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* Environmental Issues.

→ Human activities in past decades have raised serious issues related to environment and its conservation. Air pollution, poor management of its waste, growing water scarcity, falling ground water tables, water pollution, waste disposed, desertification, endangered species, preservation of quality of forest biodiversity loss, and land/soil degradation, Global climate change, pollution, environmental degradation, Global warming, Greenhouse effect, Acidification, Ozone depletion and other local, regional and global level environmental problems.

* Currently, The situation of environment is very poor that could never be imagined by our ancestor in previous time.

* An environmental problem occurs when there comes a change in quality or the quantity of the environmental factor that directly or indirectly affect everything on Earth.

" Environmental issues are defined as problem with the planet's system (air, water, soil etc) that have developed as a result of human interference or mistreatment of the plant. ".

→ The environmental issues can occur at three levels, local, regional and global.

Local environmental issues

1. Pollution
2. Waste Disposal
3. Desertification
4. Water Scarcity
5. Endangered Species

1. Pollution

It be defined as an undesirable addition of constituents to water, land or air which adversely affect human life, species, living conditions and will deteriorate our resources.

types- air pollution, water pollution, soil pollution, noise pollution.

Air pollution

It refers to any physical, chemical and biological change in the air. It is contamination of air by harmful gases, dust and smoke which affect plant, animals and human.

Major Air pollutants, their sources and Impact

→ Carbon Monoxide (CO) : fuel combustion from engines and vehicle (major source). It reduces the amount of oxygen, causes heart diseases etc.

→ Lead (Pb) : Releases from metal refineries basically. Impact our nervous system, effects related to anemia.

→ Nitrogen Oxide : fuel combustion, wood burning. It impacts our lung, respiratory problems.

→ Sulphur dioxide : fuel combustion, volcanoes. Asthma and breathing difficulty.

(b) Water pollution

→ Contamination of pollutants in water bodies like lakes, rivers, oceans, aquifers and groundwater without treatment by human activities.

Source

→ Natural sources: decay, decomposition of plants and animals, volcanic eruptions, coastal, cliff-erosion landslides and soil erosion.

→ Anthropogenic sources: industry, urban, agricultural and cultural sources.

Effects

→ Death of Aquatic animals.
→ Irrigation by polluted water affects agriculture.
→ Diseases. hepatitis, cholera, typhoid, diarrhea etc
→ Disruption of food chain. (ecosystem).

2. Waste Disposal

The do disposal of waste material which effect the environment.

Sources

- Medical or clinical sources of waste
- Agricultural sources of waste
- Industrial sources of waste
- Wastes from construction or demolition.

Solution

→ Eco responsibility
→ Effective waste disposal and management.
→ Control and monitoring of land filling
→ Waste diversion plan.
→ ~~Europe~~ Improvement of thermal waste treatment

3. Desertification

Desertification is a type of land degradation in dry lands in which biological productivity is lost due to natural processes or induced by human activities where by fertile area become increasingly more arid. It is the spread of arid area caused by a variety of factors, such as through climate change and through the overexploitation of soil through human activity.

Various causes

→ Overgrazing
→ Deforestation
→ Farming practice
→ Excessive use of fertilizers and pesticides.
→ Over drafting of groundwater
→ climate change
→ Some other reason such as natural disasters, soil pollution, overpopulation and excessive consumption, mining etc.

Effects of desertification

→ Problem in farming
→ Flooding → Without plants/trees in an area flooding is more imminent. Not all deserts are dry, those that are wet could experience a lot of flooding because there is nothing to stop water from gathering and going all over places.
→ Biodiversity loss, endangerment and extinction of Specie
→ Migration

Solution

→ Policy changes related to how people can farm
→ Education.
→ Technology advances
→ Restricting mining practice
→ Afforestation.

4. Water Scarcity

Water scarcity involves water crisis, water shortage, water deficit or water stress. It is the lack of sufficient available water resources to meet the demands of water usage within a region.

Causes

→ Overuse of water.
→ Pollution of water
→ Global warming
→ Illegal dumping
→ Natural disaster.
→ Drought

Effects

→ lack of access to drinking water
→ Hunger and poverty
→ Diseases and sanitation issues
→ Destruction of habitats and loss of biodiversity.

Solution

→ Save water
→ Recycle water
→ Improve farming practices.
→ less use of chemicals in farming.
→ Improve sewage system.
→ Better water distribution Infrastructure.
→ Education.

5. Endangered species

An endangered species can be define as species that is very likely to be extinct in near future.

Causes

→ Destruction of habitats
→ Hunting.
→ Pollution.
→ Insufficient reproduction rate.
→ Disease
→ Conflicts between wildlife and human.

effect

→ Biodiversity and chain reaction.
→ Diseases.
→ Decrease in crop yield {pollination, chain}
→ loss of medical source
→ Economic effect (tourist)

Solution

→ Some strong Acts and Laws should be enacted and followed well like The Endangered Species Act (ESA) passed in 1973 which is responsible for saving many species formerly on the brink of extinction.
→ Learn about endangered species in your Area. Teach your friends and family about their importance.
→ Recycle and buy sustainable product. Never purchase products made from threatened or endangered species.
→ Herbicides and pesticides use should be reduced.
→ Illegal shooting, trapping or forcing into captivity should be stopped.

① Regional and Global environmental Issues

There are some regional and global environmental issues which are as follows:-

1. Global Warming.
2. Ocean acidification.
3. Pollution
4. Acid rain
5. Ozone depletion

1. Global Warming

It is the unusually rapid increase in earth's average temperature over the past century primarily due to the greenhouse gases released by people burning fossil fuels. Global warming occurs when carbon dioxide (Co_2) and other air pollutants and greenhouse gases collect in the atmosphere and absorb sunlight and solar radiation that have bounced off the earth's surface. Normally, this radiation would escape into space - but these pollutants, which can last for years to centuries in the atmosphere, trap the heat and cause the planet to get hotter. That's what known as greenhouse effect.

