



Social Scars Of Global Warming: Environment Challenges: A View

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ABSTRACT

Global warming has become the most important and controversial issue in international environmental relations. Global average temperature has increased between 0.30c and 0.60c (0.5 to 1.10 F) over the past century. The modern civilization constitutes a very dense network of sub-units unable to form a well functioning system. It has become huge and highly complex. Unless it conforms to the laws of nature and evolves feed back mechanism to get over systematic problems as and when they arise, it is sure to crash sooner or later. The present study underscored the need for evolving strategies to combat global warming and popularize non-renewable energy sources of eco friendly life styles. Efforts were taken at international consensus on environment development for which India has shown its response to achieve a balanced development at global level by the name sustainable development, highlighted in the present study.

Key word : Global Warming, Environment

Introduction

Global warming has become the most important and controversial issue in international environmental relations. Global average temperature has increased between 0.30c and 0.60c (0.5 to 1.10 F) over the past century. The uncertainties of global warming include emission rates for the various gases and their atmospheric lifetimes and concentrations; the effects of such concentrations on temperature, precipitations, and climate, especially at the regional, national and local levels; and the effects of climate change on a wide range of variables of economic significance including agriculture, sea level changes, human health, biodiversity, and basic ecological and environmental system. In economic terms, a stable global climate is an international public good, and greenhouse gas emissions leading to global warming are privately produced international public 'bads'. As with other public goods, collective action is needed.

The modern civilization has become huge and highly complex. Unless it conforms to the laws of nature and evolves feed back mechanism to get over systematic problems as and when they arise, it is sure to crash sooner or later. Its main characteristics are increasing population, industrialization, urbanization and dehumanized technology.

Increasing Population

World population has been steadily growing since ancient times. It took 123 years (1804-1927) for the world population to double to 2 billion, and 33 years (1927-60) to treble to three billion; and in the 40 years (1960-1999) it increased to over six billion and is projected to eight billion by 2025. By 2045-2050, the world population is expected to be around nine billion, plus/minus 1.5 billion. If the present rate of growth continues for even next 30 years, we may confidently predict that the earth system world lose its balance and unexpected developments like global warming and climate change would jeopardize life on plant earth.

Industrialization

In mid-19th century, two thirds of the people of the USA were engaged in agriculture and related activities, the share decreased to 40 percent in 1900, 15 percent in 1950, 5.2 percent in 1970, and 2 percent in 2002. While the developed countries have almost reached a saturation point, the developing countries are trying to follow their serious slowly but steadily. If the trends set during the last two decades continue, by 2021, only half of the total force of India and China would be engaged in agriculture. This means that these major economies together having more than are third of population of the world would pollute the environment in years to come Table- 1 presents world emissions of carbon-dioxide from consumption of various fossil fuels, cement manufacture and lead use changes (deforestations). Fossil fuels account for about 82 percent and deforestation, aboy sourceut 15 percent.

Table- 1 World co2, emission by source

Sources	World carbon-dioxide emission	
	Millions metric tons	in %
Land use changes	4,000	15.5
Gas fuels	6,829	14.5
Liquid fuels	9,050	34.2
Solid fuels	5,588	32.5
Cement manufacture	-627	2.4
Gas flaring	-249	0.9
Total	26,443	100

Source: Based on World Resources Institute (1996)

The study based on world Resource Institute, showed that different regions contribute different amounts of different grew house gases. Europe and North and Central America account for 58 percent of Co2 from industrial sources, but only 32 percent of methane. Asia contributes 32 percent of industrial Co2 and 50 percent of methane. The disparities are of course related to income levels and industrial / agricultural structure.

Table- 2 shows the sources of global methane emission. Agriculture and livestock together account for a little over 55 percent.

Table- 2 : Sources of anthropogenic methane emission

Sources	World emissions (millions metric tons)	In %
Solid waste	43	16
Coal mining	36	13
Oil and Gas Production	44	16
Wet Rice Agriculture	69	26
Livestock	81	30
Total	210	100

Source: Based on World Resources Institute (1996)

Table- 3 shows the carbon emission of various fuels per unit of energy produced. Coal is about 67 percent more carbon-intensive per unit of energy than natural gas.

Table- 3 : Carbon content of fossil fuels

Fuel	Tons carbon emitted per million BTU
Coal	25
Oil	20
Natural gas	15

BTU: British thermal unit, Source: based on Watson et al (1996), Box B-2, P-80 The study based on world Resource Institute, showed that different regions contribute different amounts of different green house gases. Europe and North and Central America account for 58 percent of Co2 from industrial sources, but only 32 percent of methane. Asia contributes 32 percent of industrial Co2 and 50 percent of methane. The disparities are of course related to income levels and industrial/agricultural structure.

