Impact Factor : 1.883 Peer-Reviewed Journal ISSN : 2278 – 5639
Global Online Electronic International Interdisciplinary Research Journal (GOEIIRJ)
THEME : ENVIRONMENT AND EDUCATION
{Bi-Monthly} Volume – IV Issue – III October 2015

ENVIRONMENTAL CRISIS AND MANAGEMENT

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Society is frequently affected by two ways one is natural disasters like earthquakes, hurricanes or tornados and second is man-made crises like terrorism, industrial accidents or corporate malfeasance. These crises are becoming common parts of the social, psychological, political, economical and organizational landscape of modern life. They affect people more than ever, becoming a phenomenon with tremendous effects on individuals and communities, on society as a whole. In the last three decades, interest in crises and their effects on individuals and society were increases rapidly. The things are easily available for Anglo Indians are now not available for many people because of environmental crisis. There is uneven distribution of resources viz. Developed countries(25% population) consumes 75% resources and rest(75% population) consumes only 25% resources. USA with 6% of world population uses 33% of world resources.

One of the most compelling reasons for studying environmental science and management is the fact that, in the view of many leading authorities, we are now experiencing an environmental crisis. Many authors have claimed that the present environmental crisis is unprecedented in its magnitude, pace and severity (Park 2001). Awareness of this environmental crisis has grown since the 1970s, partly as a result of the prominence given to major so-called 'environmental' disasters such as the Sahelian droughts of the 1970s and 1980s and the nuclear accident at Chernobyl in 1986. A major assessment of the global environment published in 1999, the UNEP Global Environment Outlook 2000 report (UNEP 1999), drew attention to two critical, recurring themes. The first one is the fact that the global human ecosystem is threatened by grave imbalances in productivity and in the distribution of goods and services as evidenced by the fact that a large proportion of the human population lives in poverty, and that a widening gap exists between those who benefit from economic and technological development and those who do not and the second is the fact that accelerating changes are occurring at the global scale, with rates of economic and social development outstripping progress in achieving internationally co-ordinate environmental stewardship with the result that improvements in environmental protection due to new technologies are being 'cancelled out' by the magnitude and pace of human population growth and economic development.

Consequently, a wide range of environmental problems has emerged such as anthropogenic climate change (global warming), the depletion of stratospheric ozone (ozone hole), the acidification of surface waters (acid rain), the destruction of tropical forests, the depletion and extinction of species, and the precipitous decline of biodiversity. Yet, while all of these problems have physical (environmental) manifestations, their causes and their potential solutions are invariably bound up with human attitudes, beliefs, values, needs, desires, expectations, and behaviors. Thus the symptoms of the environmental crisis cannot be regarded purely as physical problems requiring solutions by environmental 'specialists'; instead, they are intrinsically human problems and they are intimately related to the question of what it means to be human.

Meaning of Crisis

There are several definitions of crisis in various context, some of them are mentioned here. Hermann (1963) found three characteristics of crises, separating them from other unpleasant events. He argues that an unpleasant event cannot reach the level of a crisis without the element of surprise, the high level of threat and the need for a short response time. C,Steven Fink, (1986) stated as "Crisis is a turning point for better or worse" Pearson and Mitroff (1993) says elaborated five dimensions of crises which share certain similarities with Hermann's view: they are highly visible, require immediate attention, contain an element of surprise, have a need for action and are outside the organization's complete control. Seeger's (2007) definition of crisis as "a specific, unexpected, and non-routine event or series of events that create high levels of uncertainty and threaten or are perceived to threaten an organization's high-priority goals."

Environmental Crisis

An environmental crisis would be when the balance of the environment has been offset. Environmental stability is when everything is functioning well and all components of the environment are healthy.

Main features of the environmental crisis

The environmental crisis encompasses the following main issues.

1. **Climate change:** anthropogenic climate change due to pollution of the atmosphere by greenhouse gases is now regarded as one of the major global environmental issues. It occurs largely as a result of the combustion of fossil fuels, emissions from agriculture and pastoralism, and land-use changes that accompany the destruction, clearance and burning of forests. Climate change already has observable ecological and social effects, and its projected impacts could potentially result in profound changes in global mean surface temperature, sea level, ocean circulation, precipitation patterns, climatic

zones, species distributions and ecosystem function.

2. **Stratospheric ozone depletion:** the depletion of stratospheric ozone due to the pollution of the atmosphere by halocarbons such as chlorofluorocarbons is another serious environmental issue. It is a significant concern because the lack of protective ozone at high altitudes results in increased levels of harmful solar ultraviolet radiation reaching the earth's surface, causing a range of health-related and ecological impacts.

