🌱 Chapter 1: Resources and Development – CBSE Notes

🔹 1. **What is a Resource?**

✅ **Repeated Board Question**: *What are resources? Classify them.*

- **Definition**: Anything in our environment that can satisfy our needs, is technologically accessible, economically feasible, and culturally acceptable is called a **resource**.

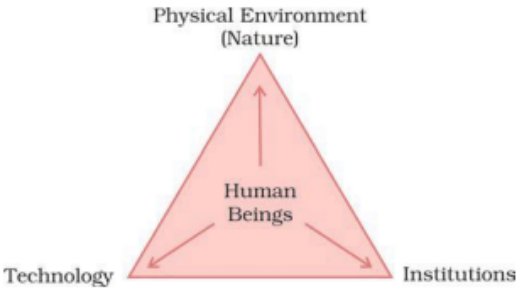


Fig. 1.1: Interdependent relationship between nature, technology and institutions

- **Human role**: Resources are **not free gifts of nature**; humans convert natural materials into resources through technology.

Classification of Resources:

Basis	Types
Origin	Biotic (plants, animals), Abiotic (minerals, water)
Exhaustibility	Renewable (solar energy), Non-renewable (coal, petroleum)
Ownership	Individual, Community, National, International
Development status	Potential, Developed, Stock, Reserves

🔹 2. **Development of Resources**

✅ **Repeated Focus Area**: *Problems of resource overuse and sustainable development*

- **Problems due to misuse**:
  - Depletion for selfish purposes.

- Inequitable distribution → social division (rich vs poor).
- Global crises: global warming, pollution, land degradation.

Sustainable Development:

- Definition: *"Development without harming the environment and without compromising future generations' needs."*
- **Rio Earth Summit (1992)**:
  - Signed *Agenda 21* → Plan to promote **global sustainable development**.
  - Aim: Global cooperation to fight poverty, environmental damage, and disease.

🔹 3. **Resource Planning in India**

✅ **Frequently Asked**: *What is resource planning? Why is it needed?*

- **Why needed?**
  - Unequal distribution in India:
    - Jharkhand, Chhattisgarh: mineral-rich but poor.
    - Arunachal: water-rich but lacks infrastructure.
    - Rajasthan: solar & wind energy but water-scarce.

Steps in Resource Planning:

1. Identification & inventory of resources (survey, mapping).
2. Develop planning structure with technology, skills, and institutions.
3. Match plans with national development goals.

🔹 4. **Land Resources**

✅ **Board Focus Area**: *Land use pattern and land degradation causes*

- India's total geographical area: **3.28 million sq. km**.
- **Landforms**:

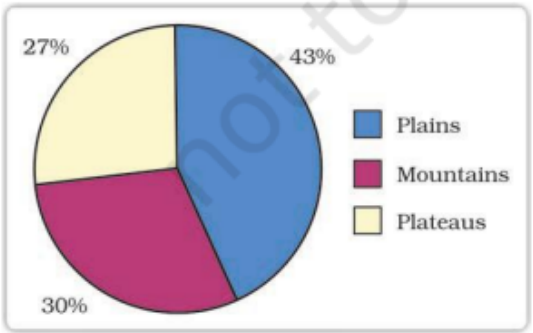


Fig 1.3: India : Land under important Relief Features

  - Plains – 43% (suitable for farming, settlement).
  - Plateaus – 27% (rich in minerals).
  - Mountains – 30% (rivers, forests, tourism).

🔹 5. **Land Use in India**

✅ **Common CBSE Question**: *Why has forest cover not increased much since 1960–61?*

Land Use Categories:

1. **Forests**
2. **Non-agricultural use**: buildings, roads.
3. **Barren land**: rocky, arid, desert.
4. **Permanent pastures**
5. **Miscellaneous tree crops**
6. **Fallow land**: temporarily uncultivated.
7. **Net sown area (NSA)**: land used for crops.
8. **Gross cropped area**: NSA + area sown more than once.

- **Problem**: Forest cover still below target (33% as per Forest Policy, 1952).

