

A Review on the Sustainable Development and Ethics of the Environment

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ABSTRACT: *The natural resources are badly exploited by humans due to scientific and technological development. So there arises the need of the conservation of the natural resources. The conservation of environmental resources refers to management of human use of biosphere so that it yields maximum sustainable benefit to the present generation while maintaining its potential to meet the requirements of the future generations. This newer concept of development has come to be known as “Sustainable Development”, Sustainable development means' addressing today's needs without undermining future generations' capacity to fulfill their own needs. It is a very complicated and broad definition that combines the following concepts. Principles to which development practices are explicitly or indirectly applicable: (a) economic sustainability; (b) environmental sustainability; (c) social sustainability; and (d) cultural sustainability. There are intra-generational as well as inter-generational equities and many approaches to sustainable growth. It also has some major steps that will be presented here.*

KEYWORDS: *Biodiversity, Carrying Capacity, Environmental Ethics, Generational Equity, Sustainable Development.*

1. INTRODUCTION

Environmental resource protection refers to the management of the human use of the biosphere in order to provide the present generation with full environmental benefit while preserving its ability to meet the needs of future generations. This new definition of growth has become known as "Sustainable Development," described as "development that meets the needs of the present without compromising the ability of future generations to satisfy their own needs." The Norwegian Prime Minister, Gro Harlem Brundtland, who was also the Director-General of the World Health Organization (WHO) from 1998 to 2003, provided this concept. She chaired the UN's World Commission for Environment and Development (the Brundtland Commission), published the report 'Our Common Future,' also known as the “Brundtland Report,” in 1987. Influenced by the International Union for Conservation of Nature's (IUCN) 'World Conservation Plan' of 1980, the study established the concept of sustainable development as stated above. The publication of the report is seen as a landmark in raising international awareness of the value of global sustainable development and in the debate. Sustainable development has become a buzz word today and hundreds of projects have been launched on behalf of developing sustainably.

As a consequence of scientific and technological progress, natural resources are poorly abused by humans. Air, water and food are all contaminated and through overexploitation of natural resources, people are heading towards indiscriminate growth. If growth continues in the same way, in their world-famous academic study "doom day" humans will face a "The Limits to Growth" very soon. In fact, this is unsustainable growth that will lead to the inter-related collapse of this planet's processes. [1].

1.1 Development from the Unsustainability towards the Sustainability

When current advancement is at the detriment of future generations, unsustainable growth occurs. Irresponsible preparation and degrading the climate. Some of the reasons are the production of waste and contaminants through the use of resources. In the long run, such activities are not sustainable. Climate warming, ozone shield depletion, land and water acidification, desertification and soil degradation, deforestation and forest decline, reduced land and water productivity, and the extinction of species and populations indicate that the demand for human beings exceeds the capacity to sustain the environment. Environmental destruction, inadequate planning and the indiscriminate exploitation of resources are signs of unsustainable growth. Excess levels of waste and contaminants have worsening effects on the environment, destroying biodiversity in turn. Sustainable development, actually, is not a new phenomenon. It literally means living in harmony with nature in complete appreciation of the needs of all other animals. This is not just 'survival of the fittest,' for each species has a role to play that is eventually beneficial to the planet and all its human population, humans must assist even the weakest of the species to survive. The needs of people in different parts of the globe may vary, but there is a common dependence on nature. The most important thing to note is that there is only one world, and our children will not have a place to live if we ruin it by our actions. Therefore, the harmonious coexistence of all living beings in a balanced way with the world is an essential requirement today[2].

True sustainable development is the best use of natural resources with a high level of reusability, minimal waste, minimum toxic generation. By products and optimum performance. The multi-dimensional definition of sustainable development integrates the interactions between society, economic and environmental issues. It also looks at gender and age equality, races and genders, nations and continents. It requires, on the one hand, social growth and economic opportunities and, on the other, environmental requirements. It is focused on improving the quality of life for all, especially the poor and the poor, within the carrying capacity of the ecosystem assisting. It is a mechanism that results in a better quality of life while reducing the environmental effects.

