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SIGNIFICANCE AND MAJOR THREATS TO FLORAL DIVERSITY

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ABSTRACT

Plant-diversity is under threat from human activities, habitat loss, fragmentation, degradation, overgrazing, pollution and population growth, over-exploitation of natural resources, invasive alien species and environmental degradation. Other important threats to biodiversityas like overharvesting of selected species, pollution, toxic discharges, habitat alteration, competition, narrow geographical area, disease and parasites, habitat acidification, modification homogenization of ecosystems, natural disasters, deforestation, and soil erosion are the important threats to biodiversity. Plant diversity provides essential goods for human welfare like as food, fibre, that's most important. Plant diversity and the many ecosystem services that it provides are a key factor determining human well-being. Plant diversity is losses has-direct and indirect negative effect on living organism. Over the next few decades, as monoculture yields continue to decelerate or decline for many crops, and as demand for ecosystem services continues to rise, diversification could become an essential tool for sustaining development and ecosystem services. Floral diversity provides us much essential welfare like food, fiber. Loss of variety of plants has direct and indirect result as negative impact on organisms. Over the next few decades, as monoculture yields continue to decelerate or decline for many crops, and as demand for ecosystem services continues to increasing, diversification can become an essential tool to sustaining growth and ecosystem services. The stress on floral-diversity is far beyond the levels imposed according to the natural global climate changes occurring in the recent evolutionary past. This includes increased temperature, shift of climatic zones, melting of snow and ice, rise in sea level, drought, floods and other extreme weather events increased invasions.

Keywords: *Floral Diversity, Threats, Overgrazing, Food and Climate.*

Introduction

The biodiversity is going loss due to human activities as result growing global concern. (Dirzo and Raven, 2003; Vitousek et al., 1997). Species have been disappearing from the earth very fast due to human activity (May et al., 1995) and it is likely that the current rate of species loss will increase by an order of magnitude over the next century. (Pimm et al., 1995). However the loss of flower diversity directly alerts the rest of the community by affecting its diversity, there has been considerable debate as to whether a decrease in the diversity of flowers will affect how terrestrial ecosystems function(Loreau et al., 2001). Plant diversity goes ensuring the availability of raw materials include food and fibre, security, social relations health, freedoms for human. Now time people have got benefited the conversion of ecosystem (natural and man-made) and other living organism suffered the impacts of species loss and other changes in clouding ozone depletion, acid deposition on forests and nutrient pollution.

Significance of Plant Diversity: Ecological Service

Plant diversity provides essential goods for human welfare, like food and fibre, that's most important. Many useful human well-being material have been provided by plant diversity and the many ecosystem.

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- **Food Security**: The plant species is like a "safety net" that provide us food security. Farming is also provides use of agricultural diversity, it can also provide food security.
- **Vulnerability**: Many communities have faced natural disasters over the past several decades as like buffers, floods and storms.
- **Health**: Plant diversity provides us variety of foods for a balanced diet to good health.
- **Energy Security**: Plant diversity provides us wood fuel the alternative and affordable energy sources for the resources to heat homes, cook food, and boil water.
- **Cleaning Air and Water:** floral diversity provides us clean drinking water by operating a water filtration plant and provides us pure air for breath by the Photosynthesis reaction.
- **Traditional Value:** Ethno-medicinal plants provide traditional remedies, food, fodder, fibre, goods for people.
- **Social Relations:** Many cultures like as spiritual, aesthetic, recreational and religious values have attach to ecosystem and their components.
- **Balance of Nature:** Maintains the nature by giving off moisture through their leaves and providing shade, plants help keeps us and other organism.
- **Biological Productivity:** Maintains the single organism, a population, or entire communities and ecosystems.
- **Degradation of Waste Material:** Detoxification and decomposition of waste.
- **Cycling of Nutrients:** Floral diversity provide us many nutrients that sustaining the elements and compounds.
- **Control of Potential Pest and Disease Causing Species:** Prevention to cultivated plants against to diseases, pests as well as competing weed and grasses.
- **Detoxification of Soil and Sediments:** Generation of soils and maintenance to soil quality. Maintains of soil fertility, nitrogen fixation, biogeochemical cycle, Hydrological cycle
- **Stabilization of and Against Erosion:** Plant diversity help to Prevention and mitigation of erosion.
- **Carbon Sequestration and global Climate Change:** Maintains the oxygen is supplied and co_2 is absorbs by plants.
- **Basic Materials**: Floral diversity provides us various goods - such as raw material and provide us the many type raw materials needed for the manufacturing of clothing, building materials, ornamental items and also including ecotourism, cosmetics, pharmaceuticals, personal-use goods.
- **Education and Research:** Plant diversity provides research value like as botanical garden, conserve area, natural habitat for research and education.

