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Environmental Issues

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Introduction

An Introduction to Global Environmental Issues presents a comprehensive and stimulating introduction to the key environmental issues presently threatening our global environment. Offering an authoritative introduction to the key topics, a source of latest environmental information, and an innovative stimulus for debate, this is an article for all those studying of concerned with global environmental issues. Major global environmental issues are brought into focus. Explanations of the evolution of the earth's natural systems (hydrosphere, biosphere, geosphere ecosphere) provide an essential understanding of the scientific concepts, processes and historical background to environmental issues. Cont5emproary socio-economic, cultural and political considerations are explored and important conceptual approaches such as Gain hypotheses and Chaos. Theory are introduced. Human impact and management of the natural environment, and concerns for maintaining biodiversity are emphasized throughout. The rapid growing population and economic development is leading to a number of environmental issues in India because of the uncontrolled growth of urbanization and industrialization, expansion and massive intensification of agriculture, and the destruction of forests. Major environmental issues are forest and agriculture degradation, land, resource depletion (water, mineral, forest, sand, rocks etc.), environmental degradation, public the same time, different regions do face different problems. One key distinction is between the environmental threats faced by developed nations, such as the United States and western European countries, and developing nations, such as India and Mexico. Most agree that these nations may have dissimilar crisis, but debate remains over whether the solutions to their problems are unique as well. The environmental problems faced by developed nations are largely the result of their economic strength and higher standards of living. Overconsumption is cited by many observers as a cause of resource in the First World.

Methodology

The risks inherent in gathering and interpreting observed evidence made it essential to design a methodology that allowed access to a diverse range of sources, so that data could be verified before being accepted as evidence. The methodology made different types of data. Relevant data collected from printed materials, internet, books, journals, articles and thesis etc.,

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Objectives

- To discuss the global environmental major issues
- To formulate the Problems faced by global warming and climatic changes
- To discuss the effects of global warming in India
- To discuss the climate change modeling and prediction

Global change scenarios

A brief summary of the status of global climate change predication provides a context for subsequent discussions. We rely primarily on the Intergovernmental Panel on Climate Change (78), and on McCracken et al. (106), who combine discussions of model-based predictions and pale climate records. This is a rapidly developing field. Although the detailed predictions derived from general circulation models are uncertain and subject to revision, there can be little doubt in a qualitative sense that the increased and still-increasing concentrations of radioactively active gases in the atmosphere will result in significant climate change of some sort. Under the IPCC "Business as Usual" scenario (i.e. no substantial changes in present trends in greenhouse gas emissions), global mean temperatures are predicted to increase during the next century by about 0.3C per decade (range:0.2-0.5). The net increase will amount to about 10 by 2030 and 30 by 2100. Land surfaces will warm faster then oceans, and high northern Latitudes will warm more and raster than the global mean, especially in winter. Present confidence in regional climate change predictions is low. IN the oceanic tropics, the area of most interest to this review, the predictive ability of the general circulation models is highly questionable; both between-model agreement and calibration against present conditions are poor. Some models predict tropical sea-surface temperature increases of 1-3C, but there is widespread debate about possible feedback mechanisms that might either stabilize values in the vicinity of 30-31C (73-123), or produce positive temperature feedbacks over the warmest part of the ocean (54). Although pale climatic conditions are not generally considered reliable predictors of future climate patterns, it may be relevant that during the Remain warm period (125,000BP) most northern hemisphere land areas were significantly warmer than at present, but tropical regions were not detectably warmer (106,127). Also under the IPCC Business-as-Usual Scenario, global sea level rise is predicted to average about 6 cm/decade over the next century (range: 3-10 cm/decade); this value compares with recently observed values of 1-2 cm/decade, and with maximum sustained rates of sea level rise during the Holocene transgression in excess of 20 cm/decade (7,51). Changes in the frequency and intensity of

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extreme events are probably more ecologically significant than moderate changes in the mean values of environmental factors. In addition to a probable increase in high-temperature events, two possible changes relevant to local coral reef environments are worthy of note (110). One is a shift in precipitation patterns so that more of the total precipitation falls during heavy storms; the other is a possible change in the frequency, magnitude, of geographic distribution of major tropical storms.

