



Need for the Environmental Education

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Abstract:

Abnormal behavior in terms of conventional social habits, which have proven to be ecologically harmful, must now be condemned. Environmental education is not a program for the passive adaptation to autonomous change but a program that permits active formation of goal-directed change. Environmental education is a program for directing the course of dominant social trends, and one opposed to certain traditional norms and behavioral patterns, especially relating to resource exploitation.

Key words: social trends, Environmental education, goal-directed change

Introduction

Global environment and ecology are rapidly becoming the most demanding subjects for debate, decision and action as the emergence of environmental problems pose stiff challenge for physical sciences as well as social sciences. The world over, development resulted in disparities in terms of socio-economic conditions between rich and poor countries. Economic trends had benefited a privileged minority and had done little to meet the basic needs of the vast majority of people, while degrading the environment through pollution and deforestation.

Advanced industrial development, in Europe and North America, brought to the fore problems such as over consumption (of resources and goods), enormous amounts of garbage, acid rains and pollution with concomitant effects on the survival of living species and natural resources. Poor regions like Africa and Latin America face resource depletion in the form of deforestation and mining leading to cycles of drought, famine and civil wars.

These conditions have devastated human population killing nearly one million. Many other living plant and animal species are almost decimated. In recent years, dangerously high levels of ozone and acid rain have been discovered for the first time in central Africa. Rainforests, an important link in world meteorology cycle, are lost to 'development' in countries like Brazil, Malaysia, Myanmar and Indonesia. Upcoming Industrial countries in Asia such as China, South Korea and Thailand are learning to live with industrial pollution and resource degradation. Countries with sea coast such as India and Bangladesh are in the grips of annual floods and sea water intrusion.

At the global level, acid rain, desertification, global warming, ozone layer depletion, pollution, radiation and species extinction are some of the most urgent environmental problems. Increasingly, efforts are being concentrated to forge international cooperation on tackling these problems.

Human beings are at the center of concern for sustainable development. They are entitled to healthy and



productive life in harmony with nature. Women have an essential role to play in development of sustainable and ecologically sound consumption and production patterns and approaches to natural resource management, as we recognized at the United Nations Conference on Environment and Development and reflected through Agenda 21.

Awareness of resource depletion, the degradation of natural systems and the dangers of polluting substances have increased markedly in the past decade. These worsening conditions are destroying fragile eco systems and displacing communities, especially women, from productive activities becoming an increasing threat to a safe and healthy environment.

Poverty and environmental degradation are closely interrelated. While poverty results in certain kinds of environmental stress, the major cause of the continued degradation of the global environment is the unsustainable pattern of consumption and production, particularly in industrialized countries, which is a matter of grave concern, aggravating poverty and imbalances. Rising sea levels as a result of global warming cause a grave and immediate threat to people living in island countries and coastal areas. The use of ozone depleting substances, such as products with chlorofluorocarbons, halons and methyl bromides (from which plastics and foams are made), are severely affecting the atmosphere, thus allowing excessive levels of harmful ultraviolet rays to reach earth's surface. This has severe effects on people's health such as higher rates of skin cancer, eye damage and weakened immune systems. It also

has severe effects on the environment, including harm to crops and ocean life.

All countries and all people have the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and to meet the better needs of the majority of the people of the world. Hurricanes, typhoons and other natural disasters, destruction of resources, violence, displacements and other effects associated with war, armed and other conflicts, the use and testing of nuclear weaponry and foreign occupation can also contribute to environmental degradation.

In India the situation is similar. Almost all the states have the common set of environment problems with variations in degree than kind. Given the socio-economic disparities, these problems mostly put the poorer sections of the society at a disadvantage.

Nature of environmental problems in India

The nature of environmental problems in India can be analyzed according to the following sectorial areas:

- (1) Land resources
- (2) forestry
- (3) water resources
- (4) air pollution by industries and other sources
- (5) human settlement.

Land Degradation

According to an available official figure, out of 304 hectares of total cultivated land area, as much as 175 million hectares are subjected to environmental degradation. The rate of degradation is also said to be very high. Every year 2.5 million hectares i.e. about one percent of India's land area turns to



waste land. About ninety million hectares of land degraded is almost completely unproductive. Land degradation of this order has serious ecological and economic implications.

Apart from the fifty percent of the land area that is degraded in the above ways, about twenty-seven million hectares are degraded by flood salinity and alkalinity. It is estimated that our national soil loss is about six thousand million tons annually, 18.5 percent of the total soil loss at the global level. This is very serious considering the fact that India has only 2.4 percent of the total land area of the world. With this soil we lose about six million tons of nutrients which is greater than the quantity of fertilizers applied to our soil every year. The most affected states are Bihar, Madhya Pradesh, Uttar Pradesh and Rajasthan.

Forest Resources

Some 1.5 million hectare of land turns barren every year because of deforestation. According to an estimate, India has only eleven percent of good forest cover. At the present rate of deforestation, India will have no forest cover left in another forty to fifty years. The result of forest destruction is increasing the intensity and frequency of floods, droughts, soil erosion has adverse change on climate. On an average every hectare of land loses twenty tons of top soil every year. On account of soil erosion caused by deforestation, floods have become annual phenomenon in India. According to the report of the National Commission on Floods (1980) the annual expenditure on drought and flood relief is more than Rupees one thousand and five hundred crores. This is in addition to the colossal loss of life and property. The

total area affected by periodic floods has doubled during last decade. Indiscriminating felling and clearing of forest lands, creation of canals for irrigation have created new habitats and many alien weeds such as parathion, euphoria, saline which are the source of great menace throughout the country.

