

GOVERNMENT GENERAL DEGREE COLLEGE
SINGUR

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TOPIC - URBAN POLLUTION AND
ITS ADVERSE EFFECT ON SOCIETY

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- i) Chayya Biology text book class XII for data and information
- ii) Santxa Biology text book class XII for data and information.
- iii) Google Chrome for data, picture and photos.
- iv) Wikipedia for photographs and informations.

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1. Introduction:-

In modern times pollution has become the biggest menace for the survival of the biological species. There are various types of pollution like air pollution, water pollution, soil pollution, sound pollution etc. Generally the environment is more polluted in urban areas than in rural areas. Our earth was a beautiful landscape but man has ruthlessly exploited for his greed specially, in the last century. With rapid urbanization and hansom industrialization our environment is being polluted and it is a very serious problem. Over exploitation of open spaces, increasing number of automobiles and the demographic pressure have further agghavated the burning problem. Especially the polluted water are affecting of water bodies and burning of coals and woods in the industries and households in urban cities are the major source of air pollution which affects air quality and human health.

2. Types of pollution:-

There are several types of pollution and they may come from different sources and have different consequences, understanding the basics of pollution can help environmentally conscious individual minimize their contribution to these dangers.

There are certain basic types of pollution and each one has detrimental effects on wildlife, human habitation, and the quality of life in the affected area.

i) Air pollution:-

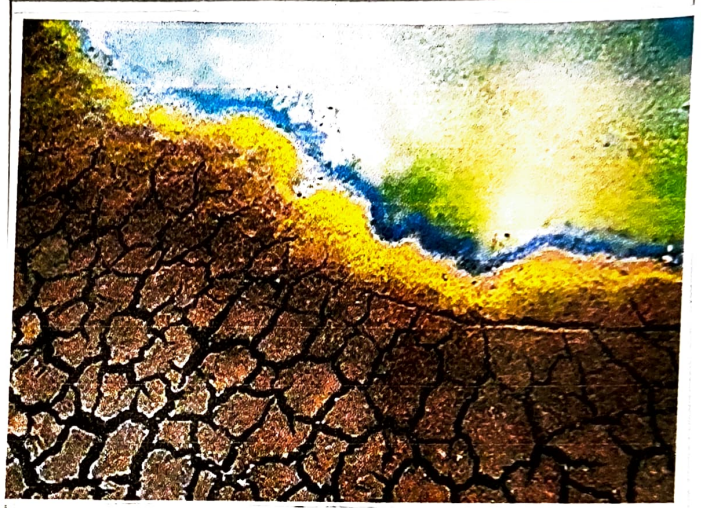
Air pollution is defined as any contamination of the atmosphere that disturbs the natural composition and chemistry of air. This can be in the form of particulate matter such as dust, of excessive gases like carbon dioxide ~~or~~ or other vapors that cannot be effectively removed through natural cycles. Air pollution comes from a wide variety of sources like:



vehicle of manufacturing exhaust, dry soil eruptions and other sources, Building construction or increase of population or demolition, it causes rain acidity, and affects on human health.

ii) Soil pollution:-

soil or land pollution is contamination of the soil that prevents natural growth and balance whether it is used for cultivation habitation or wildlife preserve. some soil pollution sources are hazardous waste and urban sewage spills.



Strip mining, Household dumping and deforestation

soil pollution can lead to poor growth and reduced crop yields, loss of wildlife habitat, soil erosion and desertification.

iii) water pollution:-

water pollution involves any polluted water, it can be from chemical industry, and some other sources like household, road etc. otherwise some pollutant like plastics, bacterial particles ~~can~~ causes water pollution. water pollution can occur in oceans, rivers, lakes and as different water ~~sources~~ sources.

causes of water pollution are:-

Increased sediment from soil erosion, Improper waste disposal and littering, Pouring chemical wastes from industries, Organic material decay in water supplies.



Because of water pollution the quantity of drinking water is decreasing, ~~low~~ water supplies for cultivation is lowering, and it is affecting ~~of~~ on fish and other wildlife population that require water of certain purity for survival.

iv) sound pollution:-

sound pollution refers to undesirable levels of noise caused by human activity especially occurs in urban areas. because of traffic, Airport, Railroads, Industries, construction or concerts Effects may include hearing loss, wildlife



disturbances, and a general degradation of lifestyle.

v) Radioactive pollution:-

It is ~~a~~ one type of pollution that is rare but extremely deadly.

source of radioactive pollution are:- Nuclear power plant accidents or leakage, improper nuclear waste disposal uranium mining, nuclear weapons,

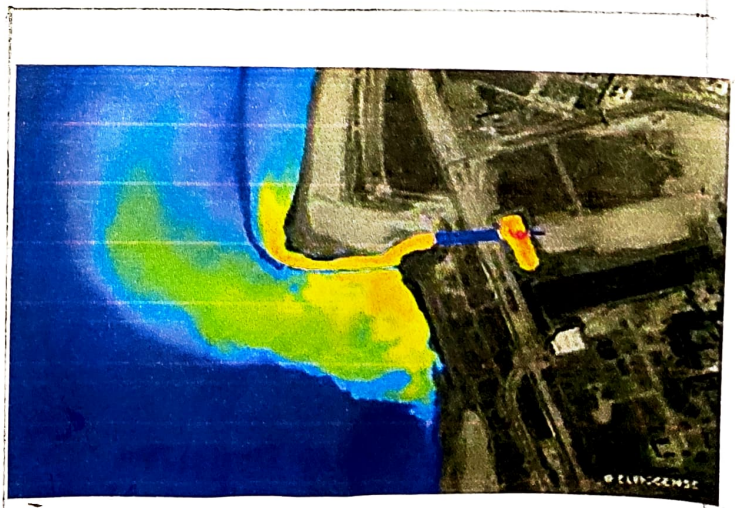


It causes cancer, birth issues, other health problems for human and wild life. It can also sterilize the soil and contribute to water and soil pollution.

vi) Thermal pollution:-

Thermal pollution is excess heat that affects over long period in a greater geographic area.

sources are :- Power plant, urban sprawl, loss of temp. of water supplies, deforestation, it affects on wildlife very much.