Environmental issues at global level

- Depletion of natural resources
- Water pollution
- Air pollution
- Ground water pollution
- Toxic chemicals & soil pollution
- Ozone layer depletion
- Global warming
- Loss of bio-diversity
- Extinction of wildlife and loss of natural habitat
- Nuclear wastes and radiation issues
- Global environmental issues list

If asked what are the global environmental issues that the planet faces today, most people out there wouldn't be go beyond global warming and energy crisis. These people are not aware of the fact that there are several other issues of global concern, each of which is equally hazardous. More importantly, all these issues are related with each other by some of the other way, and hence, tackling them one by one has just become difficult.

Climate change: Climate change has become more than obvious over the past decade, with nine years of the decade making it to the list of hottest years the planet has ever witnessed. The rise in temperature has also ensured that the questions on the planet have gone for a toss. Some to the most obvious signs of this include irregularities in weather, frequent storms, melting glaciers, rising leve3ls of sea etc. Going by the prevailing conditions, it is not difficult to anticipate that the planet is heading for a dramatic climate change, come wherein, near, future.

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Conservation of species: Yet another global environmental issue, species conservation basically deals with conservation of flora and fauna, in order to curb the extinction of species. Extinction of a single species of plant or animal results in a dramatic imbalance in the ecosystem, as a number of other species dependent on it directly or indirectly are also affected. Over the last century or so, several plants and animal species have become extinct thus resulting in a major loss for the biodiversity of the planet.

Energy crisis: The fact that we are largely dependent of fossil fuels for our energy requirements has made us significantly vulnerable to severe energy crisis. Though, quite a few renewable energy sources have been identified, none of them have been promising enough when it comes to replacement of fossil fuels as the major source of energy by and large depends on these attempts, as fossil fuels are on the verge of exhaustion.

Ecosystem Role and Responses

Ecosystems and their responses to environmental change may play various roles in a climate and global change context. Ecological control of reservoir size of rates of flux for climate-influencing materials such as CO₂ is a potentially important factor. In relation to human society, ecosystem sensitivity-or-vulnerability is an important issue; ecosystem collapse in response to environmental change may result in loss of resources; degradation could, in principle, serve as an early warning of increasing stress. From a scientific standpoint, large-scale environmental changes represent a natural experiment that may permit investigation and understanding of ecosystem structure and function not possible on a laboratory scale or in a stable environment. In this section we discuss these three issues before turning to a more detailed inventory of coral reef responses to individual environmental forcing functions.

Global Warming

Global Warming in the unusually rapid increase in Earth's average surface temperature over the past century primarily due to the greenhouse gases released by people burning fossil fuels. Archaeological sites and some buildings have survived at least two periods of global warming and intervening cold periods. With international scientific evidence mounting and the reliability of future climate predictions increasing. Heritage commissioned research to gather evidence on climate change as a possible cause of environmental instability of cultural heritage and to inform present and future planning (Figure I).

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Roles of WWF to Protect from Global Warming

WWF-India is one of the largest conservation organizations engaged in wildlife and nature conservation in the country. A part of WWF International, the organization has made its presence felt through a sustained effort not only towards nature and wildlife conservation, but sensitizing people by creating awareness through capacity building and environ-legal activism. A challenging, constructive, science-based organization WWF addresses issues like the survival of species and habitats, climate change and environmental education.

Some Facts and Figures about Global Warming

According to the report of WTO International Organization 2007 the following things are take place in the world and affecting the natural disaster. The biggest ice cap in the arctic region, the ward hunt ice shelf broke into Fragments as a result of global warming, reported NASA. More average shoreline in Fiji receding by half a foot every year. Adeline penguin populations in Antarctica reduce in size by 33%.20-30% of the world's reefs wiped out. The above mentioned facts are the tip of the iceberg as far as disastrous effects of global warming.