3. **Degraded air quality:** other forms of air pollution are also significant, particularly at regional and local scales, as they may seriously degrade air quality; worldwide, approximately one billion people inhabit areas(mainly industrial cities), where unhealthy levels of air pollution occur. Many air pollutants are responsible for the degradation of air quality, but some key pollutants include particulate matter (such as soot), tropospheric ozone, oxides of nitrogen, oxides of sulphur, lead and various aromatic compounds such as benzene. Many air pollutants may cause or aggravate respiratory and cardiovascular illnesses; some are known carcinogens; and some can cause damage to vegetation and, in turn, produce a range of ecological effects.

4. **Degraded water quality:** water quality can be seriously degraded by contamination with pollutants, giving rise to a range of health-related and ecological effects such as the degradation of coral reefs. A major source of water pollution is the terrestrial run-off to inshore waters that occurs in many coastal locations, such run-off may contain significantly elevated levels of nitrogen and phosphorus from agricultural land and from human settlements. Many other human activities lead to water pollution, including mining and industrial processes, which may create toxic effluent. Oil spills, accumulation of plastics and the bioaccumulation of persistent organic chemicals are some of the other causes of serious degradation of the marine environment.

5. **Scarcity of fresh water:** besides the pollution of freshwater sources, there are a variety of other reasons for the scarcity of fresh water for drinking in many parts of the world many of which are related to poor water resource management practices. For instance, the over-abstraction of water from rivers results in water shortages and problems of salinization downstream. Irrigation practices may also be responsible for the depletion of local water sources and the salinization of irrigated land. Vast differences in water security exist at the global scale, reflecting both demand for fresh water and the scale of public and private investment in water supplies, treatment and distribution.

6. **Land contamination:** land contamination occurs as a result of chemical or radioactive pollution, especially by long-lived chemical species that enter the soil. Land contamination may cause profound ecological effects and it presents severe constraints to development, since contaminated

land must typically be rehabilitated before it is safe to use for agriculture, construction or recreation.

7. **Deforestation:** it has been estimated that around half of the world's mature forests have been cleared by humans. Deforestation occurs for a variety of reasons, but the majority of deforestation now occurs when tropical forests are cleared for agriculture and pastoralism, other reasons include the destruction of trees for charcoal production and the selective logging of forests for timber. Whilst tropical forests cover only around 6% of the earth's surface, they are an essential part of the global ecosystem and of the biosphere: they help to regulate climate; they protect soils from erosion; and they provide habitats for a vast number of plant and animal species. One estimate suggests that around 90% of the world's species are found in tropical forests (Park 2001).

8. **Soil erosion and degradation:** soil degradation and the problem of desertification have become acute. These concerns are based on the historical experiences of dramatic soil erosion and transport in New World countries including the USA and Australia. Whilst analyses of the problems of soil erosion and degradation have become more sophisticated and it is clear that these problems continue to have important consequences for agricultural and pastoral productivity as well as for the functioning of natural ecosystems.

9. **Land use change and habitat loss:** these issues overlap with others, such as deforestation, but they are broader and include the clearance of forest for agriculture and pastoralism, the transformation of land during urban growth, the development of new infrastructure like roads, the drainage of wetlands, and the destruction and removal of coastal mangrove forests.

10. **Biodiversity loss:** many plant and animal species are threatened with extinction, due to the spread of disease, the destruction and degradation of their habitats, and direct exploitation. In 1999, UNEP estimated that one-quarter of the world's mammal species and around one-tenth of the world's bird species faced a significant risk of total extinction. Threats to biodiversity are not confined to terrestrial ecosystems; serious concerns have been raised about the future of marine and coastal wildlife species as a result of the pollution, over-exploitation and acidification of ocean and seas. The known causes of animal extension since 1600 are hunting(23%), species introduction(39%), habitat destruction(36%) that is 98% by human.

Some issues associated with the environmental crisis are not strictly 'environmental', but they are closely related to environmental issues.

Population growth: the total human population has expanded since the introduction of agriculture, around 12 000 years ago, and its rate of growth has generally increased over time, largely as a result of increased food production and improved sanitation and health care. Achieving the first one billion

of human population took most of human history, whilst the most recent increase of one billion was achieved in little more than a decade. However, recent declines in the rate of growth of population have occurred in many parts of the world, and in some countries populations are now declining. The total human population was around 5.9 billion in 1998; it currently far exceeds 6 billion people and is expected to have reached 9.4 billion people by 2050. The increasing human population inevitably places greater demands on the natural environment - for habitat, resources and waste assimilation - although the extent to which the human 'population explosion' is driving environmental degradation is a complex and controversial question. Significant differences exist in cultural attitudes to the issues of human population size and the rate of population growth.