3. Pollutants from urban sources and their effects on earth:-

Modernization and progress have led our world to getting more polluted nowadays. Urbanization is one of major factors. Industries, factories, vehicles, deforestation are responsible for pollution. Thermal power plant, cement, steel, petrochemical, industries takes a great part to pollute the world. Some major industrial pollutants are listed below,

CO:

Carbon monoxide is generally known as CO it is colourless, odourless gas, produced by incomplete burning of carbon based fuels, like petrol, diesel, woods, It can slow down our reflexes and make us confused and sleepy.

CFC:-

Chlorofluorocarbons are released mainly from AC or refrigerations. In stratosphere CFC along with other gases affects to ozone layer, that some harmful rays like UVR are entering in earth's atmosphere.

CO₂:-

Carbon dioxide is the leading greenhouse gas that causes earth's atmosphere is getting hotter day by day.

Pb:-

Lead is present in batteries, paint, and many other products. It affects on children in particular. It can cause damage of nervous system, and kidneys.

NO:-

Nitrogen oxide causes smog and acid rain. It is produced from burning carbon based fuels. It affects on children, ^{causes} respiratory diseases.

SO₂:-

Sulphur dioxide is a gas produced from burning coal, mainly in thermal plants. Some industrial process such as production of paper and melting of metals produce SO₂. It is a major contributor to smog and acid rain. It causes lung diseases also.

SPM:-

Suspended particulate matter consists of solid in the air from smoke, dust, vapour; it is also main source of haze, which reduces visibility. It also causes lung problems and respiratory problems.

4. Effects of urban pollution on society :-

i) Effects on human:-

There is a number of serious health consequences that can result from unchecked pollution. The inhalation of gases released by industries, factories and power plants can cause breath difficulties.

and they are also poisonous in large quantities if the air is restricted, many chemicals and substances used in factories have put people working in these places at an

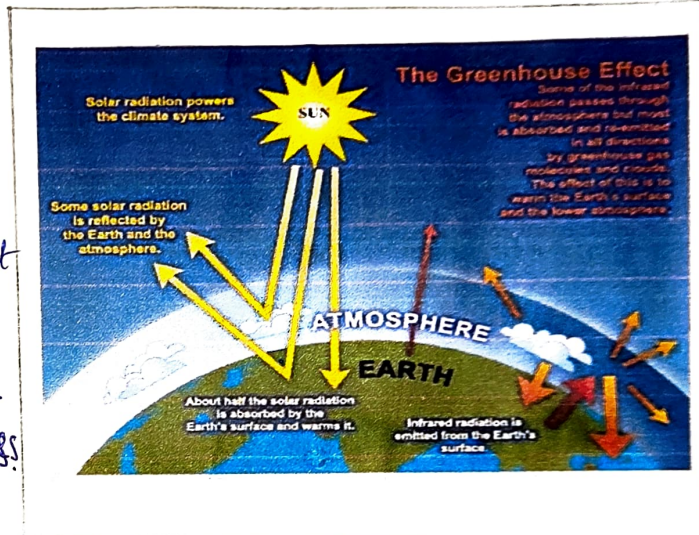


increased risk for developing certain types of cancers. Health hazards from asbestos dust have also been recognized in many workers, or, Minamata disease is a neurological disease caused by mercury poisoning, In 1984 leakage of MIC gas created a toxic cloud over the city and killed thousand and injured lakhs. In 1986 a nuclear disaster took place in chernobyl caused health problem of lakhs of citizens.

ii) Effects on atmosphere:-

Some harmful gases combine with moisture in atmosphere and produce acid which returns to earth as rain drops. This acid rain harms wild lives and plants. It also damages building too. These problems are particularly severe in some of the industrialized urban regions only.

Some gases are making world warmer like CO₂ that trap the sun rays which is called green house effect. The amount of oil and gas burned has steadily increased over the last few decades as a result of rapid



industrialization and urbanization, giving off more harmful gases. This means that more of the sun's heat is trapped in atmosphere causing the temperature of the planet to rise. Scientists fear that ice from the poles and mountains will melt that will cause a rise in sea level and flooding at coastal areas. Some gases like CFC and HCFCs are destroying ozone layer that shields ~~the~~ the earth from ~~harmful~~ harmful rays. Because of it the global climate is changing.

5. conclusion:-

All type of pollution has their kind of negative impact on our environment. The lives of humans and animals get impacted due to this. It is our responsibility to take various initiatives to protect nature. We all need to fight against pollution to take steps towards a better tomorrow. Reducing pollution requires environmental, political, economic leadership. Developed nations must work to reduce ~~any~~ and recycle their materials. Developing nations must work to strengthen their economies without destroying nature. We all must work together towards the common goal of protecting the environment.