The sustainable development has both intergenerational and intra-generational equities as following:

- Intergenerational equity: this form of equity reflects, for the benefit of future generations, the protection of natural resources and the environment. It expects minimal adverse impacts for future generations on resources and the climate, i.e. we should pass on to our future generations a stable, secure and resourceful environment. This is only possible here if we (a) avoid resource over-exploitation (b) reduce discharge of waste and pollution (c) preserve ecological balance.
- Intra-generational equity: In terms of resource use, it deals with equality within the same generation. It requires the equal use of global resources among the people of the present generation. Around the global stage. The principle of intra-generational equity provides every participant of a single generation with rights and obligations to use and take moderate care of renewable and non-renewable resources among the members of the single generation. That century. It stresses that the mechanisms of growth should aim to minimize the wealth differences within and between nations. Development-

related technological development can promote the economic growth of developing countries and help to narrow the gap in income and contribute to sustainability[2].

The Sustainable Development Indicators (SDI) are the different statistical values that assess the ability to meet current and future needs collectively. The SDI would provide information vital to national policy decisions and to the general public. The following are some important sustainable development measures:

- Usage of appropriate technology: This technology is one that is locally adaptable, environmentally sustainable, resource-efficient and culturally appropriate. Local capital and local labor are mostly involved. More useful, cost-effective and sustainable are indigenous technologies. Technology can make less use of resources and create less waste.
- Reduce, Reuse and Recycle Approach: In order to meet the goals of sustainability, this 3-R approach stresses the minimization of resource use, using them again and again instead of throwing them on to the waste stream and recycling the resources goes a long way[3]. As well as reducing waste generation and emissions, it decreases pressure on our energy.
- Environmental Education and Awareness Promotion: Environmental education will profoundly help to shift people's thought habits and perceptions towards our world and the environment[2]. Introducing the topic right from the school level would create a healthy and caring feeling for young children on earth. Planet thinking will eventually be integrated into our minds and behaviours that will greatly help turn our lifestyles into sustainable ones.
- Improving social, cultural and economic dimensions: growth does not rely only on one group of people who are already affluent. It should instead require the sharing of advantages between the wealthy and the poor. It should also protect the tribal, national, and cultural heritage of the people. There should be good group engagement in policy and practice. Development in populations should be stabilized.
- Use of resources according to carrying capacity: Any system can support a limited number of species, known as its carrying capacity, on a long-term basis. But in order to sustain the quality of life, human beings not only need food to survive, but also need so many other things. The viability of a scheme is largely dependent on the system's carrying capacity. If the carrying element is a system's potential is crossed by over-exploitation of a resource, beginning and continuing environmental degradation until it reaches a point of no return[4].

2. REVIEW OF LITERATURE

Donella H. Meadows in one of the study discusses about population, food production, industrialisation, pollution, and non-renewable natural resource use that are all on the rise, according to the research. The rate at which they expand each year follows a mathematical pattern known as exponential growth. Exponential growth curves may be used to describe almost all of humanity's current activities, from fertilizer usage to city development (see figures 2 and 3). Because so much of this book is on the origins and consequences of exponential growth curves, it's essential to start with a basic knowledge of their features[5].