Effects of Global Warming in India

Elevated carbon dioxide emissions from industries, factories, vehicles etc. have contributed to the greenhouse effect, causing warmer weather that lasted long after the atmospheric shroud of dust and aerosols had cleared (7). Further climatic changes 20 million years ago, long after India had crashed into the Laurasian landmass, were severe enough to cause the extinction of many endemic Indian forms. The formation to the Himalayas resulted in blockage of frigid Central Asian air, preventing it from reaching India; this made its climate significantly warmer and more tropical in character than it would otherwise have been (9). Several effects of global warming, including steady sea level rises, increased cyclonic activity, and changes in ambient temperature and precipitation patterns, have affected or are projected to affect India. Ongoing sea level rises have submerged several low-lying islands in the Sundarbans, displacing thousands of people. Temperature rises on the Tibetan Plateau, which are causing Himalayan glaciers to retreat (4). The present rate of global warming could mean that many plants and animals currently living at lower elevations or at lower latitudes will progressively migrate to higher elevations and latitudes. Hence, in the long term, it may be expected that some of our currently important agricultural species will no longer be able to grow at their present lower latitudinal and lower elevation limits if the global temperate warms.

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Temperature

Evert year rapidly increase the temperature from the global warming and climate change. As the result natural calamities like Tsunami, Soil erosion, Ice glaciers melting in Himalayas and other things.

Discussion

On large scales, the environmental effects specifically attributable to climate change would suggest that reefs as a global biotic phenomenon are not seriously threatened. We know that reefs are structurally and functionally similar over a wide range of conditions and dominant species, indicating that the communities are not highly dependant of specific individual taxa and may be resilient to the loss of some more vulnerable species. When we consider individual climatic factors in isolation, we see that the effects of sea level rise on coral reefs over the next century are more likely to be positive than negative. Increases in maximum sea surface temperatures will increase the frequency of temperature-induced stress or mortality events, but increases in minimum and/or average values may extend the geographic range of conditions suitable for reef development on a longer time scale. Climatic changes in hydrologic or hydrographic factors may have positive or negative effects on a local scale. Although we may expect significant changes in the details of reef characteristics and distributions, there is at present no basis for predicting widespread deleterious effects on average.

Conclusion

Global climate change is causing these areas to experience an increasingly sparse and erratic rainfall pattern and a lengthened dry season, affecting the livelihoods of thousands of villagers, some areas are also facing water shortages. People are becoming aware of sick of global warming, so they cultivate more and more trees, planting mangrove forest by the sites of the coastal areas and reduce the usage of plastic. They have sowed more than 12 million seeds & half a million of plants. Planting trees balances carbon emissions and pollution. There are organizations that will help you offset your carbon footprint. The deforestation comes in a close second in causes for global warming. Thus, a more global view is required, particularly with regard to the science, but also with regard to policy. These phenomena are not occurring independently, and to analyze them and try to develop responses to them as though they were seems an exercise designed to fall short of the optimum solution. Although it is sometimes helpful to divide a problem into components in order to analyze what contributions are made by the various pieces, at some point the analyst has to reassemble the parts and look for the sum of the effects.

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This has not yet been done in the public health arena regarding global climate change, and there is very little evidence that it is being done in other important areas such as agriculture and natural resources.

At last, global warming can be dealt with only through international agreement. The context is one of game theory, and the stressing need is to design incentive systems for global cooperation. The Montreal protocol on ozone may be an ineffective guide to the prospects for a greenhouse agreement. The most urgent need is to develop appropriate policy instruments and compensatory mechanisms for the best results. The growing recognition that greenhouse gas reductions are not the only option we have to slow and ultimately reverse global warming. Restoring and expanding global forests can also cool the planet.

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