

BA/BSc 6th SEMESTER (GENERAL)

PAPER 601: ECONOMIC, POLITICAL AND ENVIRONMENTAL GEOGRAPHY

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Unit 2: Geography of Resources

Concept of Resources and Classification

The term 'resource' refers to two separate words —'re' and 'source' —that indicate any thing or substance that may occur unhindered many more times. Eminent professor of economics Erich W. Zimmermann promulgated his famous "Concept of Resource", the idea became so popular that numerous articles and papers started pouring in the contemporary Economic Geographical literature. According to Prof. Zimmermann's inimitable definition runs: "The word resource does not refer to a thing or a substance but to a function which a thing or a substance may perform or to an operation in which it may take part, namely, the function or operation of attaining a given end such as satisfying a want. In other words, the word resource is an abstraction reflecting human appraisal and relating to a function or operation". So, resource satisfies individual human wants or attains social objectives. It also refers to the positive interaction between man and nature. Man is, of course, the most important and integral part of resource creation, as he is situated in the top of the hierarchy of resource consumption. Only the satisfaction of human beings converts anything or a substance into resource. A thing or substance is not considered as resource when it fails to give satisfaction to human beings. Proven reserves of petroleum in the midst of inaccessible terrain or in the abyss are not considered resource as they fail to yield any satisfaction to either society or individual. Geo-thermal energy in this contemporary world is considered to be the most useful resource, but, till recently, this heat-flow was not considered as resource—because man was absolutely ignorant about its uses. Resource must possess two important properties i.e. Function ability and Utility. To define anything or substance as resource, one must critically examine whether it has the property of either utility or function ability. The presence of both utility and function ability is mandatory for resource creation.

Classification of resources

A. Biotic resources: These resources include all living elements of the environment. Forests and forest products, crops, birds, wildlife, fishes and other marine lives are the examples of biotic resources. These resources reproduce and regenerate themselves, hence, are renewable. Coal and mineral oil are also biotic resources but they are non-renewable.

Abiotic resources: These resources include all non-living elements of the environment. Land resources, water resources, air (atmospheric resources) and minerals resources e.g., iron, copper, gold, silver etc are abiotic resources. They are **exhaustible and non-renewable** as they cannot be regenerated or reproduced.

B. Non-renewable resources: They are formed over very long geological periods. Minerals and fossils are included in this category. Since their rate of formation is extremely slow, they cannot be replenished, once they are depleted. Out of these, the metallic minerals can be re-used by recycling them, but coal and petroleum cannot be recycled.

Renewable resources: Resources such as forests and fisheries, can be replenished or reproduced relatively quickly. The highest rate at which a resource can be used sustainably is the sustainable yield. Some resources, like sunlight, air, and wind, are called perpetual resources because they are available continuously, though at a limited rate. Their quantity is not affected by human consumption. Many renewable resources can be depleted by human use, but may also be replenished, thus maintaining a flow. Some of these, like agricultural crops, take a short time for renewal; others, like water, take a comparatively longer time, while still others, like forests, take even longer. Dependent upon the speed and quantity of consumption, over-consumption can lead to depletion or total and everlasting destruction of a resource. Important examples are agricultural areas, fish and other animals, forests, healthy water and soil, cultivated and natural landscapes. Such conditionally renewable resources are sometimes classified as a third kind of resource, or as a subtype of renewable resources. Conditionally renewable resources are presently subject to excess human consumption and the only sustainable long term use of such resources is within the so-called zero ecological footprint , wherein human use less than the Earth's ecological capacity to regenerate.

C. Human Resources: Human resources refer to the talent or highly skilled labor a population has to offer society, like the number of carpenters or doctors or engineers or welders, etc.

Natural Resources: Anything and everything that is available naturally on earth is a natural resource. Natural resources refer to the amount of animals, crops, minerals, fresh water, rain, sunshine, oil, lumber, creeks & rivers, and any other naturally occurring objects that the land might contain.