Water Resources

It is said that seventy percent of all the available surface water in India is polluted. Domestic wastes constitute up to eighty percent to ninety percent of the total volume of pollution; fifty percent of the water pollution which increases BOD of the water is from domestic wastes, Ganga, the holy river is no longer clean. The cities situated along the river drain all the municipal waste and sewerage untreated into river Ganga. According to an estimate twenty-seven major cities along Ganga discharge more than around 1200 million liters of waste water everyday into the river. In addition to this sixty-four highly pollution causing industries discharge more than one million liters per day of toxic industrial effluents. Similarly, other rivers are also polluted.

Air pollution by Industries and other Sources

Pollution is the inevitable consequence of development process and in India's case, the major sources are domestic waste, irrigation, thermal power, industries and auto exhaust emission. Industrial activities, motor transport and burning fossil fuels have been emitting large quantities of pollutants into the atmosphere. The presence of Sulphur dioxide, nitrogen oxides, carbon monoxide and lead in the air have been increasing. The central



board for pollution control conducted a study jointly with State boards and found that the consumption of motor spirit containing lead has increased by almost twice the anticipated rate after 1983. As a result, the lead content in the surrounding air at street-crossing in Patna is eight to ten times higher than those in Delhi and Calcutta. This is because the oil refineries in the East and North East are producing motor spirit with tetra ethyl lead (TEL) content ranging between 0.27 to 0.44gms of lead per liter. The central board already asked the petrol industry to reduce the level of TEL on motor spirit to a safe level of 0.15gm/ liter.

Human Settlement

Resources shrink as people multiply and demographic pressures lead to economic pressures. Pollution, environmental pollution, natural resources and economic development are all inter-related. India accounts for nearly fifteen percent of the world's total area. This increasing population has resulted in housing problems and proliferation of slums. There is a shortage of twenty-one million houses; sixteen million in rural and five million in urban areas. The population in slums is likely to increase twenty-eight million to 55.2 million. Only five percent to seven percent of the Indian population is provided with sewerage facilities and only three percent have access to sewage treatment facilities. Energy surveys in India show that in an average semi-arid village, a woman walks as much as 1400kms, the distance between Delhi and Calcutta, to collect fire wood alone.

Need for Environmental education: For approximately more than twenty years, the educational institutions of the world

have been making substantial efforts to meet the challenges arising from politics, science and public opinion toward integrating environmental concerns. A popular slogan of the International ecology movement is: "think globally, act locally". For students of environmental education in India, it is important to learn to differentiate between aspects in environmental education that are typically western, European or Indian, and Global.

Today environmental education is an important segment within the educational system. In some countries, it also constitutes a political-pedagogical action program to be developed and pursued by social groups, government, the scientific community and educational institutions.

Environmental education seeks to develop the ability to assess environmental situations and the casual chains of relationships leading to environmental damage; the interaction among social, economic, and physical factors; mutually related and overlapping developments, networks and feedbacks; respect of revolution, nature and life; recognition of the limits of nature, human action and self-restriction; and (re-) acquiring the ability to perceive nature.

Environmental education aims at ultimately far reaching and manifold behavioral changes in everyday life and at the workplace. The guiding principle and pedagogical ideal of environmental education is the environmentally responsible consumer, industrial producer, employee, citizen, policy maker, traveler, athlete, tourist and farmer- every human who is aware of nature and lives in harmony with it. Whoever learns



about ecology develops problem oriented and action oriented capabilities and insights. In this process, to some extent, elementary cultural processes and behavioral patterns must be learnt anew.

Scientists in many specialized areas of research agree that environmental education must oppose certain values, norms and behavior patterns that have developed with industrial society and must develop new attitudes and priorities. This may be different in other societies. Even in the west one finds philosophical world view and religious traditions that offer the basis for a new environmental ethic. However, environmental education is essentially one of hiatus and not one of compromise. Education is preparation for and adaptation to the complex daily life and workplace worlds of the developed western industrial system, on the one hand and on the other, education as preparation in confronting the problems created by these industrial systems.

This program for a crisis-oriented education represents a new phenomenon in pedagogical history. Normally, education prepares a person for participation in a continuously developing society, for life and work in society as it is. However, environmental education prepares one constructively to deal with basic scarcity of resources in modern times. Its goal is not adaptation to the situation but development of novel ways of thinking and acting. Abnormal behavior in terms of conventional social habits, which have proven to be ecologically harmful, must now be condemned. Environmental education is not a program for the passive adaptation to autonomous change but a program that permits active formation of goal-

directed change. Environmental education is a program for directing the course of dominant social trends, and one opposed to certain traditional norms and behavioral patterns, especially relating to resource exploitation.

Given that most efforts at environmental education occur in different settings, and not necessarily in the formal classroom, it is useful to consider how the setting itself can be used to teach. In fact, "environment" is one of the key elements of a teaching/learning exchange. Environment refers to both the physical or constructed surroundings and to the affective environment created by the interaction of the teacher, the individual learner, the group of learners, the content and the physical environment.

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