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Environmental Issues: Local, Regional and Global Environmental Issue

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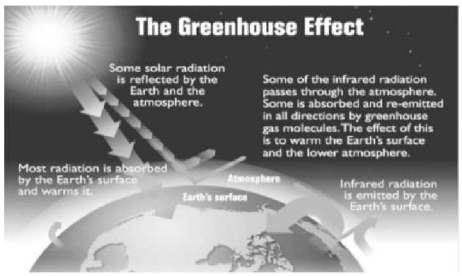
Environment :- The word environment refers to all ecological units which are naturally present on earth in the form of land, water, air, soil, forest, sunlight, minerals, living organisms etc. This earth is full of natural surroundings, some are biotic and some are non- biotic. Biotic element are those elements like human, birds, animals, plants, and microorganisms. Whereas non-biotic elements are those which have no life like air, sunlight, water, land, soil, minerals etc. further it is also divided among four different sphere viz. biospheres, lithosphere, atmosphere and hydrosphere. In which hydrosphere is the largest part on the earth among all life on earth has become possible due to some kind of action and reactions between different kinds of resources that are present in environment. Currently, the situation of environment is very poor that could never be imagine by our ancestor in previous time. Use of natural resources should be carefully planned and executed. For providing a better and healthy life to our forth coming generation.

Details of Some major environmental issues are given below -

Plastic Pollution, Agriculture, Soil Degradation, Fast Fashion and Textile Waste, Soil Degradation, Global Warming From Fossil Fuels, Poor Governance, Biodiversity Loss, Deforestation, Ocean Acidification.

Plastic Pollution :- The world produced more than 2 million plastics per year, this annual production swelled to 419 million tons and exacerbating plastic waste in the environment. A report by science journal, Nature, determined that currently, roughly 14 millions make their way into the ocean. The research found that if no action is taken, the plastic crisis will grow to 29 million metric tons per year by 2040. If we include microplastics into this, the cumulative amount of plastic in the ocean could reach 600 million tons by 2040.Shockingly, National Geographic found that 91% of all plastic that has ever been made is not recycled, representing not only one of the biggest environmental problems of our lifetime, but another massive market failure. Considering that plastic takes 400 years to decompose, it will be many generations until it ceases to exist. There's no telling what the irreversible effects of plastic pollution will have on the environment in the long run.

Agriculture :- Studies have shown that the global food system is responsible for up to one-third of all human-caused greenhouse gas emissions, of which 30% comes from livestock and fisheries. Crop production releases greenhouse gases such as nitrous oxide through the use of fertilisers. 60% of the world's agricultural area is dedicated to cattle ranching, although it only makes up 24% of global meat consumption. Agriculture not only covers a vast amount of land, but it also consumes a vast amount of freshwater, another one of the biggest environmental problems on this list. While arable lands and grazing pastures cover one-third of Earth's land surfaces, they consume three-quarters of the world's limited freshwater resources.Scientists and environmentalists have continuously warned that we need to rethink our current food system; switching to a more plant-based diet would dramatically reduce the carbon footprint of the conventional agriculture industry.



Fast Fashion and Textile Waste :- What's more, the world at least generated an estimated 92 million tonnes of textiles waste every year and that number is expected to soar up to 134 million tonnes a year by 2030. Discarded clothing and textile waste, most of which is non-biodegradable, ends up in landfills, while microplastics from clothing materials such as polyester, nylon, polyamide, acrylic and other synthetic materials, is leeched into soil and nearby water sources. Monumental amounts of clothing textile are also dumped in less developed countries as seen with Chile's Atacama, the driest desert in the world, where at least 39,000 tonnes of textile waste from other nations are left there to rot.While these are some of the biggest environmental problems plaguing our planet, there are many more that have not been mentioned, including overfishing, urban sprawl, toxic superfund sites and land use changes. While there are many facets that need to be considered in formulating a response to the crisis, they must be coordinated, practical and far-reaching enough to make enough of a difference. The global demand for fashion and clothing has risen at an unprecedented rate that the fashion industry now accounts for 10% of global carbon emissions, becoming one of the biggest environmental problems of our time. Fashion alone produces more greenhouse gas emissions than both the aviation and shipping sectors combined, and nearly 20% of global wastewater, or around 93 billion cubic metres from textile dyeing, according to the UN Environment Programme.

