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Environment and Sustainability

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ABSTRACT

The sum total of all surroundings of a living organism, including natural forces and other living things, which provide conditions for development and growth as well as of danger and damage is called environment. With the progress of civilization and advancement of technology we are destroying nature in the name of development. The environment in which we live in today is degrading at an alarming rate. Thus, making it impossible for the new generation to survive. Therefore, there is a dire need of sustainable development that meets the needs of the present without compromising the ability of future generations to meet their own needs which has become a major focus of scientific research because of the potential catastrophic effects on biodiversity and human communities.

Better job opportunities, medical facilities, electricity and water supply, education, sanitation etc. are some of the leading factors that attract the rural youth to urban areas. But, this has also lead to some major problems such as local government is unable to provide services for all people; pollution from vehicles is intensified; industrialization cuts the forest cover etc.

To manage this development in eco-friendly manner we need natural resource management including land use planning, agriculture, forestry, fisheries and mining, which include growth in production. education, training, employment which aim to support economic growth, public health activities which aim to promote environmental health; modify industry and agricultural policy and programs promoting activities which involve greenhouse emissions, waste generation, reduce air pollution by upgrading energy use and alternative transport systems; create private-public partnerships to provide services such as waste disposal and housing; plant trees and incorporate the care of city green spaces as a key element in urban planning.

Keywords: Environment, Sustainability, Urban Planning, Ecological

Environment and Sustainability

Environment means everything around to a living being. Especially the circumstances of life of people or society in their life conditions. It comprises the set of natural, social and cultural values existing in a place and at a particular time, that influence in the life of the human being and in the generations to come. I.e., it is not only the space in which life develops, but it also includes living beings, objects, water, soil, air and the relations between them as well as intangibles like culture. 5 June world environment day is celebrated. "Living beings, soil, water, air, physical objects made by man and the symbolic elements (as traditions, for example) make up the environment. The conservation of this is essential to the sustainable life of current generations and generations".¹

There is no universally agreed definition on what sustainability means. There are many different views on what it is and how it can be achieved. The definition of sustainability is broad, and the world is a big, diverse place. For sustainability to remain a relevant, useful tool, it is important that it adapts to the local context. Sustainability is the process of living within the limits of available physical, natural and social resources in ways that allow the living systems in which humans are embedded to thrive in perpetuity. "Sustainability has often been defined as how biological systems endure and remain diverse and productive. But, the 21st-century definition of sustainability goes far beyond these narrow parameters. Today, it refers to the need to develop the sustainable models necessary for both the human race and planet Earth to survive"²

Sustainability is a balancing act. The United Nation's 1987 "Report of the World Commission on Environment and Development: Our Common Future"³ noted that sustainable development meets the needs of the present without compromising the well-being of future generations.

To define what environmental sustainability is we have to turn to the experts.

Herman Daly⁴, one of the early pioneers of ecological sustainability, looked at the problem from a maintenance of natural capital viewpoint. In 1990 he proposed that:

1. For renewable resources, the rate of harvest should not exceed the rate of regeneration (sustainable yield);

2. [For pollution] The rates of waste generation from projects should not exceed the assimilative capacity of the environment (sustainable waste disposal); and

3. For non-renewable resources the depletion of the non-renewable resources should require comparable development of renewable substitutes for that resource.

Concern about environment and development in the Third World has been important aspect of debate since the late 1970s, and even then awareness of the environmental aspects of development was not new.

"Sustainable development's place in the discourse of development was assured

in the early 1990s when it became the driving concept behind the United Nations Conference on Environment and Development in Rio in 1992(UNCED, or the 'Earth Summit')"⁵

The phrase 'sustainable development' is now widely used, in the fields of policy and political debate as well as research. W.M Adam further says "it seems to contain the potential to unlock the doors separating disciplines, and to break down the barriers between academic knowledge and action."⁶

Basically, the world's standard definition of environmental sustainability is sustainable development, which means sustainable economic growth, which is an oxymoron. No form of economic growth can be continued indefinitely. Furthermore, all economic growth today is terribly environmentally degrading.

Environmental management is the management of the interaction and impact of human societies on the environment. It is not, as the phrase might suggest, the management of the environment itself. Environmental resources management aims to ensure that ecosystem services are protected and maintained for future human generations. It involves the management of all components of the biophysical environment, both living (biotic) and non-living (abiotic)

Sustainability in environmental management involves managing economic, social, and ecological systems both within and outside an organizational entity so it can sustain itself and the system it exists in.

Ecologically sustainable development refers to the business practice of using, conserving, and enhancing the community's resources so that vital ecological processes are maintained for present and future generations. Ecologically sustainable development, which requires environmental, social, and economic cooperation, necessitates changes in the nature of production and consumption. Maintaining and conserving biodiversity, one of the main goals of ecologically sustainable development, refers to the variety of life form and the ecosystems in which they live.

Environmental management, since its beginnings in the 1960s, has been characterized by the need to satisfy environmental regulations. Environmental regulation refers to state and federal statutes intended to protect the environment and wildlife, prevent pollution, save endangered species, and conserve water. Also, Environmental regulations often grant individuals and organizations the right to bring legal actions to enforce the law.

