Environmental Goods

Environmental goods are typically non-market goods, including clear air, clean water, landscape, green transport infrastructure (footpaths, cycle ways, greenways, etc.), public parks, urban parks, rivers, mountains, forests, and beaches. Concerns with environmental goods focus on the effects that the exploitation of ecological systems have on the economy, the well-being of humans and other species, and on the environment.

Environmental Quality

Environmental quality is a set of properties and characteristics of the environment either generalized or local, as they impinge on human beings and other organisms. It is a measure of the condition of an environment relative to the requirements of one or more species and to any human need. Environmental quality has been continuously declining due to capitalistic mode of functioning. Environment is a pure public good that can be consumed simultaneously by everyone and from which no one can be excluded. A pure public good is one for which consumption is non-revival and from which it is impossible to exclude a consumer. Pure public goods pose a freerider problem. As a result, resources are depleted.

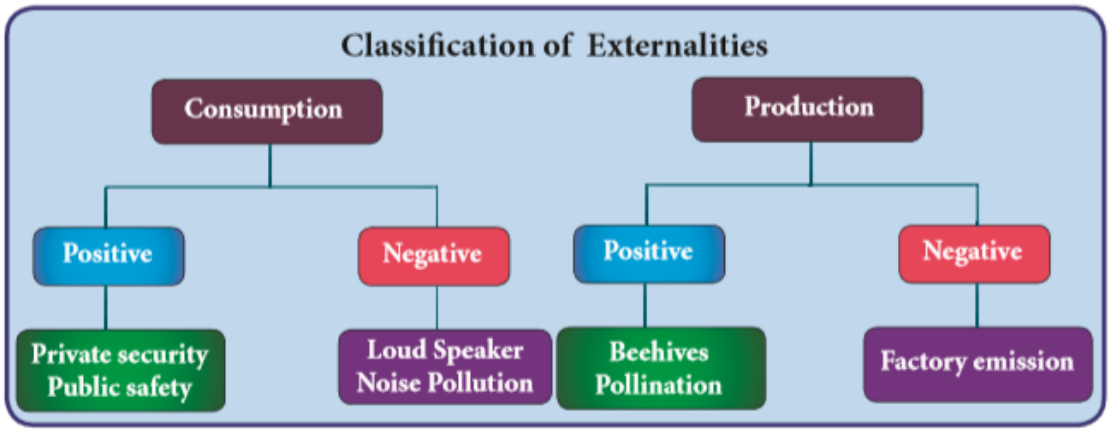
The contribution of the nature to GDP as well as depletion of natural resources are not accounted in the present system of National Income Enumeration. Externalities and the environment Introduction In Environmental Economics, one of the most important market failures is caused by negative externalities arising from production and consumption of goods and services. Externalities are third party effects arising from production and consumption of goods and services for which no appropriate compensation is paid. Externalities occur outside of the market i.e. they affect people not directly involved in the production and consumption of a good or service. They are also known as spill-over effects.

Meaning of Externalities

Externalities refer to external effects or spillover effects resulting from the act of production or consumption on the third parties. Externalities arise due to interdependence between economic units.

Definitions

Externality may be defined as “the cost or benefit imposed by the consumption and production activities of the individuals on the rest of the society not directly involved in these activity and towards which no payment is made”. The externalities arise from both production and consumption activities and their impact could be beneficial or adverse. Beneficial externalities are called “positive externalities” and adverse ones are called “negative externalities”.



Positive Consumption Externality

When some residents of a locality hire a private security agency to patrol their area, the other residents of the area also benefit from better security without bearing cost.

Negative Consumption Externality

A person smoking cigarette gets may gives satisfaction to that person, but this act causes hardship (dissatisfaction) to the non-smokers who are driven to passive smoking.

Positive Production Externality

The ideal location for beehives is orchards (first growing fields). While bees make honey, they also help in the pollination of apple blossoms. The benefits accrue to both producers (honey as well as apple). This is called 'reciprocal untraded interdependency. Suppose training is given for the workers in a company. If those trained workers leave the company to join some other company, the later company gets the benefit of skilled workers without incurring the cost of training.

