

MANAGEMENT OF NATURAL RESOURCES

CLASS X

NATURAL RESOURCES

Natural Resources

Resources available in a nature like air, water, sunlight, soil, minerals, forests, wild life



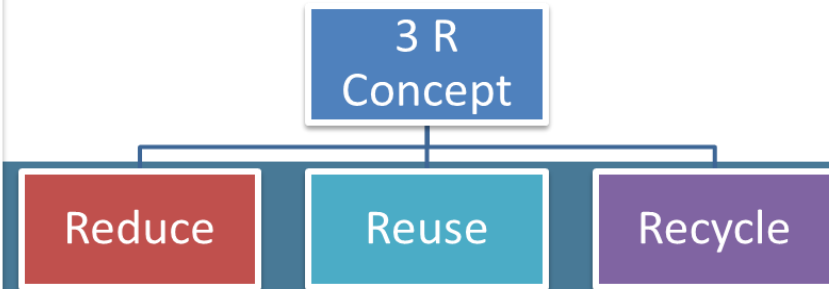
Non-renewable natural resources

Resources which cannot be replenished in a short period of time like minerals (coal, petroleum, natural gas, metals)

Renewable natural resources

Resources which can be replenished in a short period of time like air, water, sunlight, forests

3 R's to save Environment





WATER POLLUTION

UNTREATED SEWAGE & HUMAN EXCRETA

INDUSTRIAL WASTE BATHING, WASHING & DROPPING THE ASHES OF CREMATED.



INDICATORS OF WATER POLLUTION

Coliform bacteria

Coliform is a group of bacteria, found in human intestines, whose presence in water indicates contamination by disease-causing microorganisms.

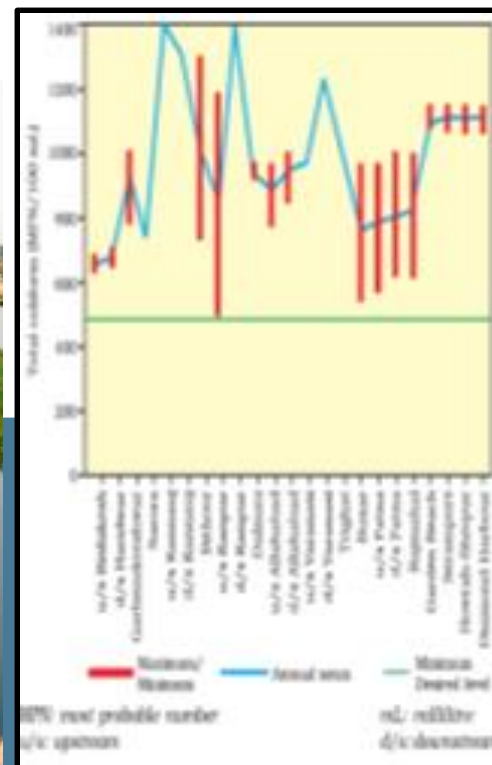
Checking pH

Checking of pH used to quantify pollution or the quality of the water used for various activities



GANGA ACTION PLAN

The Ganga Action Plan was a program launched in 1985 in order to reduce the pollution load on the river.



WATER AS A NATURAL RESOURCE

Management of water resources

- ❖ Integrated watershed plan
- ❖ Flood control
- ❖ Rain harvesting & recharging of ground water through traditional methods

Water is a basic necessity to all terrestrial life forms.

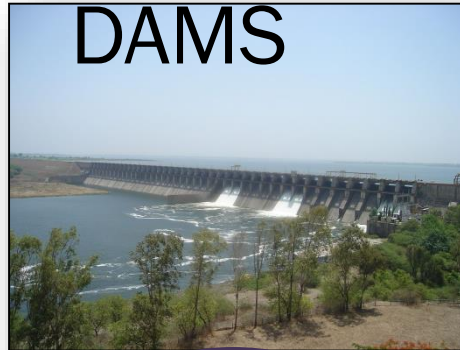
Water availability is less because of urban waste, diversion for high water demanding crops etc.

Irrigation methods like dams, tanks, canals are used to meet the requirements of agriculture and daily needs.

