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BIODIVERSITY LOSS AS A MENACE FOR HUMANITY

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Abstract

The most unusual attribute of the world is the essence of life, and its beauty is the most extraordinary characteristic of creation. Around 9 million species of plants, insects, protests and fungi populate the World. Seven billion people do it, too. Two decades ago, at the First Earth Summit, every majority of the nations of the world declared that human activities were destroying the ecosystems of the Earth, removing at an alarming rate genes, species and biological characteristics. This hypothesis led to the question of how this loss of biological diversity would alter the functioning of the environment and its capacity to provide society with the goods and services needed for prosperity. Remarkable progress has been made over the past 20 years to understand how biodiversity loss impacts the functioning of the environment and thereby affects society. Soon after the 1992 Rio de Janeiro Earth Summit, there was a substantial increase in interest in recognizing how biodiversity loss could affect ecosystem dynamics, but also the functioning of ecosystems, and the provision of goods and services.

Keywords: *Biodiversity, Climate change, Sustainable development goals, humanity, Ecology, Environment.*

I. INTRODUCTION

During the 1980s, concern about both the rate by which species were disappearing from habitats led to work showing that organisms can affect habitat physical structure (ecosystem engineering), biogeochemical cycle fluxes of elements (such as ecological stoichiometry), including ecosystem productivity (such as trophic cascades and keystone species). Such work indicates that the loss of some types of life may dramatically alter the structure and functioning of entire ecosystems. By the 1990s, numerous international efforts centered on the more complex question of how habitats are influenced by the diversity of life forms. The

Scientific Committee on Environmental Problems (SCOPE) produced an important book reviewing the state of awareness about the biodiversity and ecosystems Functioning (BEF).
The Global Biodiversity Assessment was undertaken by the United Nations Environment Program to analyse the state of biodiversity understanding, including its role in ecosystem and landscape processes. Based on early studies of the effects of biodiversity on ecosystem processes, DIVERSITAS, the international biodiversity science initiative, has created a global research agenda [1]. How much do we need to keep people in good health and safe? The question is often posed by those who work in risk management. Practitioners in various flood-protection industries calculate risk as a result of the impact of an incident on health care and the probability of its occurrence. Although these projections are often unpredictable, policymakers inevitably have to make spending decisions aimed at avoiding these threats, as the cost to society of inaction can be large [2].
Work represents a crucial stage in our ability to quantify biodiversity loss. It still needs more practise, however. For example, to estimate changes in local biodiversity, the authors used statistical models to minimise changes in land cover and to infer the proportion of non-native organisms. To reduce uncertainty in these models, particularly in data-sparse countries, further data collection is necessary. However, the most pressing awareness gap now is changing from monitoring changes in biodiversity to recognizing their impact on the health and well-being of people. There is an urgent need for quantitative assessments to prompt dedication to potentially expensive actions. For instance: The UK Government has only committed itself to action to combat climate change after the likely economic impacts have been measured through meticulous global temperature analysis economics as well as science [3].
However, reducing the ambiguity about the implications of loss of biodiversity to levels reached in other industries dealing with risk management might not be feasible. The challenge is to take decisions against this uncertainty while taking into account other social considerations, such as fairness risk spread across demographic groups and across generations [4] . In addition, some degree of natural resource exploitation, with unavoidable loss of biodiversity, may be key to raising the living conditions of the poorest people in the world. It is not easy to make choices in the face of the confusion. Telling just how much biodiversity loss is too much is a tricky issue. However, it can be certain we are committed to inaction with world of major human well-being costs[5].Fig. 1 illustrate a framework for the reducing the effect due to loss of bio diversity.

