CBSE Class 10 Science

Revision Notes

CHAPTER – 16

MANAGEMENT OF NATURAL RESOURCES

- Natural Resources - Resources provided to us by nature soil, air, water, forests, wildlife, coal and petroleum are used by man for his survival.
- **Types of Resources** :

(a) Exhaustible : present in limited quantity e.g. coal petroleum.

(b) Inexhaustible : present in unlimited quantity e.g. air, water.

- Management of natural resources is needed for conservation of natural resources.
- There are National and International Laws and Acts to protect the environment.
- **Ganga Action Plan** : Multi Crore Project came in 1985 to improve the quality of Ganga
- Contamination of river water is indicated by the presence of coli form (a group of bacteria found in human intestine) and acidic water (can be tested by the pH paper or pH meter).

1993-94 Total Coliform(MPN/100ml)

- Minimun found in Rishikesh 600-650 MPN/100ml
- Minimum desired level 450MPN/100ml
- Maximum found in kannauj 1400MPN/100ml

The Three R's to save the environment

- The three R's to save the environment are Reduse, Recycle and Reuse.

- **Reduce -** means using less of natural resources and avoiding wastage of natural resources.
- **Recycle -** means the materials like paper, plastic, glass, metals etc. used for making things can again be used for making new things instead of synthesizing or extracting new paper, plastic, glass or metals.
- **Reuse -** means using things again and again like the plastic bottles in which we buy

jams, pickles etc can be again used for storing things in the kitchen.

We must be careful about the effect our choices of living make on the environment.Economic development is linked to environmental development.Thus, sustainable development is important.

SUSTAINABLE DEVELOPMENT: economic development that is conducted without depletion of natural resources.

Why Do We Need To Manage Our Resources ?

1. they are limited in quantity.
2. Due to increasing population, their demand has increased resulting in overuse of resources.
3. These resources take a really long time to form thus depletion will cause problems for the future generations.

FORESTS AND WILDLIFE :

Forests are 'Biodiversity hotspots'. Hotspot means an area full of biological diversity.

The biodevrsity of an area can be measured by determining the number of species found there. The main aim of conservation is to try and preserve the biodiversity.

Conservation of biodiversity is important to maintain ecological stability.

- National Award for wildlife conservation – in the memory of Amrita Devi Bishnoi who lost her life in the protection of Khejri trees in Rajasthan along with 363 other people.
- **Chipko Andolan** : Movement originated in Garhwal in early 1970sthat was the result of a grassroot level effort to end the alienation of people from their forest.
- Protection of Sal forest in West Bengal in 1972.

STAKE HOLDERS:A person having interest or concern for something is called as stake holder.

Stakeholders of forests : (their dependence on forests)
- Local People (dependent on forests for their survival)
- Forest Department (Govt. who owns the land and controls resources)

- Industrialists (Who use various forest products)
- Wiilds llife enthusiasts (who want to conserve nature)

Sustainable Management

Management of resources wisely to make them available for future generations.

Water

- Water is a basic necessity for all terrestrial forms of life.
- Irrigation methods like dams, tanks and canals have been used in various part of India.

Dams

- **Advantages of Dams** – Ensures adequate water for irrigation (sufficient to satisfy need).
- Generate electricity.
- Continuous supply of water in regions.

Disadvantages

- No equitable distribution of water.
- Large no. of people displaced without compensation.
- Involves huge amount of Public money without giving proper benefits.
- Causes deforestation and loss of biological diversity.
- **Water Harvesting** : Collection of rain water and its utilisation for various purposes.
- **Advantages of storing water in the ground :**

(a) It does not evaporate.
(b) It spreads out to recharge wells.
(c) It provides moisture for vegetation over a wide area
(d) It does not provide breeding grounds for mosquitoes.
(e) It is protected from contamination by human and animal waste.

• Various ancient methods of water harvesting
Method State

Khadin, tanks, nadis Rajasthan
Bandharas, tals Maharasthra
Bundhis Madhya Pradesh and U.P.
Pynes, ahars Bihar
Kulhs Himachal Pradesh
Ponds Jammu Region
Eris (tanks) Tamilnadu

- **Bawlis** – Old method of water harvesting in Delhi and near by region.

COAL AND PETROLEUM

- Coal and petroleum are non-renewable natural resources.
- Coal was formed from the remains of trees buried deep inside the earth some 500 million years ago.
- Petroleum is formed by the bacterial decomposition of dead marineplants and animals (burried at the bottom of the seas. This decomposition takes place under high pressure and temperature and formation of petroleum take millions of years of time.
- Coal and petroleum are called fossil fuels.
- Very soon coal and petroleum will be exhausted.
- At present rate of usage, petroleum will last us for about 40 years and the coal resources will last for another 200 years.
- Harmful effects of using fossil fuels:

** Combustion of coal and hydrocarbons release a large amount of carbon monoxide, carbon dioxide, sulphur dioxide, oxides of nitrogen, etc. These cause air pollution and cause various diseases like respiratory and throat problems congestion etc.

** Excessive emission of green house gases like carbon dioxide cause a rise in atmospheric temperature (Global Warming).

What you have learnt

- Our resources like forests, wild life, water, coal and petroleum need to be used in a sustainable manner.
- We can reduce pressure on the environment by sincerely applying the maxim of

'Reduce, Reuse and Recycle' in our lives.

- Management of forest resources has to take into account the interests of various
- The harnessing of water resources by building dams has social, economic andenvironmental implications. Alternatives to large dams exist. These are locale specificand may be developed so as to give local people control over their local resources.
- The fossil fuels, coal and petroleum, will ultimately be exhausted. Because of this and because their combustion pollutes our environment, we need to use these resources judiciously.