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(1) Defining sustainability for renewable resources

The term 'sustainable development' was first used by the 'would conservation strategy presented by the international union for the conservation of nature and natural resources in 1918.

According to the Brundtland Report, sustainable development means meeting the needs of the present generation without compromising the needs of the future generation.

Thus, sustainable development refers to development which should keep going. It is creation of sustainable improvements in the quality of life all the people. In other words, it is a situation, in which economic development doesn't decrease over time. It contributes to the quality of life through improvement for natural environments.

The main objectives of sustainable development are follows

(i) Creation of sustainable improvements for the quality of life.

(ii) Increasing economic growth through meeting basic needs.

(iii) Promoting international equity.

(iv) Aiming at international benefits of economic development subjects to maintain in the stock of all environmental and natural resources.

Natural resources exist naturally without any human intervention. Those natural resources which can be renew or replenished easily are called renewable natural resources. On the other hand, those resources can't be renew or replenished within a short span of time is called non-renewable natural resources. Resources determine the economy of an area, With proper utilization of resources, a country can sustain the resources for future generation.

Though the renewable resources re-created or replenished but not all the renewable resources are sustainable. For example, Nuclear energy is considered power plans, are not renewable resources like solar energy and wind will be available for the same purpose, in decades to come. This means that they are not only renewable but also sustainable.

On the other hand, we are not sure about the availability of resources like water. Because the current situation of global warming and climate change are posing threats to water bodies like rivers and dams. Thus some resources are sustainable and some are not.

6/5/21

(1) A brief history of environmental change.

Environmental change is a broad topic that includes predictic change in earth's environment cause by natural forces in combination with the effect of various human activities. Although environmental change is a process that has continued since earth's formation that is almost 4.6 billions years ago, over the most recent 200 years, the human activities has emerged as an important factor leading to global and national environment change.

Carbon is the key to understand environmental and climate change. Carbon is taken one by the plant respiration, and it is expell when an animal or human being exhales. When combine with hydrogen, it forms a hydrocarbon, which can be burn by industry and vechicle to produce heat and energy. It is the key element in two of the most important green house gasses that Carbon-dioxide (CO_2) and Methyl (CH_4). In 1896, a Swedish chemist created a model that considered the influence of CO_2 in the atmosphere and it was found that if the quality of CO_2 increases or decreases in geometric progression, temperature will also increase or decrease in arithmatic progression. Since the time, the CO_2 consentration of the atmosphere has increase more than 70%, from 280-290 parts per millions to more than 400 parts per million by 2016. With such a dramatic rise in CO_2 consentration over such a short period of time scientists fear that it will be only a matter of time before air temperature s rise and people starts to experience the results.

As a result controlling carbon emissions as well as emissions of other green houses gasess, has becone a global priority. The 2015 Paris Agreement, similar to the 1997 Kyoto Agreement is design to control and reduced green house gas consentration in the atmosphere. The main goal of Paris Agreement was to provide a legal mechanism with which country would.

set strict green house gas emission targets to keep the temperature of earth lower.

9/5/22

(1) Common-pool resources

A common pool resource is a good that function as a hybrid between a public good and a private good because it is available to everyone but also scarce with limited supply. The value of a common pool resource can be reduce through overuse because the supply of the resource is not unlimited, and overused, lead to scarcity. The overused of common-pool resource in result it the problem of tragedy of the commons.

Like public good, common pool resource are not excludable. However unlike public goods, common-pool resources are rivalous in consumption, similar to private goods. Being rivalous consumption means that when someone consumptes a unit of the good, then that unit is no longer available for others to consume all consumers are rivals competing for the good and each person consumption substracts from the total stock of the good available. A good that is not excludable means it is almost impossible to exclude or prevent some one from consuming that good. The combination of these two characteristic that is non-excludability and rivalry consumption means that common pool resources are prone to overuse and congation that is why these leads to the problem of the tragedy of the common when every individual tries to read the greatest benefits from a given resources.

Examples of common-pool resources include forest, irregation system, fishing, brewols and ground water basin. A fisherman has an insentive to harvest as many fish as possible, because if he doesn't do, someone else will do. So without management regulation, fish stocks soon become depleted. And while a riven might supply many cities with drinking water, industries might be tempted to

pollute rivers if they were not prohibited from doing so by the law because some one else would bear the cost.

(2) The tragedy of the commons — The term tragedy of common was first used by G. Hardine to describe of the problem of common-pool resources.

The original version of the common, a herdsman grazes it cattle on the green grass in a common meadow. A second herdsman, upon seeing the green grass, figures that it will be best for his herd to also graze there. For even more herdsman decide that it is also best for them to let their cattle graze in the meadow. However, by it is acting in their own self interest, all of the grass is depleted and there is nothing left to feed any of the cattle.

10/5/21

(1) Economic activity and climate change

The term climate change refers to change in the long term patterns of behaviour of the atmosphere as a result of natural process on human activity. Climate is different from weather, which is the specific behaviour of the climate at a particular time. The most important variables that make up the climate are temperature, rainfall, snow, wind direction and speed, atmospheric pressure, humidity and hours and intensity of sun light.

An economic activity is a process that leads to the manufacture of a good or the provision of a service. An economic activity takes place when resources such as capital goods, labour, manufacturing techniques are combined to produce specific goods or services. Thus, an economic activity is characterise by an input of resources, a production process and an output of product.

The economic activity in general and the process of rapid Industrialization in particular have been causing massive environmental

damage all over the world. Most of the environmental and ecological damage leading to climate change is irreversible. As we all know that environmental resources are the basis of all kind of economic activities and development. Environment provides land, water, air, energy resources, forests, minerals and so many other natural resources which are essential for the economic development activities. It also provide us different services which are directly use by consumers. However, for the sack of rapid development these natural resources are being over utilize leading to environmental damages in the form of water pollution, air pollution, soil degradation, forestration, loss of bio-diversity which ultimately leading to climate change. Thus, economic activities of the human beings are one of the main reason for recent climate change that has been facing by the entire world.

The climate change has also its serious impact on the economic activity. Now a days it is considered as one of the biggest threat to economic stability. Heat waves make us less able to work and reduce our productivity. Frequent occurance of hurricans, cyclones and typhoons devasted millions of people leaving them in absolute poverty. Droughts destroys harvest leading to shortage of food and hunger of world population. Again climate change has serious health implications. Increasing temperature leads to the rise of water borne and food borne diseases. Extreme weather and climate related natural disasters can increase mental health issues also.

Climate change also has serious impact on businesses and financial market. Extreme weather can damage factories, supply chain operations and other infrastructures and disrupt transport. Droughts make water more expensive which will affect the cost of raw materials and production.

Thus, from the above discussion we can say that economic activity leading to climate change has serious impact on the economy in general.