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SUSTAINABILITY & THE ENVIRONMENT MANAGEMENT IN THE UNDERDEVELOPED COUNTRIES

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ABSTRACT

Purpose: To focus on the concept of sustainability and the environmental management by concerning its dimensions, challenges and opportunities that are helpful in maintaining the sustainable environment in the underdeveloped countries.

Methodology: Qualitative research design has been employed to evaluate the sustainability and its development in the regions that are lacking sustainable environment.

Findings: The World Conference on Environment and Development (WCED) has emphasized on the insistence of issues and challenges of sustainable development. Sustainable development might bring the change in the underdeveloped countries especially for the poorer groups, as the objectives of sustainability are enough to bring sustainable economic and social welfare. Environmental, economic and social dimensions can prove to be the main source of transformation in the society by being interrelated.

Originality: Sustainable development has been identified as a significant element to bring improvements in underdeveloped countries, particularly for poorer groups.

Practical Implications: The paper has identified in some aspects the beginning of the notion of sustainable development and its existing means in terms of decisions and alternative patterns of development to meet the requirements of the global community.

Keywords: Sustainability, Environment, Sustainable Development, Underdeveloped Countries

1. INTRODUCTION

An independent group of 22 people was established for the developed and developing countries from the member states by United Nations in 1984. It was charged by recognizing the environmental strategies for the communities internationally. A report was published by World Conference on Environment and Development (WCED) entitled “Our Common Future”, which

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is often named as the "Bruntland Report. This report used the term sustainable development extensively and explained it as the development that meets the requirements of the present situations of underdeveloped countries without compromising the capability of the upcoming generations to gather their own requirements. It was apparent during 1990s that there was considerable contestation and debate regarding the practice and meaning of sustainable development for the underdeveloped countries. Evidently, the sustainable development has been considered an important and central challenge for the international organizations and the governments globally. For instance, the government of United Kingdom has some principles of sustainable development that includes, living with environmental limits, achieving a sustainable economy, promoting good governance, using sound science responsibly and ensuring a healthy, strong and just society (Elliott, J., 2012).

The main aim of the paper was to focus on the concept of sustainability development and its challenges and opportunities in the less economically developed countries of the world. This is not to advise that sustainable development is a major issue for the poor. In reality, most resource consumption is the result of wealth, not poverty. There are wide ranges of challenges for sustainable development linked with the changing patterns of consumption, particularly in the Global North. Furthermore, few of the most important and innovative responses to the challenges of sustainable development can be seen in the countries within the developing regions. However, there are also distinct and particular issues of sustainable development in the developing world. These regions might encompass many of the fragile lands of the world such as the forest ecosystems, semi-arid and major arid zones. In these places, some of the lowest levels of the worldwide human development with some bio-physical factors, in contrast, might make them specifically susceptible of humiliation. It might also make recovery from the economic and natural shocks, including climate change (Reid, D., 2013).

2. LITERATURE REVIEW

2.1 The Idea of Sustainable Development

The maintenance of development in the underdeveloped countries over time refers to the term sustainable development. Many different fields have contributed and influenced to the debate concerning the sustainable development, resulting in different postulations about the relation between the human and environmental subject. The confronts of recognizing the idea of sustainable development and identifying the efforts, which can work towards it, have been clearly mentioned in a brief analysis of the idea of sustainable development presented by the WCED (Elliott, J., 2012).

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Sustainable development includes a very important moral factor, an obvious right of every individual to the fair and proper share of the resources of the planet. In a broader sense, sustainability is linked with the justice in distribution that is the distribution of potential for development between future as well as the present generation. Then sustainable development might be defined as better and enhanced quality of life of the present and the future generations.