Soil Degradation :- Organic matter is a crucial component of soil as it allows it to absorb carbon from the atmosphere. Plants absorb CO2 from the air naturally and effectively through photosynthesis and part of this carbon is stored in the soil as soil organic carbon (SOC). Healthy soil has a minimum of 3-6% organic matter. However, almost everywhere in the world, the content is much lower than that.According to the United Nations, about 40% of the planet's soil is degraded. Soil degradation refers to the loss of organic matter, changes in its structural condition and/or decline in soil fertility and it is often the result of human activities, such as traditional farming practices including the use of toxic chemicals and pollutants. If business as usual continued through 2050, experts project additional degradation of an area almost the size of South America. But there is more to it. If we do not change our reckless practices and step up to preserve soil health, food security for billions of people around the world will be irreversibly compromised, with an estimated 40% less food expected to be produced in 20 years' time despite the world's population projected to reach 9.3 billion people.

Global Warming From Fossil Fuels :- What's more, carbon dioxide (CO2) levels have never been so high. After being consistently around 280 parts per million (ppm) for almost 6,000 years of human civilisation, CO2 levels in the atmosphere are now well above 420 ppm, more than double what they were before the onset of the Industrial Revolution in the 19th century. According to National Oceanic and Atmospheric Administration (NOAA) Administrator Rick Spinrad, the steady annual increase is a "direct result of human activity," mainly from the burning of fossil fuels for transportation and electricity generation but also from cement manufacturing, deforestation, and agriculture.2023 was the hottest year on record, with global average temperatures at 1.46C above pre-industrial levels and 0.13C higher than the eleven-month average for 2016, currently the warmest calendar year on record. The year was marked by six record-breaking months and two record-breaking seasons. The climate crisis is causing tropical storms and other weather events such as hurricanes, heatwaves and flooding to be more intense and frequent than seen before. However, even if all greenhouse gas emissions were halted immediately, global temperatures would continue to rise in the coming years. That is why it is absolutely imperative that we start now to drastically reduce greenhouse gas emissions, invest in renewable energy sources, and phase our fossil fuels as fast as possible.

Poor Governance :- Economists and environmentalists have urged policymakers for years to increase the price of activities that emit greenhouse gases (one of our biggest

environmental problems), the lack of which constitutes the largest market failure, for example through carbon taxes, which will stimulate innovations in low-carbon technologies.

To cut emissions quickly and effectively enough, governments must not only massively increase funding for green innovation to bring down the costs of low-carbon energy sources, but they also need to adopt a range of other policies that address each of the other market failures.

Further, organisations such as the United Nations are not fit to deal with the climate crisis: it was assembled to prevent another world war and is not fit for purpose. Anyway, members of the UN are not mandated to comply with any suggestions or recommendations made by the organisation. For example, the Paris Agreement, a historic deal within the United Nations Framework Convention on Climate Change (UNFCCC), says that countries need to reduce greenhouse gas emissions significantly so that global temperature rise is below 2C by 2100, and ideally under 1.5C. But signing on to it is voluntary, and there are no real repercussions for non-compliance. Further, the issue of equity remains a contentious issue whereby developing countries are allowed to emit more in order to develop to the point where they can develop technologies to emit less, and it allows some countries, such as China, to exploit this.

Biodiversity Loss :- More broadly, a recent analysis has found that the sixth mass extinction of wildlife on Earth is accelerating. More than 500 species of land animals are on the brink of extinction and are likely to be lost within 20 years; the same number were lost over the whole of the last century. The scientists say that without the human destruction of nature, this rate of loss would have taken thousands of years.