Urbanization

In 2010, for the first time in the history of our species, urban population has exceeded rural population. Shirking opportunities for work in rural areas and increasing investment in manufacturing and services in urban areas, rural-urban migration has become a major trend in developing countries. As a result, the urban rural divide has widened and quality of life in large cities has deteriorated. Over crowding, poverty unemployment, environmental pollution, and violence have become the main traits of the metropolitan cities of the developing world.

Dehumanized Technology

The adverse effects of modern technology are: mass unemployment, environmental pollution, escalating violence, and unhealthy lifestyles. Unemployment trends poverty, frost ration and violence. Water is becoming more and scarcer. In centuries should be offered to producers who reuse and recycle. Advanced emission control technologies may also create problems. The bio fuels are welcome, but their increasing use may threaten food security and may even create fodder shortage. New and renewable sources of energy which include wind energy, solar energy, and hydro energy can be utilised. Therefore, the stress should be on energy efficiency and energy conservation.

Pro-Warming Lobby

The land, water and air on the earth surface can support life because they are kept warm by the sun. The earth surface (land, air and sea) emits thermal radiation or infrared heat out into the space. Some of this outgoing radiation, however, is reabsorbed by water vapour, carbon dioxide and other gas in the atmosphere (called Green House Gases (GHGS) become of their heat trapping capacity and is than radiated back to the earth. The present rate of increase of GHGS in the atmosphere amounts to around eight billion tons of Co2 per year a part of it is absorbed by the 'Sinks' like forests and oceans but the rest stays in the atmosphere.

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Since the GHGS in the atmosphere obstruct the beat of the earth surface redialing to the outer atmosphere, temperature of the earth are going up. The current availability of utilizable surface and ground water stands at 1,122 billion Cubic Meters (The Government of India, 2008). Given India's current population of 1.15billion, this works out to approximately 1000 cubic meters per capita. Conventionally, utilizable water below 1700 cubic meters per capita per year is associated with "stress" in water "scarcity". Rising population has been continuously lowering the availability of water per capita, ultimately affects the agricultural sector badly. Hence, production of food grains is affected.

Table- 4 : Percentage change in production of food grains

Crops	Years								
	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
Rice	17.96	-5.53	8.96	-29.96	18.65	-6.50	9.43	1.67	3.45
Wheat	34.73	-9.60	4.25	-10.66	8.81	-5.11	1.02	8.52	3.51
Coarse	-14.61	2.41	6.86	-28.00	431.61	-12.37	1.76	-0.41	16.76
Cereals total	19.46	-5.73	6.89	-21.89	17.56	-7.05	5.11	3.88	5.99
Pulses total	4.17	-21.23	17.20	-20.13	25.50	-13.56	1.94	5.70	3.79
Food grains	18.47	-6.60	7.54	-21.73	18.13	-7.48	4.91	3.99	5.65

Source: Ministry of Agriculture, 2009

To face the environment challenges, various steps have been taken at global level to combat the global problems; for which India has shown its response and came with the solutions at local and international level which are presented below;

Global initiatives

- The efforts to arrive at an international consensus on environment and development took a concrete form when the representatives of 165 years converged in Rio in 1992 for the Earth Summit of signed the Rio- Declaration it said that right to development must be fulfilled so as to equitably meet developmental and environmental needs of the present and future generations.
- The concept of Green House Gas (GHS) emission trading which became a part of Kyoto protocol in 1997, under the auspices of United Nation Framework convention on Climate Change (UNFCCC) was one of the by products of the Rio conference, the protocol was signed by 160 years of covered more than 55 percent of global Green House Gas Emissions.
- The conference of the parties to the Kyoto protocol established an Ad-Hoc Working Group (AWG-KP) in December 2005, UNFCCC met in Bali on December 2-15, 2007 and decided to fourthly set up International efforts to compact global warming and climate change.
- They met again in March 2008; Delegates from 162 years of over 1000 other representing NGOs participated in the conference.
- It was decided to cap the GHG emissions at the level of 2010 by 2010-25 and reduce over all emission by 2050.

Indian response

A National Action Plan, on climate change was launched in June 2008 to local India towards sustainable development. The strategies include national missions on solar energy and energy efficiency, water use, forestation, agriculture sustainability in urban environments, the Himalayan eco system and scientific research. To achieve the assuring results, people's participation in the efforts being made by the government channels is required.

Conclusion

To conclude, it is very essential to understand the nature of 'trade off' between the orthodox development goals and environmental deterioration and to strike a balance through deliberate policies and determined actions. The balance development is what goes by the name: sustainable development.

The study suggests some measures as recommendations on how to protect environment.