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CONSERVATION OF PLANT BIODIVERSITY: PARTICIPATORY APPROACH

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ABSTRACT

India has a rich and varied heritage of biodiversity encompassing a wide spectrum of habitats from tropical rainforests to alpine vegetation and from temperate forests to coastal wetlands. Participatory Approach with the involvement of local people in conservation is found to be more effective these days. This includes a whole range of situation from one extreme in which official or private agencies predominantly retain control but consult with local communities in planning or implementation to other extreme in which communities are completely in control. It is abundantly clear from the experience of all government agencies that on their own they cannot efficiently conserve the biodiversity. Involvement of local people reduces the cost involved in conservation. Local communities have long tradition of resource use in particular area, hold in depth knowledge and experience of plant or wild life which can be invaluable for conservation efforts. All over the world it is being realized that, govt agencies simply not able to carry out the task of conservation being under staffed, under equipped and underfunded to handle the threats that habitat and species face.

INTRODUCTION

"Biodiversity" is the full complexity and variety of life, at all scales, from genetic diversity, up to species and even ecosystem diversity. So, we use the term "biodiversity conservation" to refer to attempts to conserve and any parts of this natural diversity (Rajkumar *et al.,* 2011). Plant diversity is a major plant of total biodiversity - just think of the richness of tropical rain forests - it forms the basis of all food webs, and underpins the functioning of all ecosystems. So, plant conservation is an essential component of efforts for biodiversity conservation. As plants are at risk of extinction, in all parts of the world, their conservation is a priority (Good and Leigh, 2001)

India's biodiversity: India with 10 biogeographic regions is one among the world's top 12 megadiversity countries. India alone includes two among the world's thirty five biodiversity hotspots (Rajkumar *et al.,* 2011). India has a rich and varied heritage of biodiversity, encompassing a wide spectrum of habitats from tropical rainforests to alpine vegetation and from temperate forests to coastal wetlands. India figured with two hotspots - the Western Ghats and the Eastern Himalayas - in an identification of 18 biodiversity hotspots carried out in the eighties (Myers. 1988). Of the estimated 5-50 million species of the world's biota, only 1.7 million have been described to date (Groombridge, and Jenkins. 2000), and the distribution is highly uneven. About seven per cent

of the world's total land area is home to half of the world's species, with the tropics alone accounting for 5 million. The Western Ghats in India is one of the most threatened biodiversity hotspots of the world. Among the 600 plant species considered to be rare or threatened in the flora of the peninsular India, about 90 per cent species are in the Western Ghats (www.mssrf.org/bd/consret.htm). More than 63 per cent of the plant species of low and medium elevation evergreen forests are endemic (Ramesh *et al*., 1991). Gowda *et al*. (2002) studied the habitats of Western Ghats and have revealed that, most of the eastern and western transition zones host a variety of RET species. India contributes significantly to this latitudinal biodiversity trend. With a mere 2.4% of the world's area, India accounts for 7.31% of the global faunal total with a faunal species count of 89,451 species (MoEF. 1999). India's record in agro-biodiversity is equally impressive. There are 167 crop species and wild relatives. India is considered to be the centre of origin of 30,000-50,000 varieties of rice, pigeon-pea, mango, turmeric, ginger, sugarcane, gooseberries etc. and ranks seventh in terms of contribution to world agriculture.

Process of extinction: Of the world's rich diversity of flowering plants, nearly one tenth are dangerously threatened or are on the verge of extinction When a plant species disappears, the existence of animal species dependent on it is seriously threatened. It is the part of the process of evolution. However, interference by human species has hastened this process (Balakrishna and Hareesh, 2002)

Strategies & Priorities: The primary goals of biodiversity conservation as envisaged in the World Conservation Strategy can be summarized as follows:

- Maintenance of essential ecological processes and life support systems on which human survival and economic activities depend.
- Preservation of species and genetic diversity and
- Sustainable use of species and ecosystems which support millions of rural communities as well as major industries.

Participatory Approach or community based conservation: This can be defined as consertvation of biological diversity based on the involvement of local people in decision making (Neema Pathak, 2013).

This excludes: Conservation attempts by official or private agencies which either have no Participation of local people or participation only in the form of labour.

This includes: A whole range of situation from one extreme in which official or private agencies predominantly retain control but consult with local communities in planning or implementation to other extreme in which communities are completely in control.

Why local people or local community?

It is abundantly clear from the experience of all Government agencies that on their own they cannot efficiently conserve the biodiversity because of following reasons.

- Government agencies tend to be rigid in application of rules
- Always lack in human, financial and technological resources
- Corruption among employees undermines conservation efforts

Involvement of local people:

- **Reduces the cost involved in conservation**: The cost involved may go down once community involved is in place, as community shares in responsibilities like patrolling, fire fighting and protective measures.
- **Long tradition of resource use**: Local communities have long tradition of resource use i particular area, hold in depth knowledge and experience of wild life which can be invaluable for conservation efforts.
- **Protest against degradation**: All over the world it is being realized that, govt agencies simply not able to carry out the task of conservation being under staffed, under equipped and underfunded to handle the threats that habitat and species face.

Chipko movement:

- In 1970, twenty villages of Garwal dist. Of UP were devastated by flash flood in Alakanand river. This flood occurred due to deforestation and was an eye opener for the villagers.
- They started protested against the tree felling under the leadership of Chandi Prasad Bhat. Whenever the forest contractors tried to cut the tree people protested by hugging the tree. This movement became very successful and it was popularized all over the world by Sundarlal Bahuguna.
- Chipko movement advocates slogan of planting five Fs - food, fodder, fuel, fiber and fertilizer trees to make communities self-sufficient in all their basic needs.

SACRED GROVES

Sacred groves are small or large patches of vegetation protected on the basis of cultural and traditional practices on the religious background.

Sl.no	Vernacular names	State
1	Dev bhumi	Uttarakhand
2	Oran	Rajasthan
3	Kovil kadu	Tamil nadu
4	Deo van	Himachal Pradesh
5	Devara kadu	Karnataka

(*Harish Singh *et. al., 2011)

CONCLUSION:

The idea of biodiversity conservation rests on several fundamental arguments including nostalgia and human benefits and needs. The innate desire we all have is our children to experience the great pleasure and curious excitation that biodiversity has given us. Moreover, we were not bequethed this earth and its biodiversity. We must return it to our future generation in the manner in which we have received.

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