The report of WCED has clearly mentioned the challenges of using the idea of sustainable development. There are some critical objectives that have been identified by the Commission and the essential conditions for sustainable development in the future apparently including the scale of activity and huge breadth (Ciegis, R., Ramanauskiene, J. and Martinkus, B., 2015). A more secure and prosperous global future has been set to depend on new regulations and norms of behaviour in the interest of all. The situations for such future include all fields of human activities in trade, production, politics, and technology. It also encompasses mutually supportive and cooperative actions on behalf of nations and individuals at all levels of economic development (Elliott, J., 2012). The objectives and necessary conditions for sustainable development are as follow:

2.2 Critical Objectives

- Transforming the growth quality
- Reviving growth
- Meeting fundamental needs for food, energy, job, sanitation and water
- Enhancing and conserving the resource base
- Managing risk and reorientation of technology
- Merging economics and environment in decision-making

The World Commission on Environment and Development (WCED) identified the following requirements to create an environment of sustainable development:

- A system of politics that supports effective national participation in decision-making.
- A system of economics that provides for the anxiety arising from disharmonious development.
- A system of production that admire the obligations to preserve the base of ecology for development.
- A system of technology that promotes the sustainable patterns of finance and trade.
- An international system that promotes sustainable patterns of finance and trade.

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- A system of administration has the capacity for self-correction and is flexible to make necessary amendments.

Most descriptions of sustainable development include the plan that there are three inter-reliant pillars of sustainable development: social, economic and environmental. There are three interlocking circles as shown in figure 1. The main objective of sustainable development is to capitalize on the aims transversely all three systems and is exemplified by the connection of these circles. Decisively, the model covers the thoughtfulness that every system goals which are identified in the figure are socially assembled and that attaining sustainable development entails trade-offs. The preferences have to be made some specific points in time and at meticulous scales as to what is going to be followed and how sustainable development needs an appreciation of the costs occupied for particular interests and group of people (Bakhtiari, S., 2014).

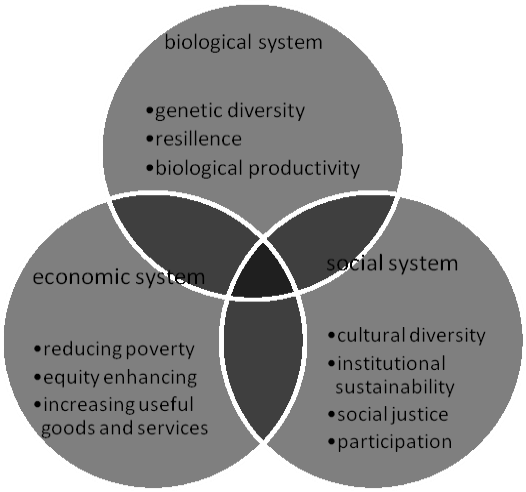

Figure 1: The objectives of sustainability development

2.3 Main Dimensions of Sustainable Development

As a common perception, sustainable development includes three basic approaches environmental, social, and economic developments, which are complementary and interrelated. Conventionally, the conception of sustainable development also entails similar corresponding components as three magnitudes of welfare (Telfer, D.J., and Sharpley, R., 2015). The three pillars of sustainable development can be seen in Figure 2.

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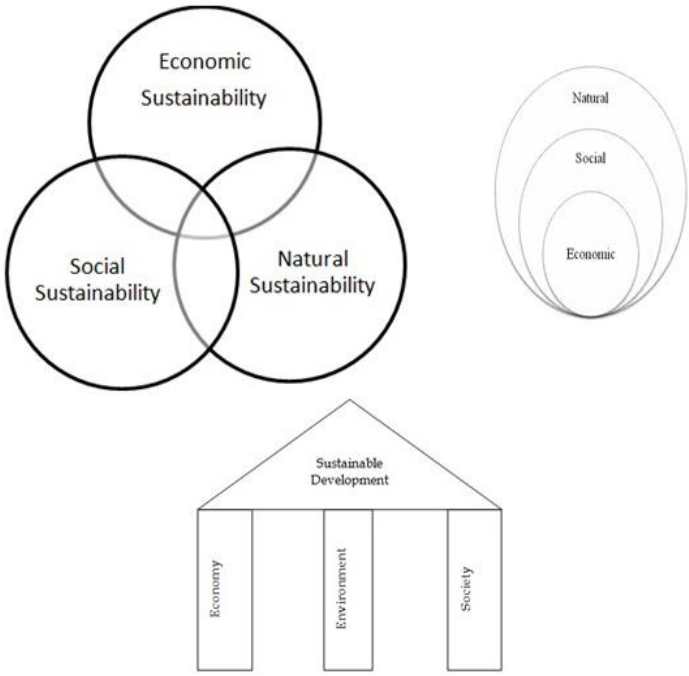