Threat of Loss to Floral Diversity

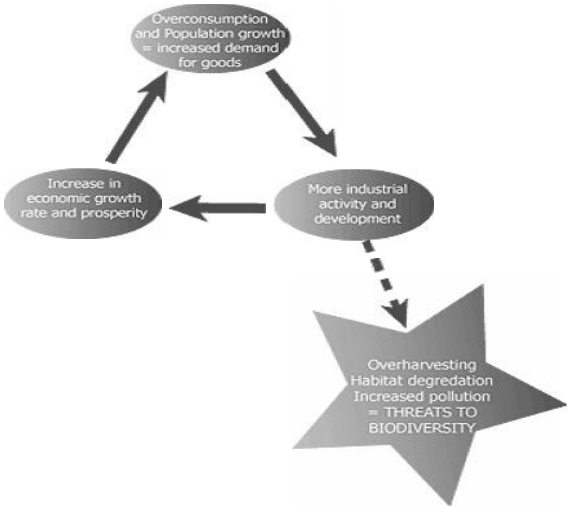

Fig.1 Threat of Biodiversity

Global Warming

Global warming should be limited to 2.0 ° C (3.6 ° F) relative to pre-industrial levels (Vaughan, 2015), with efforts to limit warming to 1.5 ° C (2.7 ° F). (Sutter et al., 2015). It is expected that most ecosystems are affecting by high atmospheric CO2 levels, combined with high global temperatures. (Schneider et al., 2007).Overall, it is expected that climate change has led to the extinction of many species and reduced floral diversity of ecosystems.

Climate Change and Plant

Recently rapidly climate change is already affecting a wide variety of biodiversity. (Edwards, and Richardson, 2004); (Parmesan, 1996). Although climatic factors such as climate variation, human-induced climate and atmospheric changes are the most plausible explanations (Hughes, 2000); (Parmesan, andYohe,2003)**.** Rapid climate Species 'left behind**'** as they are unable to change distribution fast enough. Species with long life cycles and slow dispersal are particularly vulnerable.

- Many plant communities act like 'sinks' (store carbon), which helps to offset carbon emissions. Some disjunction species are become particularly vulnerable.
- Genetic composition of plant may change in response to the selection pressure due to climate change.
- **Temperature Effects:** Change of Temperature can be important determinants of plant distribution.
- **Rainfall**: It can affect also determinant of plants: for example grasses become woody vegetation.

Overgrazing by Cattle's

Desertification is caused majorly by overgrazing and encroachment of forest lands which is managed poorly by traditional herding. Deforestation is a big problem of the loss of most vegetation's. Many factors are effective for deforestation such as tillage for agriculture, drought, climatic shifts, overgrazing, construction materials and deforestation for fuel (Geeson and Nichola et al., 2002).After habitat loss, overharvesting had the greatest effect on biodiversity.

Pollution

- **Toxic Discharges**: Toxic discharges is major problem to conserve area like- inorganic compound, organic chemicals, metals and suspended sediments usually found in industrial and municipal effluents that have been discharged directly into conserve area. Toxic discharges negatively effects the plant's species (living organisms) as well as ecosystem. Toxic discharges impacts by killing them, weakening them, or affecting their ability to carry out essential biological functions (feeding, reproducing, etc.).
- **Innovation by Exotic Species:** The most concern is phosphorus and nitrogen gas which often originate as run-off from fertilizers applied on agricultural fields. These nutrients, naturally present in very low concentrations, stimulate rapid growth of exotic plants, ultimately limiting the amount of oxygen and light available to other organisms in the ecosystem Biotic environments can be degraded by habitat alteration and presence of invasive species. Exotic species can often compete native species for food and habitat.
- **Narrow Geographical Area:** Geographic barriers help to maintain genetically diverse populations of organisms. The non-native species have in the interbreeding of native and non-native species, as result, with the consequent decline of native species. It means that hybridization was a major factor in species extinction.
- **Disease and Parasites**: Disease and parasites are also negative effect on native species.
- **Natural Disasters-**Earthquakes, landslides, volcanic eruptions and natural bush fires all affect the many different ecosystems on our Earth. These disasters negatively effect on the biodiversity of wetlands, forests and coastal systems due to the spread of exotic species, mass species mortality and loss of habitat.
- **Soil Erosion and Soil type:** Soil erosion is a big problem because natural vegetation has been removed from an area. Result had been the surface water or winds can carry away topsoil, the surface layer of soil that is rich in beneficial microorganisms and nutrients. Result had been the soil is washed away gets deposited in waterways, destroying fragile aquatic habitat, making an area unsuitable for growing for plants. Soil type or herbivore may be affected Plant
- **Aridification:** In the process by which a humid region becomes increasingly dry, as by climatic change or human interference with the environment.

Solution for This

Try to protect the remaining part of the natural habitat. We need to reduce the human population and urbanization and expansion of industries. We can include planting trees, planting orchards etc. in the solution of habitat loss. In order to conserve natural habitat, man has to control his requirements for agriculture, causing damage to natural habitat

Conclusion

We should try to save nature because it 'provides us with goods, service, food, clean water and a stable climate and protects the potential cause of climate warming and the increased ultraviolet radiation caused by stratospheric ozone loss. Nature provides us with essential goods for human welfare, such as food and fiber which are prime to mankind. Biodiversity loss is mainly related to human activities with natural resources. In the early stage of life, human remained as a component of the ecosystem, but, more recently, has become a factor of the human ecosystem and has become to re-shape biodiversity in many such ways.

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