

Sustainable Development and Biodiversity

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Abstract

Sustainable development and biodiversity conservation are inseparable components crucial for ensuring the long-term health and resilience of our planet. This paper delves into the interconnectedness of these two vital concepts, emphasizing the need for a harmonious coexistence to address global challenges and foster a sustainable future. Sustainable development, as a multidimensional paradigm, seeks to meet the present needs without compromising the ability of future generations to meet their own. In this context, biodiversity plays a pivotal role, providing essential ecosystem services, such as clean air, water purification, climate regulation, and disease control. The conservation of biodiversity is, therefore, integral to the sustainable development agenda. The paper explores the origin of intricate relationships between biodiversity and sustainable development through international deliberations, emphasizing that a thriving natural environment is the foundation upon which social, economic, and environmental sustainability stands. Biodiversity loss poses a direct threat to sustainable development goals, as it undermines ecosystem stability and resilience, exacerbating vulnerabilities to environmental, social, and economic shocks. Moreover, this paper discusses the potential synergies between biodiversity conservation and sustainable development, highlighting the role of innovative and inclusive approaches. It emphasizes the importance of integrating biodiversity considerations into development planning, policymaking, and business practices to achieve a more balanced and resilient global society. The paper concludes with suggestions from the author in underscoring the urgency of adopting a holistic and integrated approach to address the challenges of sustainable development and biodiversity conservation. It calls for collaborative efforts across sectors and disciplines, recognizing the interdependence of human well-being and the health of ecosystems. Ultimately, the paper advocates for a paradigm shift towards a sustainable future where the preservation and restoration of biodiversity are integral components of a well-rounded and resilient development agenda.

“The natural resources of the earth, including the air, water, lands, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate.”¹

Introduction

Development is the basic instinct of human beings; every person of the world wants development and at the same time they also want to secure the futures of their own and their dear ones. But lifestyle of these days has made an adverse effect on the environment of the persons, because of their ease they are exploiting the natural resources in such ways that these resources are likely to disappear from the earth. This problem was realized beforehand by the international community so they were looking for such a concept through which some efforts can be made to protect and preserve the environment for present as well as for future generations. This method for preservation and conservation of the environment for present and for future generations is known as Sustainable Development. Though the concept of sustainable development has an ancient origin, but it was much more emphasized during the “Earth Summit” of 1992 which was held in Rio de Janeiro, city of Brazil. This Earth Summit of 1992 is also known for its significance in the field of the conservation of biodiversity as it made a way to the Convention on Biodiversity. This **Convention of Biodiversity** has defined the term ‘**Biological Diversity**’ in its **Article 2** which states that Biological Diversity means variability among living organism from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. Thus, this definition covers all kinds of ecosystems. So, we can say that the international community was planning for the conservation of Biodiversity of all ecosystems and this thing gets more clarification when we go through the objectives of the various international conventions and the purpose they are serving for the conservation of the environmental diversity with respect to biological resources. In this assignment we will be dealing with the development of the concept of Sustainable Development and concept of conservation of Biological Diversity at international level and further the approach of the Indian Judiciary for Sustainable Development and the practicality of this in the Indian context.

¹ Sustainable Development is nowhere defined in exact words, so these lines are taken from Principle 2 of The Stockholm Declaration, 1972 which is the closest provision to the concept of Sustainable Development.

Evolution of the Sustainable Development as a Concept

There are so many conventions in which the international community came up to deal with the concept of Sustainable Development. Sustainable Development basically deals with both economic as well as the ecological sustainability but when we deal with it under the environmental law, we deal with ecological sustainability more than the economic sustainability, but we cannot skip it completely because environment has an economic value as well. Basically, the idea for the benefit of future generations and present generations should be modest in their exploitation of natural resources has found an international support since the “**Maltese Proposal**” at the United Nations General Assembly of 1967 although this was not titled as “Sustainable Development”, it was only the **Cocoyoc Declaration** of 1974 which uses the term “Sustainable Development” for the first time.² This declaration was a document which was published after the conference of experts of various countries in Cocoyoc town of Mexico. These experts came together for discussion on the issues relating to “the use of resources, environment and the development strategies”, basically, this Cocoyoc declaration was a result of discussions during the Stockholm Conference of 1972. But officially the term „Sustainable Development“ was used in **World Conservation Strategy** of 1980 which was prepared by The World Conservation Union with UNEP (United Nations Environment Programme), WWF (Worldwide Fund for Nature). Some of the most important conventions which emphasized on the concept of Sustainable Development are:-