Figure 2: Depictions of sustainable development

Such architectural symbol confirms the requirement to consider the ecological, economic and social arenas equally and together if the development is sustainable and the building is to remain upright. Though, such interpretations are less effective for interconnections and communicating between the uprights and the need to combine the action and thinking in the sustainable development across traditional boundaries of discipline and established departments of policy-making. These standards of sustainable development are possibly better depicted by the interlocking circles with sustainable development as where the circles meet. Such portrayal provides attention to the aim of sustainable development as seeking to develop the goals across all three dimensions at the same time and perhaps the chances of mutually supportive gains that can be developed through the actions of sustainable development. The small areas of overlap relative to the whole sphere depict the unsustainable nature of the activity, but it also offers the idea of the prospective to develop this area of optimistic overlap. Prominently, this model supports the idea that achieving the sustainable development in performance regularly involves the trade-offs across different spheres that complicated choices have to be made at specific moments and at particular scales as to what and how the goals are being pursued (Holden, E., Linnerud, K. and Banister, D., 2014).

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Moreover, a depiction of sustainable development is of nested or concentric circles where the spheres of society and economy are represented as embedded in a broader circle of ecology. This depicts an understanding of environmental constraints setting the boundaries within which a sustainable society and economy must be required. This model represents a better picture of how all the activities of human depends primarily on nature and portrays more apparently how the activities that harm the functioning of natural systems eventually deteriorate the basis of human existence itself.

In recent times, there have been recommendations that a further pillar sphere is needed for sustainable development of cultural diversity as the root of more spiritual, ethical moral and sustainable way of life (Atkinson, G., Dietz, S., Neumayer, E. et al., 2014).
The regulation of economics has also been essential in shaping the idea and practice of sustainable development. A range of means for pertaining economic calculations to environmental resources towards resource functions and costing resources have also been developed by the ecological economists (Aras, G., and Crowther, D., 2016).
The problems with the low level of economic developments, the issues of debt and the challenges of searching the policies to promote new economic opportunities in ways that enhance the sustainable development and the human development as well in the developing world. While many of the modifications towards the sustainable development processes and patterns have been seen to be effected without the huge transfer of the financial resources, many are based on the significant shifts in the power of politics. Particularly, it has been observed that the empowerment of local communities is an essential condition of sustainable development and the alleviation of poverty. Very often in the past processes of development have served to weaken the local control over the resources on which they have lead to increase the insecurity of environmental and livelihood degradation.

2.4 Risk Reduction through Sustainable Development

Disaster risk reduction and sustainable development are intimately associated with many stages. Disasters often append overwhelming costs to the communities and societies concerning financial losses, loss of life, and damaged infrastructure. They can set development back in the underdeveloped countries for years. Lack of sustainable development and environmental destruction intensify the impact and risk of disaster in many areas. The change in climate has also developed uncertainty and risks. Regardless of the apparent relations, the climate change, disaster risk, and sustainable development, communities have moved towards the common solutions from a different perspective (Uitto, J.I., and Shaw, R., 2016).