Advantages of Dams

1. Regular and round the year water supply to nearby human settlements
2. Irrigation
3. Generation of electricity.

DAMS



1. Sardar Sarovar dam : River Narmada
2. Tehri dam : River Ganga
3. Tawa Dam

Disadvantages of constructing Dams

1. Social problems : Displacement of people
2. Environmental Problems: deforestation and loss of biodiversity
3. Economic Problems : consumption of huge public money

WATER HARVESTING

Capturing of
rain water or
run off for
reuse

- Ground
water
harvesting
- Rooftop
rainwater
harvesting

Advantages of ground water

Does not evaporate

To recharge wells
and provides
moisture for crops

Does not promote
breeding of
mosquitoes (unlike
stagnant water

Protected from
contamination

Technique

Capturing runoff
from roof tops

Capturing runoff
from local
catchment

Capturing flood
water from local
streams

WATERSHED MANAGEMENT

SCIENTIFIC CONSERVATION OF SOIL & WATER TO INCREASE BIOMASS PRODUCTION

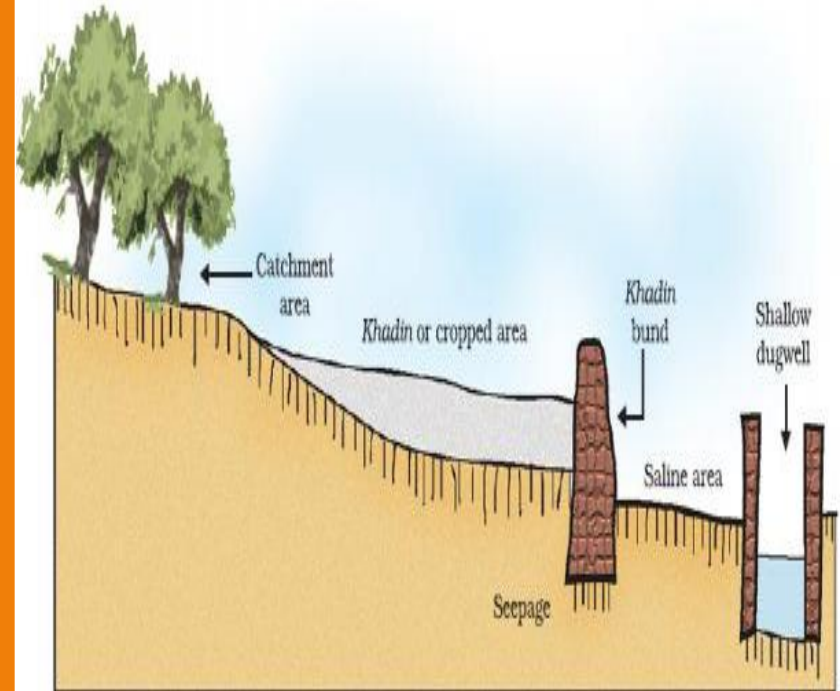
Increase income of watershed community

Overcome drought and flood

Increase life of downstream dams and reservoirs

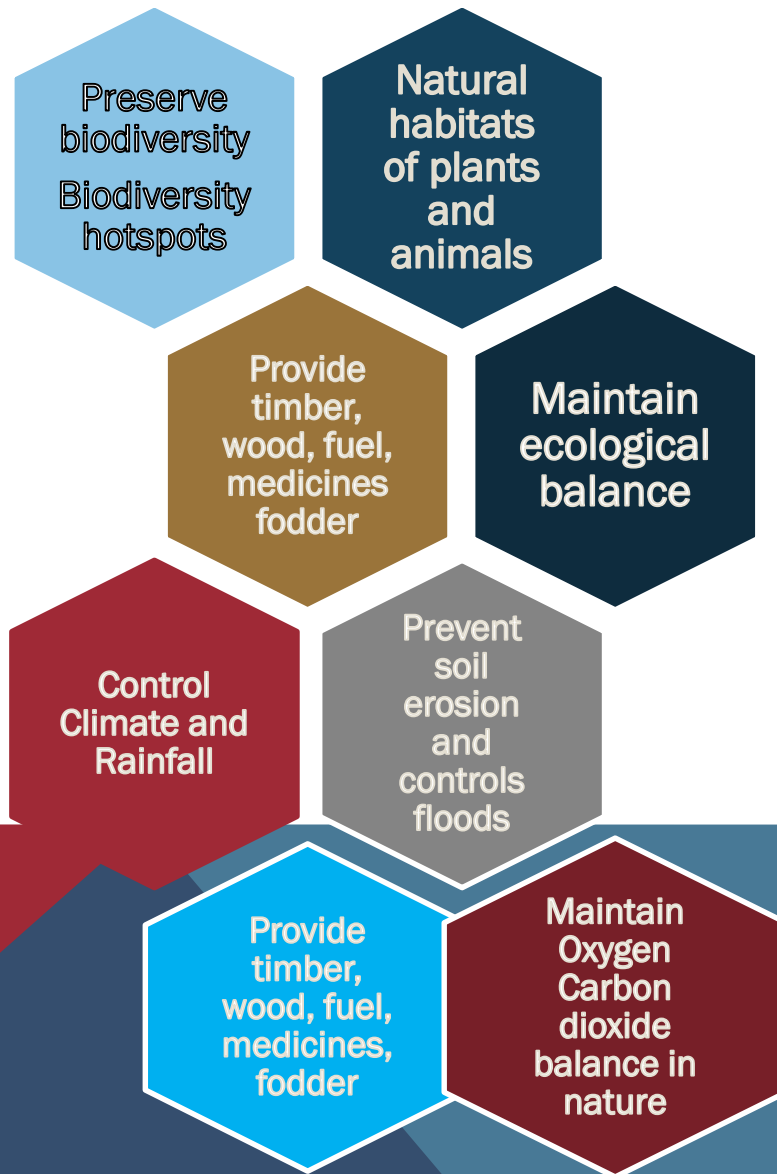
Traditional water Harvesting structures

- Khadins, Tanks and Nadis in Rajasthan
- Bandharas and Tals in Maharashtra
- Bundhis in M.P. and U.P.
- Kulhs in Himachal Pradesh
- Ponds in Jammu
- Eris (Tanks) in Tamil Nadu
- Surangams In Kerala
- Kattas in Karnataka



Khadin -Traditional water Harvesting structures

IMPORTANCE OF FORESTS



CAUSES OF DAMAGE TO FORESTS:

By local people to fulfil their daily needs

Deforestation for industrial needs

Deforestation for development projects like dams and roads

STAKE HOLDERS OF FORESTS PEOPLE WHO ARE ASSOCIATED WITH FORESTS DIRECTLY OR INDIRECTLY

The person
who live in and
around forest

The forest
department

The
industrialists

The forest and
