ecosystem.

Water Harvesting:

Aim is to develop primary resources of land and water to produce secondary resources of plants and animals for use in a manner, which will not cause ecological imbalance.

Various ancient methods of water harvesting:

Methods	State
Khadin, tanks, nadis	Rajasthan
Banderas, tals	Maharashtra
Bundhis	Madhya Pradesh and U.P.
Pyhes and Pynes	Bihar
Kulhs	Himachal Pradesh
Ponds	Jammu Region
Eris (tanks)	Tamilnadu

Baylis –

Old method of water harvesting in Delhi and nearby region.

These techniques are local specific to ensure the mismanagement and over-exploitation of these resources.