The United Nations Conference on the Human Environment, 1972

The United Nations Conference on the Human Environment, popularly known as Stockholm Conference was held in 1972 in Sweden. The outcome of this conference was a document which is known as the „Stockholm Declaration“, this declaration was consisted of 26 Principles. This Declaration dealt with safeguarding of the natural resources for present and future generations through careful planning and management under **Principle 2**. Further, **Principle 3** of the declaration stated that the capacity of the earth to produce vital renewable resources must be maintained and, wherever practicable, restored. **Principle 11** talked about the responsibility of states to prepare policies in such a way that they’ll not affect the development potential of developing countries at present and in future as well and all states should come to some agreement to deal with the economic consequences based on the application of environmental measures. **Principle 13** talks about the management of development planning of states in a co- ordinate manner for the benefit of human environment according to their population. **Principle 22** of the declaration again provides for an obligation of states to co-operate and develop some international law regarding liability and compensation for the victims of pollution and environmental damage irrespective of their jurisdictions.

But the most important provision in Sustainable Development aspect was **Principle 5** of the Stockholm Declaration which provided that exploitation of non-renewable

² Michael Redclift, *Sustainable Development- Exploring the Contradictions* 32 (Methuen & Co. Ltd., New York, 1987).

natural resources should be such that these can be preserved against the future exhaustion and benefit of exploitation of these should be shared by all mankind. So, with these principles, laid down in Stockholm Declaration, it is evident that this Conference was first conference which took Sustainable Development as an important factor for the long run of human development and Human Environment.

World Commission on Environment and Development Report, 1987

The Commission on Environment and Development is popularly known as The Brundtland Commission in its report over “Our Common Future” in 1987 brings the term Sustainable Development in the common use. This commission was appointed by the UN General Assembly in 1983. This commission has defined the term sustainable development as, “*a development that meets the needs of the present without compromising the ability of the future generations to meet their own needs.*”³ The report has explained this concept in two ways in which one was focused on the needs of indigents, and it also made it clear that a priority should be given to the issues of such persons. And the second one was focused on the imposition of some limitations over technology and organizations by taking into account the ability of environment to meet the needs of present and future generations. This report has emphasized the relationship between economics and sustainable development as overlapping circles and stated that this economic sustainability⁴ and ecological sustainability should be the basis of every national strategy. Along with these things this Brundtland Commission Report has developed the World Ethics of Sustainability too. So, this Brundtland Commission Report of 1987 was the first report which had a focus on Sustainable Development as a term of common use and the first of its kind because it established a relationship between economics and Sustainable Development.

The United Nations Conference on Environment and Development (UNCED),1992⁵

The Rio Declaration consisted of 27 Principles which were focused on the behavior of nations towards more environmentally sustainable patterns of development. **Principle 1** of the declaration stated that human beings are the main concern for sustainable development, and they deserve a healthy and productive life with a harmony with the nature. **Principle 2** of the declaration has imposed a duty on the states for preparing their policies in such a way that their sovereign rights of exploiting the environmental resources should not cause any damage to the environment in their areas of jurisdictions as well as the areas beyond their jurisdictions. **Principle 3** of the declaration was directly focused on Sustainable development as it stated that the right of development should equitably meet the environmental needs of the present and the

³ The World Commission on Environment and Development, Report on “Our Common Future” (1987).

⁴ Economic sustainability is the way through which human must manage an economy to preserve its productiveness.

⁵ The UNCED was held in the year 1992 in Rio De Janeiro, Brazil. The outcomes of this Conference were the **Rio Declaration, Agenda 21, Convention on Climate Change and The Convention on Biodiversity**. UNCED is popularly known as **The Earth Summit**.

