

A Critical Study of Causes and Solutions of Biodiversity Crisis

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Abstract:

Western Ghats region of Maharashtra state is rich in plant and animal diversity. In accordance to traditional causes of loss of biodiversity, it throws light on wrong human activities. But exact and true attempts to avoid wildlife crisis demands the critical studies and new interpretations, so as to protect each and every forest individuals. Apart from the study of traditional causes written in the literatures, it is time to study the coordination among concerning govt. agencies such as, water supply department, road and traffic department and financial authorities and associated authorities. Day today loss of wild fauna in road accidents, and by diseases arise the questions, why and how reach the wildlife on highways and roads, why human localities indiscriminately using water bodies and contamination of water kills the fauna by diseases. In spite of new innovations the proper handling and interpretation of wildlife policy mater may solve the problems on some extent. Today the social education is not necessary for conservation of biodiversity because all the social individuals know about the importance of wild life, but it requires the awareness education in the society. It also needs to enhance the risk assessment education in concerned localities. Forest authorities employ the captive activity of wild life after injury or fatal attacks of animals on localities. It is possible to construct and maintain the intellectual team to study the risk assessment as a sustained activity so as to reduce the loss of animal diversity. Moreover the innovative ideas in use of ICT in conservation strategies may become helpful to protect wildlife. All the studies about wild life conservation and causes of reduction throws light on govt. policies and enforcement of it with sufficient provision of funds to concerning departments with constant monitoring of its utilization.

Keywords : Study, Wild life, conservation, policies, crisis

Introduction:

The main cause of the loss of biodiversity can be attributed to the influence of human beings on the world's ecosystem, In fact human beings have deeply altered the environment, and have modified the territory, exploiting the species directly, for example by fishing and hunting, changing the biogeochemical cycles and transferring species from one area to another of the Planet. In spite of traditional causes of the biodiversity crisis the following concerns are necessary to taken care for actual fulfillment of lacunas concerning with conservation of biodiversity. 1) Correct interpretation of Government policies by concern agencies. 2). Interpretation and enforcement of govt. acts concerning to wild life. 3). Insufficient man power to look after the care of wild life. M. Kasso and M. Balakrishnan (2013) has reviewed reasons and necessary practices of ex-situ conservation.

During the last century, changes in the territory consisted mainly of an increase in the surface area taken by agriculture and livestock farming, an increase in the urban areas, the development of road networks and the related infrastructures, the construction of hydroelectric plants and hydraulic plants, exploitation of underground deposits and fishing with more powerful boats and more efficient nets. Due to these changes, the natural environments are changed, destroyed and subdivided, which cause the loss, and division into small parts, of the habitats. The importance of the loss of the habitats is surely intuitive, while the concept of "fragmentation" is more difficult to understand. Fragmentation of the habitat is a division of the territory into various smaller areas that can remain, in some way connected to each other or may be totally isolated, J. Young et al, (2007).

The consequence of this leads to the subdivision of populations distributed in the particular area which are, therefore, less consistent than the original population. For this reason populations become more vulnerable to external stress, to climatic changes, to anthropoid disturbance, epidemics and genetic deterioration due to cross- breeding among the population that is "related". For example, it is calculated that every year many specimens of birds, mammals, reptiles, amphibians, are affected by car traffic. In particular, the species that are most affected by this problem are the frogs , deer's, snakes,



herpestes, wolves, etc. When these animals move toward the reproduction areas, they are forced to cross a number of asphalted roads that are often found around the waterways. Therefore the adult breeder specimens face mass extermination due to their slow and clumsy movement at dusk or during the night hours, before they have laid their eggs. It has been shown that the impact of roads can cause the extinction of these populations of amphibians.

Materials and Methods:

The area of Bhandara district is selected to study the actual biodiversity crisis and its present status in rural areas of Bhandara district. To have an idea and evidence of truth of hypothesis, the comprehensive survey and study of forest areas in Maharashtra is done to harvest the data about present status of official and local approaches towards the biodiversity. Wild life acts are the major tools for the present study. The approaches of rural and urban localities towards the conservation of life forms is studied. The appropriate data about wild life in the study area is taken from the forest personals, Time to time interviews and interaction with rural localities is done.