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In the year 2000, as a follow-up to policy International decade for natural disaster reduction (IDNDR), the member states of United Nations adopted the ISDR (International Strategy for Disaster) as the prime mechanism for raising the efforts of politics to decrease the man-made and natural disasters. The decree of ISDR is to act as the central point within the system of United Nations for the coordination of disaster reduction and to make sure that the disaster reduction becomes essential to all the sustainable development, humanitarian policies, and environmental protection. Basically, the ISDR consists of a wide collection of partnership embracing intergovernmental and non-governmental organization, governments, technical and scientific bodies, financial institutions as well as the civil society and private sectors (Zimmermann, M., and Keiler, M., 2015). Moreover, the need to create communities more strong to disaster in order to gain sustainable development in the future is recognized. A World Conference on Disaster Reduction held in Japan in 2005 produced the Hygo Framework for Action (HFA) that was adopted by one hundred and sixty-eight countries for actions during 2005-2015 (Smith, K., 2013). The HFA aimed to:

- Confirm that disaster risk reduction is a local and national priority supported by powerful institutions.
- Assess, identify and monitor the disaster risks and augment the provision of early warning.
- Increase knowledge, innovation and capacity to build a culture of hazard flexibility and safety at all levels.
- Assimilate all the measures of disaster reduction, programmes, and mitigation to decline the vulnerability into sustainable development strategies.

2.5 Opportunities and Challenges of Sustainable development

The patterns of sustainable development have been of great importance. The challenges faced in the sustainable development might appear to be as a whole to the global community and it is apparent through the analysis of the integrated social, economic and environmental results of the development in the past (Ghai & Vivan, 2014). Many of the challenges and opportunities for the prospect are obvious and manifested spatially. The understanding of the positive collection of people has been traditionally excluded from accessing the basic chances for growth and satisfactory quality of life. It is significant to know where they live now, in the future the barriers they face and the capabilities that they carry out towards transformation of the processes of development. People pursue different practices and activities in different places such as in urban and rural areas that generate different socioeconomic and environmental challenges and opportunities. Moreover, different places are categorized by diverse ecologies and resource endowment that emerge through the adoption to the processes of change and local conditions.

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This ensures the nature of the opportunities and challenges for sustainable development is becoming locally distinct and firstly become apparent at this extent (Elliott, J., 2012).

2.6 New and Emerging Challenges in the Underdeveloped Countries

There are several challenges that can be identified during the development of political governance in the underdeveloped countries (Fraser, E.D et al., 2006). The institutional propensity to concentrate on these matters fails to report for the integrated nature and cross-sectoral of these subjects. For instance, deforestation, climate change, land degradation, drought, desertification, and low pliability to natural exposures and the impact of disasters influence economic and social well-being of many communities. Additionally, the efforts of the development of continent are hindered by difficulties in technology transfer, energy poverty, and dependency on extractive industries, the consumption patterns and unsustainable production, low dissemination of the services of ICT, insufficient infrastructure, and weak institutional capacity are also hampered. Rapid population growth and non-inclusive economic growth hastened by the lack of admittance to reproductive services of health have stimulated urbanization, high levels of migration, ongoing food and health insecurity and youth unemployment (Mabogunje, A., 2015).
Concerns about the environmental quality, economic vitality, social equity and the threat of changing climate have converged to produce a rising interest in the idea of sustainable development. Efforts have been made to increase the sustainability of development patterns all over the world. In countries, with more advanced economies, particular attention is being paid to the crucial roles performed by the land use, activity system and transportation as a part of a wide strategy of land use planning and transportation for sustainability (de la Poterie, A.T., and Baudoin, M.A., 2015). Strategies and other working policies for augmenting the sustainability of transportation in the underdeveloped countries include the operation management, demand management, vehicle technology enhancement, pricing policies, integrated use of and, lean fuels and the transportation planning for sustainability. Previously, implementation and planning of such strategies have been spotty and slow, discouraged by the complexities of the underlying problems along with the risk of the timing and magnitude of impacts, the efficiency of available course of actions, and the effect of actions or inactions. Although, a new interest enthusiastically following these strategies has appeared. Regional planners are frequently being asked to play the role of leadership in the planning efforts, enhancing and applying their expertise to analyze the issues and creating platforms for discussion, joint undertaking, and conflict resolution (Reyers, B., Nel, J.L., O'Farrell, et al., 2015).