future generations simultaneously. **Principle 4** stated that environmental protection should be an integral part of the development and it should not be considered in isolation. **Principle 5** stated that the people and states should co-operate in a manner through which poverty can be extinguished and the standards of living can be raised for the majority of the people. **Principle 8** stated that states should reduce the unsustainable patterns of production and consumption to achieve sustainable development and it should promote policies based on demography. **Principle 12** stated that the states should co-operate to promote an international economic system which should be open to all, and which would lead to the growth of economy and the sustainable development in all countries for addressing the problem of environmental degradation. And further this principle emphasized international consensus to deal with the environmental measures for the reduction of the transboundary environmental problems. **Principle 21** stated that the ideas, creativity and courage of youths should be used to increase the global partnership in order to achieve sustainable development and for ensuring a better future for all. **Principle 24** stated that states should respect the international laws which provides for the environmental protection, and it should be taken care of during the times of the armed conflicts and other than this, states should co-operate in further development of the environment related international laws. Along with these Principles this declaration has emphasized on some other concepts which later on recognized as integral parts of the concept of Sustainable Development such as Precautionary Principle under **Principle 15** and Environmental impact assessment under **Principle 17**. After going through the provisions of The Rio Declaration on Environment and Development one can easily find that this declaration has emphasized on the global development of the concept of “Sustainable Development” specifically. The **Agenda 21** was adopted as a voluntary action plan at this Conference itself. The Agenda 21 was a dynamic programme for the 21st Century which provided a docket for action at local, regional and global level. UNCED Secretary Mr. Maurice said about Agenda 21, “*it is the most comprehensive, most far reaching and most effective programme for international actions ever sanctioned by the international community*”. Basically Agenda 21 was focused on the co-operation of the states in order to achieve the goal of sustainable development. The Agenda 21 was divided into four sections dealing with Social and Economic Dimensions, Conservation and Management of Resources for Development, Strengthening the Role of the Major Groups and lastly The Means of Implementation; respectively. Agenda 21 has also played a measure role in the implementation of the concept of Sustainable Development by establishing a commission known as **The United Nations Commission on Sustainable Development**⁶ under its **Chapter 38**. Further the Rio Conference has dealt with the issues of Climate Change in form of **Convention on Climate Change** which imposes a requisite duty on the states to take steps for reduction of the emission of gases which are creating the condition of Global Warming. The other Convention which was a part of the UNCED was **The Convention on Biological Diversity** which is discussed later in this article.

⁶ Commission was set up on 16th February 1993 as a Commission of the Economic and Social Council according to Article 68 of the United Nations Charter.

World Summit on Sustainable Development (WSSD), 2002⁷

The Summit was held in Johannesburg, South Africa to take a stock of implementation of Agenda 21. However, it was unable to fulfill the expectation of supplying fruitful results with regard to the implementation of Agenda 21. But it got some achievements regarding the protection of fair and equitable sharing of benefit within the framework of the UNCBD. This summit has got popularity because it has played a vital role in giving priority to poverty eradication and in removal of unsustainable patterns of consumption in order to achieve sustainable development at the global level. Another achievement of this summit was that it led to an agreement to halve the proportion of people without access to sanitation and safe drinking water and restore fish stock levels by 2015, reduce the loss of biological diversity by 2010, sound management of chemicals injurious to human health and environment with a view to minimize risk by 2020. Further this Summit has played a role in bringing advanced, cleaner and more efficient affordable and cost-effective technology. Thus, this summit has played an important role in the implementation of Sustainable Development although it was unable to achieve regarding some of its expected consequences.

The concept of Sustainable Development was developed in a systematic pattern through various international conferences, declaration and it was taken as an important factor by various committees appointed by the United Nations on various occasions. The Concept of Sustainable Development has some important principles (**Inter-Generational Equity, Use and Conservation of Natural Resources, Environmental Protection, The Precautionary Principles, The Polluter Pays Principle, Obligation to Assist and Cooperate, Eradication of Poverty, Financial Assistance to the Developing Countries**)⁸ under its sphere and these principles were evolved through some express provisions which were later on interpreted as parts of Sustainable Development.

When we hear the term Biological Diversity, our mind produces some images of various species and animals existing in some specific geographical locations in the world. The definition of the term Biological Diversity was given in **Article 2** of the **United Nations Convention on Biological Diversity (UNCBD)** which defines "*Biological Diversity*" means variability among living organism from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. This definition clarifies that Biological Diversity is variability of living organism in different kind of ecosystem. Today we humans are considering everything provided by nature is for our benefit and these (natural resources) are meant for our exploitation, but this is not a good thing as some of such natural resources are very rare and they are almost impossible to reproduce with technology. So there exists a responsibility to use such resources in a manner in which these can be preserved for the use of future generations. Many international bodies and communities have sought a solution through which this preservation of natural

⁷ The Summit was held from 26th August to 4th September, 2002.

⁸ Dr. J.J.R. Upadhyaya, *Environmental Law* (Central Law Agency, Allahabad, 3rd edn, 2012)

resources can be done, and that solution is sustainable use of these biological resources.

Though a number of efforts were made by international communities in the past but when these efforts were not fruitful enough as these were expected, the United Nations came up with Convention on Biological Diversity in 1992. This Convention was probably the first of its kind as it made a way for the preservation and conservation of Biological Resources in a sustainable manner. Before this UNCBD we can see there were various conventions, treaties and declarations which dealt with provisions for preservation and conservation of some specific kind of species like **Antarctic Treaty** of 1959, **Ramsar Convention on Wetlands** of 1971, **United Nations Education, Social and Cultural Organization's Convention** of 1972, **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)** of 1973 and **Berne Convention on Conservation of Migratory Species** of 1979 and many more were made and implemented but they were there to deal with some specific kind of species and some specific kind of ecosystems thus they were not effective to preserve and conserve the Biological Diversity as a whole. This problem forced the international community to adopt some measures for the protection of Biological Diversity throughout the world and to share benefits of the exploitation of natural resources among the people and their special communities.

