

INTRODUCTION TO NATURAL RESOURCE

SEM III
PAPER 1 UNIT I

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What is a Resource?

- Resource is anything in this environment which has utility.
- Anything obtained from the living and non living environment to meet human needs and wants.

Resources

Erich W. Zimmerman

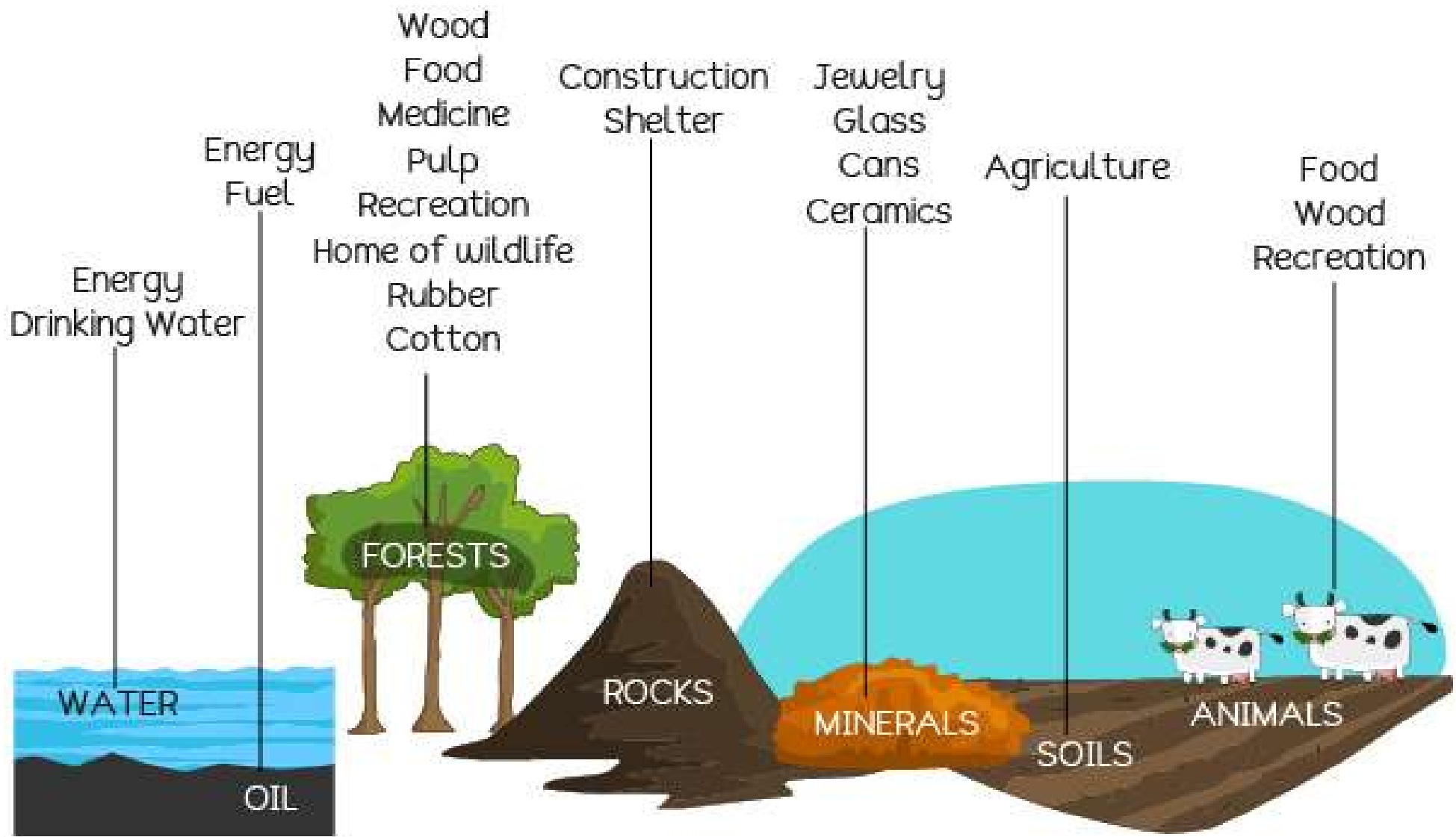
‘A resource is not just a thing or a substance but the function that the thing or substance performs in order to satisfy human needs and wants’

Endowment, Potentiality, Resource

- Sum total of all the substances, mass or material possessed by nature is called **Endowment**.
- When man comes to know its uses, it becomes **Potentiality**.
- When these potentialities are brought in use, they become **Resource**.