Negative Production Externality

The emissions and effluents of a factory cause air and water pollution. Water becomes contaminated and unfit for drinking e.g. Tanneries. The innocent community bears the external cost for which it is not compensated.

Pollution

Meaning

Pollution is the introduction of contaminants into the natural environment that causes adverse change, in the form of killing of life, toxicity of environment, damage to ecosystem and aesthetics of our surrounding.

Types of Pollution

1. Air pollution
2. Water pollution
3. Noise pollution

4. Land pollution

Air Pollution

Definition

"Air pollution is the presence of any solid, liquid, or gaseous substance in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment". -The Air (Prevention and Control of Pollution) Act, 1981

Types of Air pollution

Indoor Air Pollution: It refers to toxic contaminants that we encounter in our daily lives in our homes, schools and workplaces. For example, cooking and heating with solid fuels on open fires or traditional stoves results in high levels of indoor air pollution.

Outdoor Air Pollution: It refers to ambient air. The common sources of outdoor air pollution are caused by combustion processes from motor vehicles, solid fuel burning and industry.

Causes of Air Pollution

1. **Vehicle exhaust smoke:**

Vehicles smoke happens to release high amounts of Carbon monoxide. Millions of vehicles are operated every day in cities, each one leaving behind its own carbon footprint on the environment.

2. **Fossil fuel based power plants:**

Fossil fuels also present a wider scale problem when they are burned for energy in power plants. Chemicals like sulphur dioxide are released during the burning process, which travel straight into the atmosphere. These types of pollutants react with water molecules to yield something known as acid rain.

3. **Exhaust from Industrial Plants and Factories:**

Heavy machineries located inside big factories and industrial plants also emit pollutants into the air.

4. **Construction and Agricultural activities:**

Potential impacts arising from the construction debris would include dust particles and gaseous emissions from the construction sites. Likewise, using of ammonia for agriculture is a frequent by product that happens to be one of the most dangerous gases affecting air.

5. Natural Causes:

Earth is one of the biggest polluters itself, through volcanoes, forest fires, and dust storms. They are nature-borne events that dump massive amounts of air pollution into the atmosphere.

6. Household activities:

Household activities like cooking, heating and lighting, use of various forms of mosquito repellents, pesticides and chemicals for cleaning at home and use of artificial fragrances are some of the sources that contribute to air pollution.

Effects of Air Pollution

Respiratory and heart problems:

It creates several respiratory and heart ailments along with cancer. Children are highly vulnerable and exposed to air pollutants and commonly suffer from pneumonia and asthma.

Global warming:

Increasing temperature in the atmosphere leads to global warming and thereby to increase sea level rise and melting of polar icebergs, displacement and loss of habitat.

Acid rain:

Harmful gases like nitrogen oxides and sulfur oxides are released into the atmosphere during the burning of fossil fuels. Acid rain causes great damage to human beings, animals and crops.

Eutrophication:

Eutrophication is a condition where high amount of nitrogen present in some pollutants which adversely affects fish, plants and animal species.

Effect on Wildlife:

Toxic chemical present in the air can force wildlife species to move to new place and change their habitat.

Depletion of Ozone layer:

Ozone exists in earth's atmosphere and is responsible for protecting humans from harmful ultraviolet (UV) rays. Earth's ozone layer is depleting due to presence of chlorofluorocarbons and hydro chlorofluorocarbons in the atmosphere.

Human Health:

Outdoor air pollution is a major cause of death and disease globally. The health effects range from increased hospital admissions and emergency room visits, to increased risk of premature death. An estimated 4.2 billion premature deaths globally are linked to ambient air pollution.

Remedial measures to control Air Pollution

1. Establishment of industries away from the towns and cities
2. Increasing the length of the Chimneys in industries
3. Growing more plants and trees
4. Use of non-conventional fuels like Biogas, CNG and LPG.
5. U se of Mass Transit System (Public Transport).