Urbanisation: the issue of urbanisation is indirectly related to that of population growth, since urbanisation is occurring in response to increasing population pressures in rural areas and to the increasing concentration of economic opportunities in cities and 'megacities'. Urbanisation is often associated with a range of social and environmental problems including overcrowding, congestion, pollution, public health issues, shortages of water for drinking, and inadequate sanitation. It is also related to another issue like decline of rural communities.

Poverty: whilst poverty is complex and problematic to define, the persistence of poverty at all levels (from intra-household to global) represents an ongoing challenge, as acknowledged in most current development policies, initiatives and targets. Vast differences in patterns of income, production and consumption are evident at all spatial scales, and those patterns are reflected in distinctive patterns of environmental impact.

Food insecurity: in general, the rate of increase in total food production has exceeded that of total population growth over recent decades, mainly due to improvements in agricultural practices and in water management techniques. However, the average values conceal enormous differences in the distribution and quality of food, and the lack of food security remains a profound challenge in many parts of the world. Debates about food production raise important environmental issues such as the use of genetically modified and genetically engineered seeds and produce.

Disease: closely related to issues of poverty and food insecurity are problems of disease due to malnutrition, scarcity of water for drinking, poor sanitation, pollution, and inadequate shelter; those are often compounded by the spread of infectious diseases such as malaria, cholera, tuberculosis and HIV/AIDS. Large differences occur in the responses of human societies to diseases, reflecting vast inequalities in health care spending and in funding for pharmaceutical and medical research.

Peak oil and energy security: peak oil refers to the time at which maximum crude oil extraction

occurs, after which the economically viable reserves become depleted and the rate of oil extraction declines. Some estimates suggest that peak oil will occur - or has already occurred - early in the 21st century, with the implication that alternative energy sources will need to be developed in sufficient time to serve as a substitute for oil. Regardless of the accuracy of predictions about peak oil, the issues of climate change and conflict respectively, are now driving debates about 'green' (decarbonised or renewable) energy sources and energy security.

Conflict and displacement: conflict between human societies continues to create severe environmental degradation in addition to human misery and a wide range of social impacts. For instance, the use of depleted uranium munitions causes significant land contamination, whilst the effects of the displacement of large numbers of people from zones of conflict can exert pressures on adjacent ecosystems. Displacement of people does not occur only in response to violence; globally the effects of climate change are projected to result in the displacement of as many as 500 million environmental refugees.

Crisis management

It was the strategic actions of a group of people that led to successfully surpassing the crisis, actions which collectively have been termed crisis management. Crisis management as "a set of factors designed to combat crises and to lessen the actual damages inflicted, seeking to prevent or lessen the negative outcomes of a crisis and thereby protect the environment from damage." Drawing attention on the evolving nature of a crisis, the same scholar states that "a crisis does not just happen, it evolves" (Coombs, 2007). For this reason, crisis management should be thought of as a process with many parts, including preventive measures, crisis management plans and post-crisis evaluations. Crisis management as "a process of strategic planning for a crisis or a negative turning point, a process that removes some of the risk and uncertainty from the negative occurrence and thereby allows the environment to be in greater control of its own destiny." Crisis management is a relatively new discipline within the centuries-old broader discipline of management. Although only a few decades old, the field quickly received massive attention by the professional and academic community alike, and the number of researchers who now study it has recently increased substantially. Just like all other disciplines, crisis management was not created from scratch. Instead, it has evolved from emergency and disaster preparedness, from which it draws a set of four interrelated factors which are prevention, preparation, response and recovery (Coombs, 2007). Prevention represents the steps organizations take in order to avoid crises which includes the detection of signs which might warn of a crisis and the actions designed to prevent it. Preparation

includes the creation of a crisis management plan. It also involves selecting and briefing a crisis management team and spokespersons and creating a crisis communication plan. Response consists of the actual application of the preparation components. During the crisis, good communication strategies are essential for successful management. Recovery consists of efforts to restore environment to normal. Revision, while missing from emergency preparedness, is the last factor of crisis management. It involves the analysis and evaluation.

Crisis management is necessary to save the environment, it will helps in maintaining healthy life, bright and safe future, habitat protection, sustainable development and to ensure our existence conservation of biodiversity just like a bank deposit.

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