Classifying Resources

Renewable Non- Renewable	Natural Human
Sustainable Non Sustainable	Finite Infinite
Recyclable	



Natural Resources

- A **natural resource** is anything that people can use which comes from nature.
- People do not make natural resources, but **gather** them from the earth.
- Examples air, water, wood, oil, wind energy, iron, and coal.

Natural Resources



- Refined oil and hydro-electric energy are not natural resources because people make them.



Natural Resources

- **Natural resources** are naturally occurring substances that are considered valuable in their relatively unmodified (natural) form.
- A commodity is generally considered a natural resource when the primary activities associated with it are **extraction** and **purification**, as opposed to **creation**.

Natural Resources

- Thus, mining, petroleum extraction, fishing, hunting, and forestry are generally considered natural-resource industries, while **agriculture is not.**



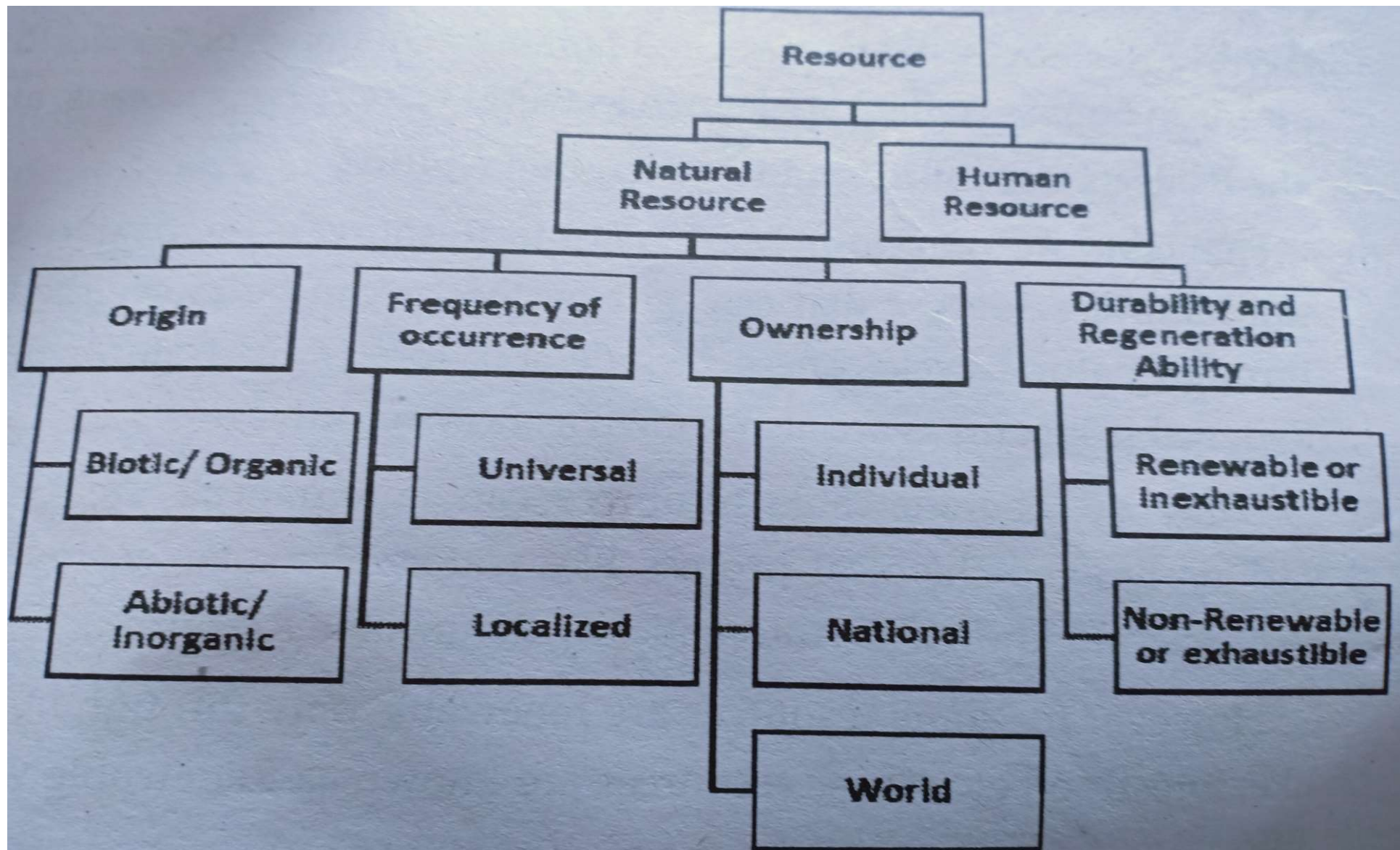


Fig. 2.1 Schematic Classifications of Resources

Classification of Natural Resource depending upon Origin

Biotic:

- They are obtained from the biosphere.
- Examples Plants and animals and fossil fuels

Abiotic:

- They consist of the non living matter.
- Examples include water, land and mineral ores of copper, aluminum, gold, silver etc.

