

**Explanation on Need and Means for Resource Planning**

Resource planning is the wise, judicious and proper utilization of resources.

Resource planning is important as:

- (i) planning will help in reducing irrational consumption and over-utilisation of resources.
- (ii) proper planning for the conservation of resources will take care of the requirements of future generations.

In a country like India, resource planning is important for sustainable development as the resources are not distributed properly. For example; many states are rich in mineral and deficient in other resources. Jharkhand is rich in minerals, but the state lacks basic amenities such as drinking water and other facilities.

Resource planning was emphasised in the first Five-year Plan introduced in India by the then Prime Minister Jawaharlal Nehru. On 9 July, 1951, Jawaharlal Nehru presented the first five-year plan to the Indian Parliament. The Five-Year Plans were a formal model of planning adopted by the Indian government after Independence, for an effective and balanced utilization of resources. Resources can contribute in proper development only with a good planning, keeping in mind the technology skills and institutions.

**More Explanation on Minerals**

About 4000 minerals exist on the Earth's surface. Some of the main features of minerals include:

- They are usually solid and inorganic and formed naturally by geological processes.
- Their chemical structure is the same as their atomic design.
- They have a crystalline structure which is due to their closely packed atoms.

The study of minerals is called Minerology. Minerals can be metallic and non-metallic. Metallic minerals could contain iron and could be without iron as well. In India, the major iron ore belts are:

- Durg-Bastar-Chandrapur Belt
- Maharashtra-Goa Belt
- Odisha-Jharkhand Belt

Minerals are most commonly found on earth's surface in the form of "ores" and mineral reserves. An Ore is a natural rock or sediment that contains valuable minerals, typically metals. The ore is extracted through mining. After extraction it is treated and refined by the process of smelting. The oceanic waters also contain vast quantities of minerals.

Minerals are an indispensable part of our lives. Almost everything we use, from a tiny pin to a towering building or a big ship, all are made from minerals. The railway lines and the tarmac (paving) of the roads, our implements and machinery too are made from minerals. Cars, buses, trains, aeroplanes are manufactured from minerals and they run on power resources derived from the earth. Even the food that we eat contains minerals. In all stages of development, human beings have used minerals for their livelihood, decoration, festivities, religions and ceremonial rites.