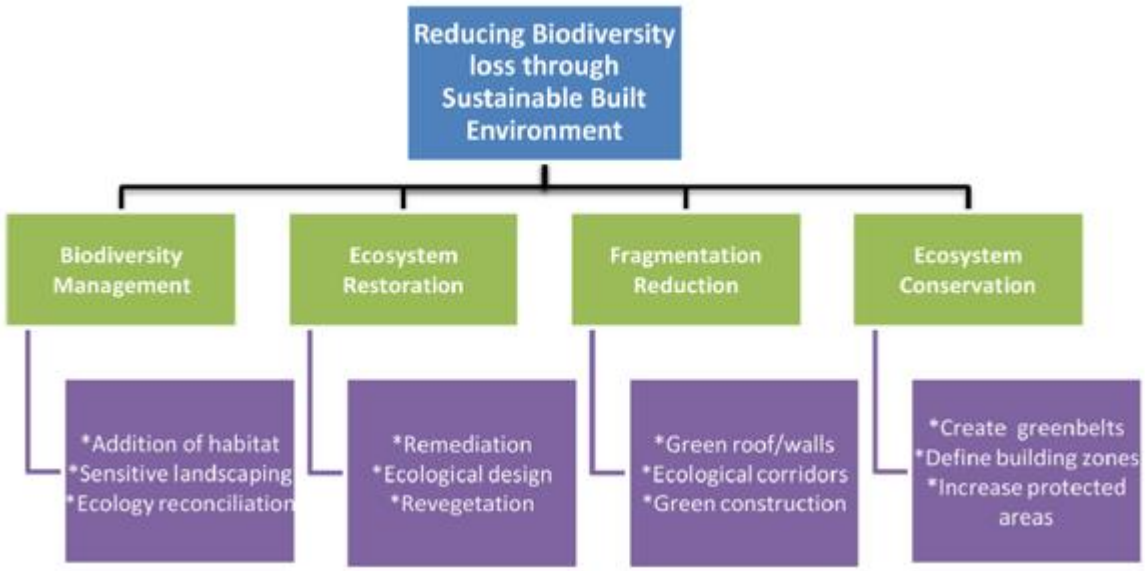

Fig. 1 Reducing Bio Divert Loss through Sustainable Build Environment

By the mid-1990s, BEF studies had exploited plant species richness in laboratory and field experimentation and indicated that functions of the ecosystem, such as biomass production as well as nutrient cycling, react strongly to changes in biodiversity. . The interpretation of these findings been initially controversial and by the late 1990s BEF researchers had been engaged in a debate on the validity of experimental designs [6], the mechanisms accountable for the effects of diversity as well as the relevance of results to non-experimental system. As the BEF field developed, a related research body began to form an agenda for research into biodiversity and ecosystem services (BES), based on the idea that ecosystems provide humanity with essential benefits [7].

II. STRATEGIES FOR MITIGATION THE EFFECT OF LOSS BIO DIVERSITY

BEF research has developed a significant body of mathematical theory in addition to experimental proliferation and expanded its range to include global trends in natural ecosystems as well. More than half of all the work has been published after the last consensus paper in world-class journals, and since then many deadlines have been crossed: the industry has coalesced around a series of core results and trends fostered by publishing quantitative data synthesis [8]. Many early scientific debates have subsided as evidence has accumulated to settle key controversies; new consensus has emerged on unresolved questions in the field and also how to tackle them. Such milestones include a rare opportunity to re-evaluate past results and recognize emerging trends. Before discussing the actual statement regarding the BEF and BES, there are some terms to be understood as follows:

(i) Biodiversity is life's variety including variation between genes, species and functional characteristics. It is often measured as: richness is a measure of the number of individual forms of life; evenness is a measure of equity between forms of life; and heterogeneity is the dissimilarity between forms of life.

(ii) Ecosystem functions are ecological processes which control through an environment the fluxes of energy, nutrients as well as organic matter. Examples include: primary processing, the process by which plants use sunlight to turn inorganic material into new biological tissue; released, and then recaptured; and decomposition, the process through which organic waste, such as dead plants and animals, is broken down and recycled [9].

(iii) Ecosystem resources are the collection of benefits ecosystems offer to mankind. It has been concentrate on two forms of ecosystem services-supply and regulate. Supply services involve the production of renewable resources (e.g., food, wood, fresh water). Services regulating are those which reduce environmental change [10].

Table. 1 Sustainable Development Goal

Sl. No.	Goals
1	No Poverty
2	Zero Hunger
3	Good Health and Well-being
4	Quality Education
5	Gender Equality
6	Clean Water and Sanitation
7	Affordable and Clean Energy
8	Decent Work and Economic Growth
9	Industry, Innovation, and Infrastructure
10	Reducing Inequality
11	Sustainable Cities and Communities
12	Responsible Consumption and Production
13	Climate Action
14	Life Below Water
15	Life On Land
16	Peace, Justice, and Strong Institutions
17	Partnerships for the Goals

III. CONCLUSION

Twenty years ago, with the formation of the Convention on Biological Diversity, the importance of biodiversity for human well-being was recognized by an intergovernmental agreement between 193 countries to promote the protection of biological diversity, the sustainable use of its components, and the equal and equitable sharing of benefits. Data collected in 2010 showed that biodiversity losses occurred on a global scale and at increasing levels, despite this agreement. This discovery prompted a collection of new goals for 2020 (the Aichi goals) and, in addition, governments were discussing the creation of a national assessment body, the Intergovernmental Biodiversity and Ecosystem Services Framework for Science and Politics (IPBES). The IPBES will be responsible for conducting regional, global and thematic assessments of biodiversity and ecosystem services, and will rely on the international scientific community to assess trends and assess risks associated with alternative development strategies and land use changes.

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