Seulkee Hoe in her study focuses on the link between green space and a lower death rate, the influence of green space alteration on the impact of air pollution on health outcomes is understudied. Using data from 364 metropolitan U.S. counties from 2000 to 2013, we investigated whether green space influences correlations between short-term exposure to particulate matter (PM₁₀, PM_{2.5}) and hospitalization. The normalized differential vegetation index was used to calculate the amount of green space (NDVI). The risk was calculated as a percent change in hospitalization linked to a 10g/m³ increase in particulate matter based on the daily number of hospital admissions for cardiovascular or respiratory illnesses from Medicare participants (>65yrs) and air quality monitoring data for each county. The difference in county-level NDVI was used to calculate an absolute change in county-specific relative risks. According to the findings, the link between air pollution and health is less in places with greater green space. We calculated that a 1.68 percent (95 percent CI: 0.43, 2.91) decrease in the association between PM₁₀ and cardiovascular hospitalization and a 10.40 percent (95 percent CI: 7.34, 13.34) decrease in the PM₁₀-hospitalization association of acute myocardial infarction with an interquartile range increase in NDVI. Cardiovascular hospitalizations were shown to have a 0.18 percent (95 percent CI: 0.39, 0.73) absolute reduction in relative risk when PM_{2.5} was present. The PM₁₀-hospitalization connection with increased NDVI was reduced more in younger age groups (65–74, 75–84yrs) than in older age groups (>85yrs), but not for the PM_{2.5}-hospitalization association. These results add to the growing body of data that green space reduces the health effects of particulate matter on hospitalizations among the elderly in the United States[6].

Edenhofer in his study discloses that Working Group III of the Intergovernmental Panel on Climate Change (IPCC) produced the third section of the IPCC's Fifth Assessment Report (AR5), Climate Change 2013/2014. The book offers a thorough and transparent evaluation of relevant alternatives for reducing or avoiding greenhouse gas (GHG) emissions, as well as actions that decrease their concentrations in the atmosphere, in order to mitigate climate change[1].

3. DISCUSSION

3.1 *Ethics of the Environment*

Environmental ethics is a type of philosophy which deals with the study of human and environmental relationships. It requires a moral account of the human approach to natural resources and assumes that as a member of humanity, humans and other living beings. Morality refers to the idea of 'right or wrong' applied to human ethics, used in three contexts: individual conscience, values and decisions. Collectively, all three constitute moral principles. Moral values that aim to describe one's environmental obligation are referred to as 'environmental ethics' or 'environmental philosophy' that takes into account the ethical relationship between humans and the natural environment. Therefore, environmental ethics investigate the relationship between humans and the environment and how ethics play a part in this. Environmental ethics agree that, like plants and livestock, humans are a part of society as well as all living beings. As a consequence of (1) recent influences on nature, (2) new awareness about environmental ethics has emerged and (3) increasing moral issues[7].

3.2 *Unsustainable To Sustainable Development:*

When current progress is made at the cost of future generations, this is known as unsustainable development. Some of the causes include irresponsible planning and environmental deterioration caused by resource extraction, waste production, and pollution. In the long run, such behaviours are unsustainable. Global warming, ozone depletion, acidification of land and water, desertification and soil loss, deforestation and forest decline, declining land and water productivity, and extinction of species and populations all show that human demand exceeds natural support capabilities. Environmental deterioration, poor planning, and indiscriminate resource exploitation are all symptoms of unsustainable development. Excessive wastes and pollutants degrade ecosystems, causing biodiversity to suffer.

In reality, the idea of sustainable development is not new. Simply put, it means living in peace with environment while fully acknowledging the requirements of all other species. This isn't simply a case of 'survival of the fittest;' people must also assist the weakest species in surviving, since each species has a function to perform that is ultimately beneficial to the planet and its whole human population. People's needs in various areas of the world may differ, yet their reliance on nature is universal. The most essential thing to keep in mind is that there is only one earth, and if we destroy it by our actions, our children will be without a home. As a result, a balanced cohabitation of all living things with the environment is an unavoidable need of today. True sustainable development entails the most efficient use of natural resources, with a high degree of reusability, little waste, minimal hazardous by-product production, and maximum output. Sustainable development is a multi-dimensional term that takes into account the connections between society, the economy, and the environment. It also considers gender and age disparities, as well as racial and class disparities, as well as equality between nations and continents. On the one side, it encompasses social growth and economic opportunity, while on the other, it encompasses environmental needs. It is based on enhancing the quality of life for all people, particularly the poor and disadvantaged, while remaining within the carrying capacity of the supporting ecosystems. It is a procedure that improves one's quality of life while minimizing one's environmental effect[8].