wildlife
activists

CONSERVATION OF FORESTS

- Afforestation
- Preventing or reducing deforestation.
- Preventing over grazing by cattle.
- Agroforestry
- By setting up wildlife sanctuaries, national parks, biosphere reserves
- Undertaking social forestry programs for benefit of rural & tribal community



EFFORTS MADE TO PROTECT FOREST PARTICIPATION OF LOCAL PEOPLE IN THE MANAGEMENT OF FOREST

CASE 1

The case of khejri trees There is a Bishnoi community in Rajasthan for whom conservation of forest and wildlife has been a religious belief.

In 1973, Amrita Devi Bishnoi led a group of 363 person who sacrificed their lives for the protection of khejri trees in khejrli village near Jodhpur in Rajasthan.

CASE 2

Chipko movement

Chipko movement started in the early 1970s in the Garhwal Himalayas of Uttarakhand.

A group of peasant women in Reni village, acted to prevent the cutting of trees and reclaim their traditional forest rights that were threatened by the contractor system of the state Forest Department.



CASE 3

- Help in increasing forest produce as well as in their conservation .
- In return the villagers are given employment in both silviculture and harvesting in forest , 25% of the final harvest produce , and were allowed to collect firewood and fodder from the forest area on a nominal payment .

WILDLIFE

Importance of wildlife

- Wildlife helps to preserve biodiversity.
- Wildlife helps to maintain food chains and food web.
- Useful products from wildlife like food, medicines, leather, honey, lac

Conservation of wildlife

- Preserving the natural habitats of animals.
- Banning poaching of animals.
- Protecting endangered species of animals.
- Setting up of wildlife sanctuaries, national parks, biosphere reserves etc.



FOSSIL FUEL

OBTAINED FROM THE REMAINS OF PLANTS & ANIMALS
BURIED MILLION OF YEARS AGO