Discussion:

Most of the cultivated taxa are held in a small number of collections and mostly only in small populations. Lack of genetic exchange and stochastic processes in small populations make them susceptible to detrimental genetic effects. The low number of ex situ populations in most botanical gardens poses a fundamental problem for conservation. The total ex situ breeding collection is therefore very small with respect to the stated aim of conserving regional gene pools, S. F. Carrizo et al, (2013). The striking lack of information on source populations casts doubt on the value of using such ex situ populations for potential reintroductions. They also require testing for fitness and similarity to wild populations before they are brought to the field. Thus, conservation actions of botanic gardens such as training and capacity building, needs to be better understood and better coordinated.

Today, much of the lines of evidences are increasingly pointing out a significant global decline in biodiversity by numerous, varied, and interacting drivers. More than half of the habitable surface of the earth has already been significantly altered by human activities. As a consequence, biodiversity of our planet is on the verge of decline and extinction despite our limited and incomplete knowledge on them. Word to word and point wise enforcement of wild life acts 1972 and 1984 may solve the problem, but correct interpretation with optimum man power is the necessity of the day. Today's quantity of forest related staff of the central and state government is insufficient, Indian wildlife needs the field staff that continuously monitor the wild life, R. C. Lacy, (2013).

Biodiversity loss and extinction processes can occur in two phases. The first phase is known as deterministic and often resulted from human threats such as habitat loss, fragmentation and degradation, direct exploitation of the species, competition from exotic and domestic species, and persecution and killing due to human animal conflicts, K. Leus, (2011). The human animal conflicts includes the accidental loss of wild life. Wild life such as hyenas, wolves, wild cats, tigers etc. travel out of their habitat forests and get killed by human beings due to fear, or kills in road accidents. No doubt one have to think about the outside travel of wild animals, why they leave their original habitats? Is there a scarcity of food. No doubt carnivores displacement occurs only and only due to scarcity of primary consumers (prey) in their area. Hence it is necessary to improve the food herbs and shrubs in the forest areas. Each and every part of forest must have to monitored for availability of the flora useful of food for primary consumers. Easy and ample breeding of producers needs food supply and water at their habitats, now the more emphasis is given to the availability of water supply, S. Christie, (1998). Barren lands belts in the Indian forests must have to prepare for useful grasses and trees.

The second phase is known as deterministic that resulted from failures in mitigating threats that eventually result in very small, fragmented, and isolated remnant populations. Then these small



remnant populations become vulnerable to a number of other, nonhuman caused threats and demographic events. Thus, very intensive management of populations and individuals is often necessary to prevent extinction, R. Frankham et al, (2002).

Agriculture is one of the most important land-use that results in detrimental environmental consequences. There are many threats to biodiversity as a result of agricultural practice through changes in land-use, replacement of traditional varieties by modern cultivars, agricultural intensification, increased population, poverty, land degradation, and environmental changes including climate change. Most of the Indian wildlife destructs due to impure water and poisonous chemicals used in agricultural practices. There may be two precautions concerning with loss of wild life due to above causes. Each and every agricultural crop fields have to enclosed with proper border fencings. Secondly the avoid of agriculture practices at seepage catchments of water bodies may stop the contamination of water bodies. Hence to achieve the facts special social awareness education drive is needed to ensure proper and coordinated conservation attempts of the concerning authorities.

Conclusion:

Biodiversity is a precious gift of nature given to human beings. In situ and ex-situ conservation needs the proper management strategies, which may not be done with less man power. Hence more man power is necessary to monitor the wild animals as well as land and water flora. Special experts concerning with continuous hydrological monitoring of wild water bodies may save the animals from diseases and death due to poisonous drinking water. Uncontrolled use of agricultural insecticides and pesticides should be controlled in seepage catchment areas of water bodies. Logical methods of conservations may be taken in consideration, in the conservation practices. Concerning agencies must be aware of displacement of wild animals from their habitats, due to scarcity of food plants or prey animals. The thought of conservation of animals and conservation of plants may be changed to breeding facilities for animals and breeding facilities for plants.

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