The past 50 years have seen a rapid growth of human consumption, population, global trade and urbanisation, resulting in humanity using more of the Earth's resources than it can replenish naturally. A 2020 WWF report found that the population sizes of mammals, fish, birds, reptiles and amphibians have experienced a decline of an average of 68% between 1970 and 2016. The report attributes this biodiversity loss to a variety of factors, but mainly land-use change, particularly the conversion of habitats, like forests, grasslands and mangroves, into agricultural systems. Animals such as pangolins, sharks and seahorses are significantly affected by the illegal wildlife trade, and pangolins are critically endangered because of it.

Deforestation :- The three countries experiencing the highest levels of deforestation are Brazil, the Democratic Republic of Congo and Indonesia. The Amazon, the world's largest rainforest – spanning 6.9 million square kilometres (2.72 million square miles) and covering around 40% of the South American continent – is also one of the most biologically diverse ecosystems and is home to about three million species of plants and animals. Despite efforts to protect forest land, legal deforestation is still rampant, and about one-third of global tropical deforestation occurs in Brazil's Amazon forest, amounting to 1.5 million hectares each year. Every hour, forests the size of 300 football fields are cut down. By the year 2030, the planet might have only 10% of its forests; if deforestation isn't stopped, they could all be gone in less than 100 years. Agriculture is the leading cause of deforestation, another one of the biggest environmental problems appearing on this list. Land is cleared to raise livestock or to plant other crops that are sold, such as sugar cane and palm oil. Besides for carbon sequestration, forests help to prevent soil erosion, because the tree roots bind the soil and prevent it from washing away, which also prevents landslides.

Ocean Acidification :- Global temperature rise has not only affected the surface, but it is the main cause of ocean acidification. Our oceans absorb about 30% of carbon dioxide that is released into the Earth's atmosphere. As higher concentrations of carbon emissions are released thanks to human activities such as burning fossil

fuels as well as effects of global climate change such as increased rates of wildfires, so do the amount of carbon dioxide that is absorbed back into the sea.

The smallest change in the pH scale can have a significant impact on the acidity of the ocean. Ocean acidification has devastating impacts on marine ecosystems and species, its food webs, and provoke irreversible changes in habitat quality. Once pH levels reach too low, marine organisms such as oysters, their shells and skeleton could even start to dissolve.

However, one of the biggest environmental problems from ocean acidification is coral bleaching and subsequent coral reef loss. This is a phenomenon that occurs when rising ocean temperatures disrupt the symbiotic relationship between the reefs and algae that lives within it, driving away the algae and causing coral reefs to lose their natural vibrant colours. Some scientists have estimated coral reefs are at risk of being completely wiped by 2050. Higher acidity in the ocean would obstruct coral reef systems' ability to rebuild their exoskeletons and recover from these coral bleaching events.

Some studies have also found that ocean acidification can be linked as one of the effects of plastic pollution in the ocean. The accumulating bacteria and microorganisms derived from plastic garbage dumped in the ocean to damage marine ecosystems and contribute towards.

Weather Events :- These events pose a threat to both the environment and human populations and can cause significance damage to infrastructure, home and ways to life rising temperature and rising sea level among other factors contribute to increase in extreme weather condition. According to the world metrological organization extreme weather and climate events where responsible for 2 million and USB 4.3 trillion in economic losses between 1970 and 2021.

Water Pollution :- Earth's other water supply is also facing challenges. Safe drinking water is critical for human health however industrial waste, pesticide, and agricultural process can pollute water source the pressure, of the resulting bacteria and chemical concentration in drinking water can couch digestive problem, neurological illness, skin infection and more. More than a billion people world wind do not have access to clean water. as climate change and human action shrink the available water supply.

Conclusion :- These are having many effects on our health. water, air and soil population can cause significant adverse health consciousness in human, wild and domestic animals and plants. Environmental pollution is a contributing factor to many non-communicable diseases, including cancer and respiratory disease air pollution cause symptoms such as cough invitation and headache but in the long run it become much more dangerous. Long term exposure to air pollution can Leod to cardiovascular disease and some type of cancer.

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