🔹 6. Land Degradation and Conservation

✅ **Often Asked**: *Causes and prevention of land degradation*

Causes of Land Degradation:

Cause	Areas Affected
Deforestation	Jharkhand, Odisha, Chhattisgarh
Overgrazing	Gujarat, Rajasthan
Mining	Madhya Pradesh, Odisha
Over-irrigation	Punjab, Haryana → waterlogging, salinity
Industrial waste	Many urban areas

Conservation Measures:

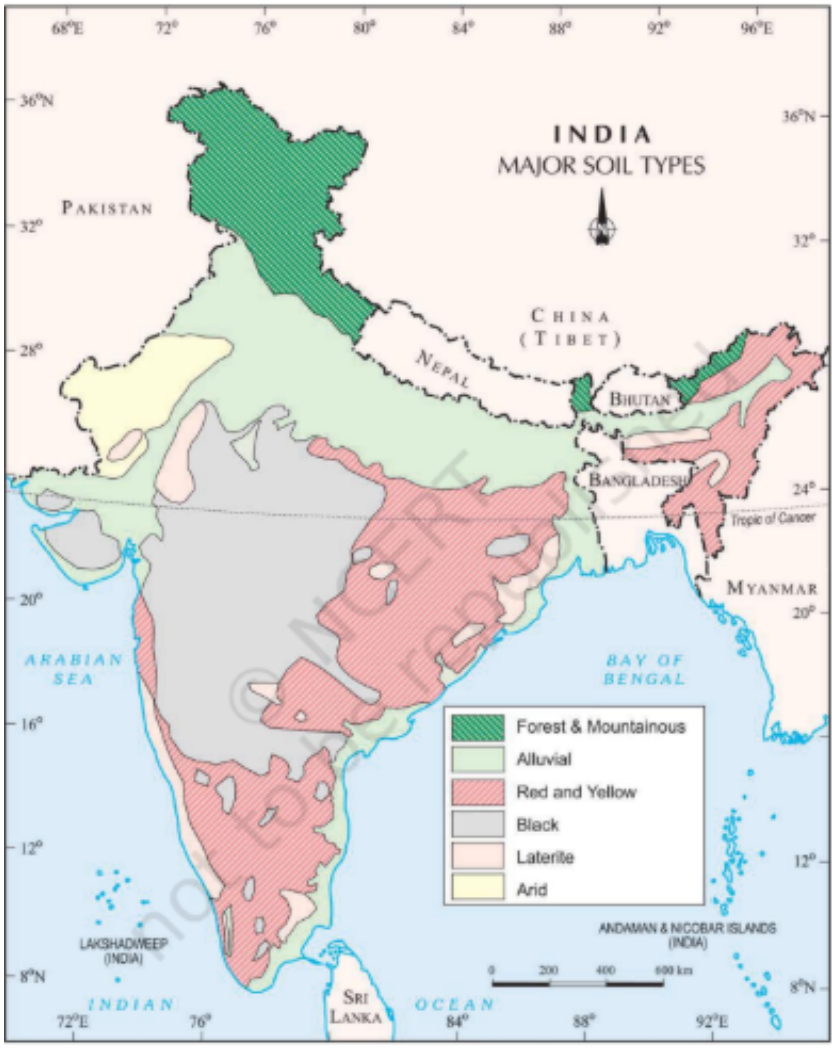
- **Afforestation**
- **Shelter belts (trees along borders)**
- **Terrace farming** (on hills)
- **Contour ploughing**
- **Regulating overgrazing**
- **Proper waste treatment**

🔹 7. Soil as a Resource

✅ **Repeatedly Asked**: *Types of soil, their features and crops*

- **Soil formation factors**: Relief, rock type, climate, vegetation, organisms, and time.
- **Soil profile**: Topsoil → Subsoil → Weathered rock → Bedrock

🔹 8. **Types of Soils in India**



Soil Type	Features	Regions	Crops
Alluvial	Most fertile, formed by rivers	Indo-Gangetic plains, coastal deltas	Rice, wheat, sugarcane
Black (Regur)	Cotton soil, retains moisture	Deccan trap (Maharashtra, MP)	Cotton
Red & Yellow	Formed from igneous rocks, less fertile	Odisha, Chhattisgarh	Pulses, millets
Laterite	Leached, acidic, poor nutrients	Kerala, Karnataka, TN	Tea, coffee, cashew
Arid	Sandy, saline, poor in humus	Rajasthan	After irrigation → wheat, barley
Forest Soil	Found in mountains, acidic	Himalayas, NE India	Good in valleys

🔹 9. **Soil Erosion and Conservation**

✅ **Frequently Asked**: *What is soil erosion? Methods to conserve soil?*

Types of Soil Erosion:

- **Gully**: Deep channels (e.g., Chambal ravines):-

- **Sheet**: Thin layer washed away
- **Wind erosion**: In deserts, dust blown away

Soil Conservation Methods:

- **Contour ploughing**
- **Terrace farming**
- **Strip cropping**
- **Shelter belts** (tree rows to stop wind)

✅ CBSE Focus: Repeated Topics in Board Exams

Topic	Frequently Asked Questions
Resource classification	Define and classify resources
Sustainable development	What is Agenda 21? Why is it important?
Resource planning	Why is resource planning necessary?
Land degradation	Causes and conservation methods
Soil types	Name and describe types, crops suited
Soil erosion	Meaning and soil conservation measures