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## A Review Article on-Loss of Biodiversity

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## ABSTRACT

This article is given concise observation of recent loss of biodiversity in India. By reviewing the present status of biodiversity in India, areas which need serious information can be enumerated. There is a necessary need to monitor loss of biodiversity by analyzing the conditions which lead to deletion of species. This article attempted to focus on the reasons which lead to loss of biodiversity in India, in using this information to provide acceptable solutions for effective conservation. In the India, loss of biodiversity is classifying the data in to separate categories and an overall picture for Indian biodiversity scenario provides information in this article. A number of birds, animals and plants are included in the review. Biodiversity role is very important to regulate the climate. The safe-keeping of biodiversity will leads to improve the strength of ecosystem and ecosystem ability to provide significant services during raises the pressure of climate. This review is focuses on the significance of biodiversity and results faced by the flora, fauna, humans, and the ecosystem owing to the climate change, possible strategies and global warming due to the biodiversity effect. In India the conservation strategies are adopted so far, which have been discussed at the end point of loss of biodiversity in India.

KEY WORDS: Biodiversity, Indian species, Climate change, Loss of Biodiversity

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### **INTRODUCTION**

The Wildlife scientist and conservationist Raymond F. Dasmann was firstly used the term of Biological diversity in 1968 conservation book." The total variability of earth" this definition of biodiversity is defined by the Wilson [Wilson et al., 1992]. In these systems it is define as "Number of species". In natural conditions the populations whose member is freely interbreed [M.N.V. Anil et al., 2014]. The number of species present at place they have special attention and focused on biodiversity study. The special limits of biodiversity are defining different groups:  $\alpha$  (alpha),  $\beta$  (beta),  $\Upsilon$  (gamma) [M.N.V. Anil et al., 2014]. These classification is depends on the basis on richness of local species: -  $\alpha$  diversity; on the location number of species present, the regional species pool: -  $\Upsilon$ diversity; Number of other species that could be at a venue and variation between localities: -  $\beta$ diversity [Thompson et al., 2007]. The world biodiversity has a total of 1,263,500 species of plants and animals while India has only 51,828 species [B.D. Oza et al., 2009]. Climate always changes resulting in evolutionary changes in the species [ArpanaRathore et al., 2013]. In this paper first section deals with loss of biodiversity in India and next conservation strategies .Biodiversity is important in following ways: (1) Soil formation (2) Maintain air quality (3) Water quality (4) Pest control (5) Detoxification and Decomposition of waste (6) Crop production (7) Climate stabilization (8) Prevention and Mitigation of natural disasters (9) Provision of food security [Anonymous et al., 2009]. India is a treasure chest of biodiversity which hosts a large variety of plants and animals. India accounts for 8% of the total global biodiversity with an estimated 49,000 species of plants of which 4900 are endemic [M.N.V. Anil et al., 2014]. Today we seem to be losing two to five species per hour from tropical forests alone. Indian biodiversity: The ecosystem of Himalaya hills of north eastern India and Western Ghats contain nearly 90% of the countries higher plants species and special importance to traditional medicines. The faunal diversity comprises 2,500 fishes, 150 amphibians, 450 reptiles, 1200 birds, 850 mammals and 68,000 insects [M.N.V. Anil et al., 2014]. Although India is designated as a mega biodiversity area, it has also two world's most threatened 'HOT SPOTS', the Eastern Himalayas and Western Ghats [Kumar et al., 2000].

#### Loss of biodiversity in India

M.N.V. Anil, Kanchankumari and S.R. Wate (2014) studied that twenty five biodiversity hot spots have been identified worldwide as areas of the biosphere. Two hot spot biodiversity present in India. They are in Eastern Himalaya hill and Western Ghats. I am studied that, in India 2 major hotspot diversity is present and the threats are not important to distribute. In (2000) IUCN reported that the total number of species of mammals is present in each country. With the current situation of deforestation they are decade. Only 10% of the land area is cover by the dense forests in Himalaya. In Himalaya, the forests and animals are highly threated. 40% of wetlands are loss by as. According

to the authors studies the endangered floral species are: *-JatrophaCurcas, TerminaliaChebula, Rimelia, ArunachalHopea Tree, SapriaHimalayan* and etc. The bird species are *Western Tragopan, Himalayan Snow Cock, Golden Eagle, Steppe Eagle,* and *Black Eagle and Vulture*[Krishnamurthy et al., 2003].

The AparnaRathore and yogeshjasrai (2013) shows that the climate change [Anonymous et al., 2009]. I am studied the effect of climate change on humans and biodiversity [D.M. Gates et al., 1990]. Both natural and man-made sources are affected by the climate change [ArpanaRathore et al., 2013]. The vegetation changes are: - crop production, pest attacks, forest fires, species richness is decreases. Also affected on animals, ecosystem, and humans [Davis et al., 1987]

J.s. Singh Studies the biodiversity crisis, including on human health and biodiversity [Ghimire et al., 1997]. Contribution of biodiversity on human health:-(1) One out of every 125 plant species studied at the herb research foundation, Boulder produced a major drug with value in the US of at least 200millian per year [Bruner et al., 2001]. (2) Of the 118 prescription drugs in the US, 74% are based on plants, 18% on fungi, 5% on bacteria and 3% on vertebrates [Lleras et al., 1991]. (3) 80% of the world's population relies on traditional plant medicines [Reid et al., 1998]. These studies indicate the composition and quantity of biodiversity and ecosystem functions and ecosystem stability [J.S. Singh et al., 2002].