This issue was considered by the United Nations, and it organized the unity of nations in regard to this problem in form of a Convention during the **Earth Summit** of 1992 they came up with **Convention on Biological Diversity**. During the Earth Summit the then UN Secretary General **Mr. Boutros Ghali**, in opening address to the UN General Assembly has said that "this summit has marked an important milestone in awakening the world to the need for development process that does not jeopardies future generations."⁹ It means that he was quiet clear about the impact of the Rio Summit for the preservation and conservation of Biological Diversity in a sustainable manner. **Kofi Annan** has said that use of biodiversity in an unsustainable manner would result into degrading environment. According to him Sustainable Development is the integration of Social, Economic and Environmental Development. And this should be operated at National, Regional and Local levels.

Agenda 21 and Biodiversity

Agenda-21 which was an outcome of the Rio Conference was basically an action plan which is to be operated during the 21st Century and its application was forced by UN at world level. Section II of the Agenda-21 provides that Biodiversity and its components should be conserved and should be used in a sustainable manner. Agenda-21 further emphasized the importance of the UNCBD and it held that all states should bear a responsibility to support the UNCBD.

The United Nations Convention on Biological Diversity (UNCBD) and Sustainable Development

Biological Diversity is an important factor in the principle of Sustainable Development

⁹ *Ibid.*

as it basically deals with the natural resources which are the basic requirement of ecological sustainable development. *Biodiversity is considered to be the life insurance of the principle of Sustainable Development.* It is so because natural resources are the most important things as if they exhaust once, they cannot be restored by human efforts. This thing was very well considered by the world community in UNCBD. Further, UNCBD explained Biological Diversity as a common concern of mankind and also stated that conservation of Biological Diversity is an integral part of the development process. Furthermore, UNCBD has some specific provisions to prove that there exists a strong relationship between Principle of Sustainable Development and Biological Diversity.

Article 1 of UNCBD deals with the *Objectives* of this convention and it provides for three objectives which are *Conservation of Biological Diversity, Sustainable use of the Components of the Biological Diversity* and lastly *the fair and equitable sharing of the appropriate access to genetic resources and by appropriate transfer of relevant technologies and by appropriate funding.* The term *Biological Diversity* is defined in **Article 2 Para 1**¹⁰ and the same definition of the term has been incorporated in **Section 2(b)** of the Biological Diversity Act, 2002. While **Article 2 Para 15** defines the term *Sustainable Use*¹¹ and again the same definition has been incorporated in **Section 2(o)** of the Biological Diversity Act, 2002.

Article 6 of UNCBD deals with the *General Measures for Conservation and Sustainable Use* of biological diversity. This Article imposes two duties on the contracting States of the convention. These Duties are subjected to the conditions and the capabilities of the contracting states. These are:

- (a) To develop national strategies, plans and programs for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans and programs which shall reflect, *inter alia*, the measures set out in this convention relevant to the Contracting Party concerned; and
- (b) To integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programs, and policies.

Thus, it is evident with this Article that the contracting Parties to this Convention are under an obligation to plan their national strategies in such a way that they ensure the conservation of biological diversity as well as the sustainable use of the components of biological diversity and States should also ensure the compliance of their strategies with UNCBD.

Principle 10 of UNCBD deals with *Sustainable Use of Components of Biological Diversity.* This Article explains five ways in clauses (a) to (e) through which this Sustainable Use can be ensured by the Contracting Parties as far as possible and as appropriate to them. These five ways are:

¹⁰ **Article 2 Para1-** “Biological Diversity” means variability among living organism all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and ecological complexes of which they are part; this includes diversity within species, and of ecosystems.

¹¹ **Article 2 Para 15-** “Sustainable Use” means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

- (a) Integrate consideration of the conservation and sustainable use of biological resources into national decision-making.
- (b) Adopt measures relating to the use of biological resources to avoid to minimize adverse impacts on biological diversity.
- (c) Protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.
- (d) Support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced; and
- (e) Encourage co-operation between its governmental authorities and its private sector in developing methods for sustainable use of biological resources.