Businesses of all sorts, such as airlines, oil producers, car manufacturers, and paper mills, impact the environment. As a result, the field of environmental management developed to minimize the environmental impact of business operations as well as to satisfy increasingly strict environmental laws and regulations. Thus, Environmental management refers to the process of managing business operations or activities in the best way to minimize the impact, or the potential to impact, on the environment.

While it is no doubt that true economic development at a rapid rate is a necessity to satisfy the basic human needs of its teeming millions, it should also not be at the same time forgotten that development has to be in coherence with protection of the environment, on which the survival of the human depends. Therefore, development must have the environmental perspective. Such an ideology leads to sustainable development.

Some of the practices which ensures proper management of environmental issues and therefore sustainability are described as follows:

i) To develop and strictly adhere to a national conservation strategy;

ii) To nurture capabilities for comprehensive data collection and analysis;

iii) To make scientific assessment of their environmental impact before embarking upon developmental projects.

iv) To enact suitable legislation for enforcing appropriate standards relating to emissions into the atmosphere as well as discharge into water bodies or into the bowels of the earth;

v) To enact legislation which ensure safe collection, transportation storage and disposal of toxic and hazardous waste;

vi) To promote strict adherence to laws establishing basic environmental norms for proposed settlements and for upgrading environment-friendly amenities in existing settlements;

vii) To provide safe methods of long-term storage of nuclear waste before taking up construction of nuclear power plats.

viii) To minimize, restrict and strictly control the use of chemical pesticides in agricultural practices.

ix) To insist upon land use planning and watershed management in particular, with a view to minimize and ultimately eliminate environmental degradation;

x) To carefully operationalise the sustainable development of coastal zones; and

xi) To promote environmental awareness and adherence to environmental-friendly values among the people.

The concern related to environment degradation due to increase in industrialization and urbanization is also prevalent in developed nations. Even though there is much less environmental degradation in developed countries but it is a cause of concern there too. As of now, no country, developed or developing has achieved true management practices for sustainability of the environment.

There is total agreement throughout the world that any further environmental degradation should be effectively and completely checked. Heavy pollution in some of the larger cities in the world, e.g., London, New York, Los Angeles, Bombay, Istanbul, Ankara, etc., has already taken a serious turn and the necessity to control ever growing pollution is obvious.

To achieve sustainability in the nations, following four principles can be brought to practice.

i) limit industry production scale to a level that is at least within the carrying capacity of the remaining stocks of natural capital;

ii) conceive industrial production growth within sustainable patterns, i.e., as efficient-increasing rather than throughput-increasing, e.g., pollution as waste generation;

iii) impose constraints on the uses of non-renewable natural resources, as advised by the environmentally balanced output growth models presented;

iv) exploit renewable natural capital on a sustainable basis, meaning that extraction rates should not exceed regeneration rates, and waste emissions (pollution) should not exceed the renewable assimilative capacity of the environment.

These principles can be conceived towards the functioning of the basic notion that we should satisfy the needs of the present without sacrificing the ability of future populations to meet their needs, a feasible and desirable objective. Without following these four principles, the results could be catastrophic as sustainability in environment is on the verge to get finished off completely. A conscious society, including its institutions, must find mechanisms in order to undertake efforts to make the changes required for sustainable development. Moreover, to achieve this goal, policy decisions should be supported by precise definitions of both natural capital and sustainability such as those provided in this essay. Despite the importance of general policy (macro level) such as population control and income distribution, close attention must be paid to private production activities (micro level) concerning natural resource uses. These activities must be ruled towards maintaining or increasing the current level of total natural capital, a primary condition for the attainment of sustainability.

Human beings have become an increasingly powerful environmental force over the last 10,000 years. With the advent of agriculture 8,000 years ago, we began to change the land.⁸ And with the industrial revolution, we began to affect our atmosphere. Urban populations interact with their environment. Urban people change their environment through their consumption of food, energy, water, and land. And in turn, the polluted urban environment affects the health and quality of life of the urban population.

Urban populations consume more food & more durable goods. For instance, in the early 1990s, Chinese households in urban areas were two times more likely to have a TV, eight times more likely to have a washing machine, and 25 times more likely to have a refrigerator than rural households. This increased consumption is a function of urban labour markets, wages, and household structure. Also, Energy consumption for electricity, transportation, cooking, and heating is much higher in urban areas than in rural villages. For example, urban populations have many more cars than rural populations per capita. Almost all of the cars in the world in the 1930s were in the United States. Today we have a car for every two people in the United States. If that became the norm, in 2050 there would be 5.3 billion cars in the world, all using energy.⁹

Urbanization additionally influences the more extensive territorial conditions. Industrialization affects precipitation, air contamination, and the quantity of days with thunderstorms. Overall, Urbanization influence the climate designs and also decreases the penetration of water and lowers the water tables.

Therefore, to conclude, one should sustain and preserve environment and use natural resources judiciously in a sustainable manner. We all know what we need to do to protect the environment, whether that is recycling, reducing our power consumption by switching electronic devices off rather than using standby, by walking short journeys instead of taking the bus. Businesses are regulated to prevent pollution and to keep their own carbon emissions low. There are incentives to installing renewable power sources in our homes and businesses. Environmental protection is the third pillar and to many, the primary concern of the future of humanity. It defines how we should study and protect ecosystems, air quality, integrity and sustainability of our resources and focusing on the elements that place stress on the environment. It also concerns how technology will drive our greener future.

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