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2.7 Research Objectives

The research objective is based on the idea of sustainable development. The aim of the study has been to arrange different forms of sustainable development and its dimensions for better processes. In order to accomplish these aims, the subsequent tasks of research have been:

- To classify and analyze the definition of sustainable development.
- To analyze the concept of sustainable development.
- To present a systematic view of the dimensions of sustainable development, especially environmental development in the underdeveloped countries.
- To present the risk situations in the underdeveloped countries and the role of sustainable development in overcoming those situations.

One of the main aim of the paper was to underline the progress that has been made towards the establishment of the processes of development and new patterns which are more sustainable in terms of the demands they make on the cultural, ecological and physical resources of the globe, and the features of societal organization, economic production, and technology that underpins them. Understanding the features of accomplished sustainable development projects will be fundamental for meeting the ongoing challenges of balancing current requirements against those of the future in the underdeveloped countries, the main dimensions of sustainable development, risk reduction through the sustainable development and new challenges and opportunities in the underdeveloped countries.

3. METHODOLOGY

Qualitative research design has been opted to evaluate the concept and factors of sustainability & the environment management in the underdeveloped countries.
Recognition of the necessary characteristics in regards to sustainable development, the techniques of the sustainable development management, the clarification and comparison of their processes, theoretical issues with the evaluation of sustainable development, and conceptual description has been incorporated.

The variables examined during the process of research were the main idea and the concept of sustainable development and its objectives declared by the World Conference on Environment and Development (WCED). Qualitative research approach has been used in this study to identify the sustainability and the environment management in the underdeveloped countries. This approach has been opted to evaluate the concept of sustainability by concerning previous studies in order to make the study more valid and reliable.

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4. DISCUSSION

Problems concerning the definition of sustainable development show that sustainable development is a multi-domain and complex issue, which has to gather competency, intergenerational equity on environmental, social and economic field. The policies of sustainable development have been presented in the literature that can be organized into numerous thematic grounds.

While potentially all the disciplines are employed in some way with the concept and idea of sustainable development, the prior contributions came widely from the environmental spheres. Environmental disciplines especially the conservation biology and notably ecology, was especially well-known in important early work towards accepting the emerging environmental issues and in managing and designing the measures to guard valued environments (Szabó, P., 2015). These evidences gave a clear perception to support the environmental movements and were active in international legislation such as the Convention on Biological Diversity approved at the Rio Earth Summit (Schmitt, J., Garcia, J., Ribeiro, et al., 2016). Across the environmental sciences, many types of research continue to update major global studies such as understanding climate change and UN Millennium Ecosystem Assessment. This comparatively new field of study is focused on integrating the chemical, biological and physical change in the underdeveloped countries. Development of ICT (Information Communication Technology) has been very essential in enabling the manufacture of sophisticated modeling that is the main part of Earth System Science and in the creation of vast databases.

The economic discipline has also been very important in shaping the practices and concept of sustainable development especially in the underdeveloped countries (Mowforth, M., and Munt, I., 2015). Their role in developing the idea of 'critical natural capital' is explored. For economists, many forms of 'capital' offer the capability to originate the competence of human well-being. These are human capital including skills, technology, and knowledge. They have recognized that the environmental resources are changed in terms of their volume, function, and location that they provide for the economic activity. Moreover, the environmental resources vary in terms of whether they can be replaced by other resources (Iniesta-Bonillo, M.A., Sánchez-Fernández, R. and Jiménez-Castillo, D., 2016).