Classification of Natural Resources depending on Occurrence

Ubiquitous resources

- Some natural resources such as sunlight and air can be found everywhere, and are known as ubiquitous resources.

Localized resources

- Most resources only occur in small sporadic areas, and are referred to as localized resources

Classification of Natural Resources depending on Ownership

Individual or personal resources

- One's material possession

Eg. Agricultural land, car, house

- Even individual's personal qualities

Eg. Knowledge, skills

Classification of Natural Resources depending on Ownership

National resources

- Sum of all the resources of citizens and the govt. of a particular country

Eg. Forest, rivers, country's mineral deposits

World resources

- All material and non material things

Eg. Oceans, air

Classification of Natural Resource depending on Renewability

Perpetual resources:

- The resources which do **not get exhausted** are called perpetual natural resources.

For example solar energy, water tides and wind.

- It serve the **alternative source** of energy and help to minimize the use of non-renewable resources.

Classification of Natural Resource depending on Renewability

Renewable natural resources:

- The resources which can be **replenished** and **do not change the ecological balance** are known as renewable natural resources.
- Fresh air, fresh water, fertile soil, plants and animals.

Classification of Natural Resource depending on Renewability

- Some resources such as plants and animals are replaced from time to time because they have a **life-cycle** and **continuous harvest** is possible.

Hence they are called renewable resources.

- If these resources are indiscriminately used, there can be extinction.

Classification of Natural Resource depending on Renewability

Non-renewable natural resources:

- Resources which once used up will be exhausted are non-renewable natural resources.
- Once they are used in unlimited way they cannot be easily replaced.
- Eg: Mineral, fossil fuels

Classification of Natural Resource depending on Renewability

- Non-renewable resources are in limited amount .
- Therefore they should be appropriately consumed.
- If not they go to extinction and it is hard to get them back.

Difference between Renewable and Non Renewable Resources

Renewable

- Replenished by nature
- Clean form
- Infinite
- Free gift of nature
- Flow resources
- Eg. Wind, sunlight, biomass, water

Non Renewable

- Cannot be renewed
- Damage to environment
- Limited
- Not the free gift of nature
- Fund
- Coal, mineral oil, natural gas

Classification of natural Resource depending upon Developmental Stage

Potential resources:

- They are found in a particular area and can be used in the future.

Actual resources:

- They are used in the present after determination of their availability (in terms of quality and quantity)

Human Resources

Quantitative study of population

The total population, sex structure, age structure, distribution, working population

Qualitative study of population

The education, knowledge, skill, personality, intelligence, ethical values

The qualities like technical skill, education, good health becomes resource for economic development of the country

Factors Influencing Resource Utilization

- Natural resources play an **important role** in **development** of a country.
- But the natural resources are **not evenly** distributed in the world.
- Some countries are **very rich** in minerals but **some are not**.
- **Availability** of resources depends upon geographical factors like **terrain, climate, rocks structure**

Why are Natural Resources so Important



Why are Natural Resources so Important

- Provide us with Food , water
- Provides us with Medicines
- Raw material for Shelter
- Raw material for industries and agriculture
- Maintaining climate and mitigating climate change
- Maintaining biodiversity and ecosystem services
- Part of our cultural heritage

Why are Natural Resources so Important

- Provide employment and livelihood
- Economic development
- Crucial part of national security
- Provides Modern lifestyle
- Helps in Tourism
- Helps in Recreation and Leisure
- Helps in Preservation of environment
- Helps us to Prevent disaster
- Aids in Research and innovation

Need for Resource Conservation

- **Proper management** of natural resources to prevent its exploitation, destruction or degradation.
- Consumption of natural resources is increasing rapidly due to continuous growth in **population and industrialization**
- Resulting in **deterioration** and **depletion** of resources

Resource Conservation

- a) Judicial utilization of Resources
- b) Substitution
- c) Recycling
- d) Technological Innovation and Research
- e) Minimization of Waste
- f) Enforcement of Law

Resource Conservation ...

- g) Create Awareness among Masses
- h) Government Policy of Conservation
- i) Role of Individual