Causes

Natural cause of global warming.

* The climate has continuously changing for centuries. The global warming happens because the natural rotation of the sun that changes the intensity of sunlight and moving closer to the earth.
* Greenhouse gases. Greenhouse gases are carbon monoxide and sulphur dioxide it trap the solar heat rays and prevent it from escaping from the earth surface.
* Volcanic eruptions while erupting releases carbon dioxide to the atmosphere.

* Methane is another issue that causes global warming. Methane is also a greenhouse gas

Human activity

→ Industrial revolution

→ Mining - During the process of mining, the methan traps below the earth. Besides, rearing cattle will also cause methane because cattle released the form of manure

→ Defforestation.

effects

1. Polar ice caps melting. Once the ice melts the first effect will be raise on sea levels because the melting glaciers adds water to oceans

2. Species loss of habitat. Polar bears and tropical frogs ~~will be~~ are effected due to climate change.

3. More hurricanes will occur and economic consequences will be faced.

Solutions to stop/prevent Global Warming

→ We Humans and government need to move forward together.

→ To reduce gasoline mean we have a choice to choose a hybrid car that reduce using gasoline. Public transpost should be opted rather than private if possible

→ Another way is recycle. Recycle can reduce garbage, by reusing plastic bags, bottles, papers or glass.

→ Finally human should stop open burning as burning dry leafs or burning garbage.

→

Ocean Acidification

Causes

1. The burning of fossil fuels
2. Waste disposal
3. Increase in the concentration of hydrogen ions due to chemical reaction → at the sea beds, there are some chemical reactions that may take place, and they can have negative impacts on the quality of ocean water.
4. Lack of eco-friendly laws and regulations.

Effects

1. Loss of coral reefs.
2. Disturbance in food chain
3. A decrease in local economy due to lack of fish and other marine products.
4. Impact on human health.

Solutions

→ Reducing the use of fossil fuels.
→ Making strict regulations
→ Spreading the awareness to the masses and eating less meat.
→ Use of Alternative Water Source

Acid Rain

Acid rain is a broad term that includes any form of precipitation with acidic components, such as ~~sulfuric~~ sulphuric or nitric acid that fall to the ground from the atmosphere in wet or dry forms.

Causes

→ All bodies of water have acid in it, but when too much acidic chemical compounds such as sulphuric and nitric acid, formed when Sulphur Dioxide and

Nitrogen Oxide & come into contact with water and oxygen in the atmosphere, lower the normal PH of water.

→ Some natural disasters such as wildfires, lightning and volcanic eruption, which blasts pollutants into the air acting as a source of acid rain forming gases.

→ Human based sources such as factories, power generation facilities, oil refineries and automobiles are the primary contribution to chemical gases.

→ These compound pollutants can be blown by winds or carried in jet stream around the world and turned into acid in presence of water and oxygen.

* Effects

→ Essential nutrients in soil such as calcium and magnesium, which are essential for trees to survive are dissolve as a result of acid rain seepage into the soil.

→ Water bodies and acquatic environments are affected.

→ Cause direct health problems for human.

→ It leaves irreplaceable damage on old heritage buildings.

Solution

→ Government plays a major role in focusing on more sustainable energy sources, such as solar, wind and water energy and putting restrictions on the use of fossil fuels.

→ The biggest step to prevent acid rain is to conserve energy. Public transportation should be used.

→ Power plants need to do their part as well. Washing coal to remove some of the sulphur or using coal comprised of low sulphur are some actions that can be done.

Ozone layer Depletion

Ozone layer Depletion is the thinning of the ozone layer present in the upper atmosphere. This happens when the chlorine and bromine atoms in the atmosphere come in contact with ozone and destroy the ozone molecule. Some compounds ~~etc~~ release chlorine and bromine on exposure to high ultraviolet light, which then contributes to the ozone layer depletion. Such compounds are known as ozone Depleting Substances (ODS). Chlorofluorocarbons are the most abundant ozone depleting substances.

Causes

1. Chlorofluorocarbons → They are released by solvents, spray aerosols, refrigerators, air-conditioners etc.
2. The molecules of chlorofluorocarbons in the stratosphere are broken down by the ultraviolet radiation and release chlorine atoms. These atoms react with ozone and destroy it
2. Unregulated Rocket launches →
3. Nitrogen compounds -
4. Natural cause → Sunspots and stratospheric winds.

Effects

→ Effect on Human Health? [serious health issues like skin diseases, cancer, sunburn cataract, etc may occur]
→ Effects on Animals → [skin and eye cancer in animals]
→ Effects on the Environment → [minimal growth, flowering and photosynthesis in plants]
→ Effects on Marine Life → Planktons are greatly affected by the exposure to harmful ultraviolet rays. Food chain gets disturbed.

Solutions

→ Avoid using Pesticides → Natural methods should be implemented to get rid of pests and weeds instead of using chemicals.

→ Minimize the use of vehicle → The vehicle emits a large amount of greenhouse gases that leads to global warming as well as ozone depletion

→ Use Eco-friendly cleaning Products - Most of the cleaning products have chlorine and bromine releasing chemicals that find a way into the atmosphere.

→ The use of Nitrogen Oxide should be Prohibited The government should take actions and prohibit the use of harmful nitrous oxide that is adversely affecting the ozone layer.

→ People should be made aware of the harmful affects of nitrous oxide and the problem products emitting the gas.

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