The following are intergenerational and intragenerational equity in sustainable development:

3.2.1 Intergenerational equity:

This kind of equity entails the protection of natural resources and the environment for future generations' benefit. It anticipates minimal negative effects on resources and the environment for future generations, implying that we should leave future generations with a safe, healthy, and resourceful environment. This is only feasible if we (a) cease over-using resources, and (b) decrease waste discharge and emissions. (c) keep the environment in a healthy state[9].

3.2.2 Intra-generational equity:

This refers to resource usage equality among members of the same generation. It entails the equitable distribution of world resources among the current generation of human beings on a global scale. Intra-generational equality confers rights and responsibilities on each member of a single generation to reasonably utilize and care for renewable and non-renewable resources among the generation's members. It stresses that development processes should aim to reduce income disparities within and between countries. The development of technology

in developing nations will assist impoverished countries' economic progress, help to close the wealth gap, and contribute to long-term sustainability[10].

3.3 SDIs (Sustainable Development Indicators):

They are a set of statistical values that evaluate a country's ability to fulfill current and future requirements. SDI will offer critical information to national policymakers and the general public. The following are some key indicators for long-term development:

3.3.1 Using Appropriate Technology:

Appropriate technology is adaptive to local conditions, environmentally benign, resource efficient, and culturally appropriate. It mainly makes use of local resources and labor. Native technology are more practical, cost-effective, and long-term. The technique should utilize less resources and create the least amount of trash[11].

3.3.2 Reduce, Reuse, and Recycle Method:

This 3-R approach emphasizes minimizing resource consumption, reusing them instead of throwing them away, and recycling the materials, which goes a long way toward achieving sustainability objectives. It lessens the strain on our resources while also lowering trash production and pollution[12].

3.3.3 Promoting Environmental Education and Awareness:

Environmental education will go a long way toward altering people's attitudes and thoughts about our planet and the environment. Small children will acquire a good and loving attitude toward the planet if the topic is introduced at an early age in school. 'Earth thinking' will gradually become ingrained in our minds and actions, significantly assisting in the transformation of our lives to more sustainable ones[8].

3.3.4 Improving Social, Cultural, and Economic Dimensions:

Development should not be limited to a small group of already wealthy individuals. Rather, it should incorporate a benefit sharing system that helps both the wealthy and the poor. Tribal and ethnic peoples, as well as their cultural legacy, should be preserved. In policy and practice, there should be a strong emphasis on community involvement. The rate of population increase should be slowed[7].

3.3.5 Resource Utilization based on Carrying Capacity:

A system's carrying capacity is the maximum number of organisms it can support over time. Humans, on the other hand, need not just food to survive, but also a variety of other necessities to sustain their quality of life. The carrying capacity of a system is crucial to its long-term viability. When a system's carrying capacity is exceeded due to resource overexploitation, environmental deterioration begins and continues until it reaches a point of no return. The carrying capacity includes two fundamental components: (i) supporting capacity, which refers to the ability to regenerate, and (ii) assimilative capacity, which refers to the ability to withstand various stressors. It is essential to use resources in accordance with the system's above two characteristics in order to achieve sustainability. Consumption should not exceed

regeneration, and alterations should not be permitted to exceed the system's tolerance capacity[5].

4. CONCLUSION

Human beings should (a) comply with appropriate environmental ethics in order to achieve sustainable growth, (b) reduce harmful anthropogenic agents (c) eliminate poverty and hunger; (d) provide everyone with water, sanitation, clean energy and safe living; (e) promote inclusive education and growth; (f) care for the planet, the atmosphere and biodiversity; and (f) promote inclusive education and development (g) Facilitate cooperation between various social partners in order to establish an atmosphere of peace and harmony with equality between genders and ages, between races and groups, between nations and continents around the world.

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