Thus, according to this Article, the States should promote the process of conservation of biological diversity and sustainable use of natural resources by implementing provisions which involves the decision-making process and the assessment of the possible effect on biological diversity and these provisions should ensure the enhancement of local population and customary practices along with their promotion. And this Article also imposes a duty on the States to ensure co-operation of the government bodies with the private bodies.

Along with these provisions the UNCBD has established a committee to check the compliance of the UNCBD provisions in national strategies. This Committee is known as **the Committee on Sustainable Development** which works under the Economic and Social Council of United Nations (ECOSOC). This committee was empowered to acquire annual reports from the member States and on the basis of which it organizes a meeting in which it discusses the methods through which protection of Forests and Biological Diversity can be ensured and after such discussion this Committee was empowered to issue directions through publication. This Committee has now been replaced by **the High-level Political Forum on Sustainable Development (HLPF)** on 24th September 2013.

Thus, on the basis of these things we can say that UNCBD has played a vital role in ensuring the Sustainable use of natural resources which are essential part of the principle of Sustainable Development.

Hurdles in the way of Sustainable Development in India

In India we have more than thousand legislations which are in force at present but how many of those are in the knowledge of ordinary public? If we see, we'll find that common people are rarely aware of their fundamental rights even so in this situation if we expect people to raise their voice against the environmental degradation, we are doing nothing but making a mockery of environmental rights and the citizens too. So, lack of knowledge is the biggest hurdle in the way of implementation of the

Sustainable Development because people know that environmental degradation is going on around them, but they don't know how to react over it they aren't aware of the remedies provided to them under law.

Further, the cutthroat competition in Industries is also a hurdle for sustainable development somewhere. Because Industries are harming the environment though there are principles like Precautionary Principle and Polluter Pays Principles but for the execution of these one has to move to the court and when one is not aware of his rights, how will he go to the court. And the bodies which are capable of taking action against such industries, they are already getting their unfair share of such activities so why would they take any *suo moto* actions. So, Industrial development and corruption are two big hurdles in the way of Sustainable Development.

Furthermore, the policies of governments are not capable enough to deal with loss of biological resources because governments provide fund for their policies only to an extent to which it thinks appropriate, rest things are in the hands of local authorities which are indulge in corrupt practices most of the times. So, lack of proper government planning and political thinking in policy making is another hurdle in the way of Sustainable Development.

Conclusions and Suggestions

In my concluding remark of this article, I would say that, though the concept of Sustainable Development was evolved for the benefit of the future generations with a parallel process of development for the present generation, but it is vanishing nowadays just because of the unsustainable pattern of development. The loss of Biological Diversity is a thing which we can see around us the increasing temperature, holes in ozone layer, melting of glaciers sudden changes in environment are examples of this. So, to deal with the issue I have following suggestions through which we can somewhere find a solution for the proper implementation of Sustainable Development and for the problem of environmental degradation:

1. There should be a **Development Mechanism** which may allow individuals and other interested organization in establishing the co-operation between environment and the development of industries so that the industrial development may not affect the environment and the rights of the peoples regarding life, health and environment.
2. There should be a **Development Fund** which is to be handled by the State Authorities and the persons appointed by the states for the purpose. And this fund is to be raised through Polluter Pays principles *i.e.*, the person who delivers any harm to environment will pay the costs of it and will help the state in the improvement of the environment.
3. Every human being must understand its responsibility to live in harmony with nature and must respect the peaceful coexistence of the harmonious relation with nature as they were in past times.
4. All human beings must understand that the destruction of any forest, lake,

river, animal and birds will invite the downfall of the others too.

5. The states, through their laws must focus on the principle that ***“the quality of the environment depends upon the values that we practice and how we organize our societies.”***
6. There should be proper forums at local levels to take cases on *suo moto* basis and they should act in accordance with the Public Trust Doctrine which will increase their responsibilities and transparency in their functioning.
7. Lastly there should be some publications of rights and liabilities of individuals and corporations so that they can understand their responsibility towards a greener tomorrow and for happy future generations.

Besides these suggestions there is a thing which everyone must keep in their mind that whenever any conflicts arise people starts crying about their rights, but the same people remain silent when it comes over them as a duty. For an *example* In India, we can see that when anyone is trialed for an Environmental issue he claims for his rights of life, survival, and profession but at the same times he forgets to realize his own Duty which is imposed on him by virtue of ***Article 51A(g)***. So, people should understand one of the truths¹² about them as they were explained in the Stockholm Declaration on Human Environment that is, ***Man is both creator and moulder of his Environment.***

¹² The Stockholm Declaration on Human Environment starts with 7 quotes which are often referred as “7 Truths about Man”.