Ecological economists have also developed a series of applying the calculations of economics to environmental resources towards resource functions and resource costing both as an input to the economic activity in terms of pollution and degradation (Aras, G., and Crowther, D., 2016). This paper has underpinned a host of what are market-based mechanisms in terms of achieving the sustainable development in practice. Fundamentally, market-based mechanisms include

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measures to change the economic costs of specific production and behavior practices towards more sustainable results in the underdeveloped countries. General examples might be the environmental taxes on solid waste disposal and on the use of petrol that make these practices more expensive to businesses and individuals.

Discussions of sustainable development as a political process have been taken up by many social sciences based on the questions of outcomes and power for a specific group of people across time and space (Watson, G.B., 2016). Precisely, this work has raised the sustainable development in the underdeveloped states as a moral idea that seeks to explain the 'fair' and 'just' development. The idea of environmental justice has now been a prominent part of current discussions of practice and meaning of sustainable development. It refers in particular to the distributional arguments around the environment as the results of development that are arising now and being disproportionately felt by social groups within the current generation. This idea is for how the degradation of ecosystem functioning and pollution that are included in environmental 'bads' and access to the environmental resources that might be the basis for the recreational and health opportunities, included in environmental 'goods' are distributed across the society in the underdeveloped regions. Environmental justice also includes a concern for the environmental management intervention's equity and the nature of individual's engagements in the decision-making (Elliott, J., 2012).

But creating and transferring the control and power within society groups in developing countries relies on many consistent actions across the hierarchy of levels. While such actions might not be exclusive, they do need tricky political pronouncements and often reflective changes. This relate as much to customers in the more industrialized countries, professionals in development research and along with government leaders in national and international discussions, as it does to the NGO staff, city planners, and to women and men in the societies of the developing world themselves but constant changes are mandatory (Golub, T.P., 2015).

Evidently, it is a challenge to understand the concept of sustainable development in the underdeveloped countries. It is evident that sustainable development holds a rejection of things as they are in regards to current patterns of development and environment globally. Although, sustainable development is not a recognizable end-point or state but it needs ongoing critical consideration of the managements of decision making and developments across all the spheres of life.

5. CONCLUSION

The issues and complications of sustainability must be resolved and examined on the system levels, and the authorities must develop and manifest sustainability in the society. In view of the

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fact that the issues of sustainability should be solved and analyzed on the system levels for the underdeveloped countries, where they manifest and develop themselves. Any community might be able to consistently prepare personal aims of the sustainable development policy for personal aspects of sustainable development. Almost 25 years since the World Conference on Environment and Development (WCED) emphasized the perseverance of challenges of sustainable development; it is clear that environmental degradation endures threatening social cohesion, development opportunities, human well-being and factors including population growth and increasing growth consumption have positioned increased pressure on the regions of a global environment. Although, the paper has also underlined the understanding of interlaces between the development and environment challenges grown in recent years. The environmental services and systems are the source for human well-being worldwide but specifically for the poorer groups and in the states where human development is presently lowest. It is understood that not only poverty is the challenge for the maintenance and preservation of resources, but the environmental degradation is a matter of justice and threatens the basic rights when some individual's opportunities for development are confined by the actions of others.

If the current model of economic wealth creation that is linked with the rising threats to human development presently and to the well-being of upcoming generations, can this be considered progress for the underdeveloped countries? Moving to the lower carbon growth of economy courses is understood to hold challenges of change in transportation, consumption, and consumption. While the new opportunities for the growth of economy are also envisioned through the technological innovations in energy efficacy and renewables, these might also bring new political and environmental challenges.

5.1 Limitations

The research was limited to the factors involving the sustainable development and its dimensions to perk up the situations of the underdeveloped countries.

5.2 Future Recommendations

Future studies might consider some specific underdeveloped countries and evaluate their role in the development of sustainability concerning the roles of its dimensions as well.

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