According to the E.Somanathan studies India has considerable biodiversity that is under threat [E. Somanathan et al., 2005]. I am studied this article and said that the areas of the habitat and habitat quality is leads to species extinction, in case of hunting mammals. By the other activities which are rises the habitat quality they are: - Forest conservation, grassland agriculture, and grazing and woodcutting activities. Examples are: *-Peruvian ThornyTree* in the dry parts of northern India where it native species such as Acacia *Nilotica (Babool)*.Loss of biodiversity may adversely impact agriculture, human-health, and changes in hydrology. For the conservation of biodiversity in India drive policies. Wildlife Protection act 1972, Forest conservation act 1980, Forest act 1878, other wild areas "Reserved", "protected", "national parks" and natural recourses [Kumar et al., 2000].

Many authors are studied on the biodiversity and shows that, diversity is a most extraordinary feature of life on earth. I am studied that approximately 9 million types of species present on earth like, plants, animal, insects, fungi, etc. According to the first earth summit, world's nations declared that human's actions are dismantling the ecosystem.(Bradley Cardinale, Emmett Duffy, Andrew Gonzalez, David Hooper, Charles Perrings, James Grace) [B.D. Oza et al., 2009].

Consequences of changing biodiversity studies by the Stuart Chapin, Erika Zavaleta, Sandra Lavorel and Sandra Diaz [Bradley J. et al., 2012] six major extinction eventsare caused by the widespread changes of the global distribution and global environment. This consequence for the humans derives from ecosystems [Loreau et al., 2002].

## CONCLUSION

The loss of biodiversity is very serious problem of environment. Rich biodiversity are the power of nature. Biodiversity is very important for survive humans and animals. For the conservation of biodiversity arrange the awareness programs. The awareness of diversity and high rate of loss is rapidly assessed. For the conservation of biodiversity people takes participated in awareness programs. The NGO'S and consultancy are work on it. India has a rich trend to conservation strategies. Social forces need to be motivated to promote ecology and diversity. Due to the greenhouse gases climate change occurred. Any small change of climate is lead to extinction of species. Climate change increasing the rate of natural phenomena which are forest fire, flood, tsunami, and tornado occurs. Mr. Anil and Kanchankumari shows that total number of plant species is 49000and endemic species are 4900.aparna rather and yogeshjasri shows the 47000species of plants are present. So, I am concluded that the total 49000 number of species present recently in eastern Himalaya of India. The medicines plants are also present in the eastern Himalaya hill and Western Ghats. The studies of KanchanKumari and S.R. Wate article they shows the total 7800 number of plant medicines are present. J.S. Singh studied 125 species of plant medicines. So I am concluded that in India major 125 medicine plant species are available [Wilson et al., 1992].

Species	Number in India
Plants	47000
Fishes	2546
Amphibians	197
Reptiles	447
Mammals	410
Birds	1228

#### REFERENCES

- 1. M.N.V. Anil, KanchanKumari and S.R. Wate, loss of biodiversity and conservation strategies: An outlook of Indian scenario, National environmental engineering research institute, Maharashtra, India.2014; 3(2):105-114.
- 2. Wilson, E.O. 1992. The Diversity of LifeCambridge MA: Belknap press, 1992; 13(1): 424.
- 3. Thompson, Ross, and Brian M. Starzomski., What does biodiversity actually do? A review for managers and policy makers Biodiversity and conservation, 2007; 16(5): 1359-1378.
- 4. ArpanaRathore and Yogesh...T.Jasrai, Biodiversity: Importance and Climate Change Impact, Department of Botany University School of Science, Ahmadabad. 2013; 3(3): 1-5.

- B.D. Oza, Designinga software for generating a database, retrieval and identification system and its efficacy evaluation for major tree forms of Gujarat. PhD thesis submitted to the M.S. University of Baroda, 2009; 40-53.
- J.S. Singh, Department Of Botany, Banaras Hindu University, Varanasi 221005, India.2002; 221-235.
- 7. E. Somanathan, R. Prabhakar and B.S. Mehta, Does Decentralization work? Forest conservation in Himalayas Delhi, Indian Statistical Institute, 2005; 1-39.
- 8. Bradley J. Cardinale, J. Emmett Duffy and David U. Hoper, Biodiversity loss and impact on humanity, USA 2012; 486(7401): 59-67.
- Kumar, Updesh and Mahendra J.A., Biodiversity conservation and Principles, 2000; 3(2): 105-114.
- Krishnamurthy, S.V., Amphibian Assemblages in undistributed and distributed areas of Kudremukha National Parks central Western Ghats India Environmental conservation, 2003; 30(03): 274-282.
- Anonymous Impact of Climate Change on the vegetation of Nainital and its surroundings. NBRI Newsletter, 2009; 36:25-31.
- 12. D.M. Gates Canada Climate Change and forest tree physiology, 1990; 7:1-5.
- 13. Davis, M.B., Invasions of forest communities during the Holocene: beech and hemlock in the great lack region, 1987; 4:373-393.
- 14. Kumar, A.S. Walker and S. Molur, Prioritization of Endangered Species Setting Biodiversity Conservation Priorities of India New Delhi, WWF-India, 2000; 5.
- 15. Ghimire, K. B. and Pimbert, M.P., Social Change and Conservation: Environmental Policies and Impacts of National Parks and Protected Areas, 1997; 15(8): 2765-2786.
- Bruner, A.G., Gullison, R.E., Rice, R.E. and da Fonseca, G. A. B., Science, 2001; 291(5501): 125-128.
- 17. Lleras, E., Diversity, 1991; 7: 78-81.
- 18. REID, W. V., TREE, 1998; 3(7): 275-286.
- 19. Loreau, M., Naeem, S. and Inchausti, P. Biodiversity and Ecosystem Functioning: Synthesis and Perspectives, 2002; 294.