

WILDLIFE CONSERVATION

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Wildlife conservation is an activity in which humans make conscious efforts to protect plants and other animal species and their habitats. Wildlife conservation is very important because wildlife and wilderness play an important role in maintaining the ecological balance and contribute to human quality of life.

Wildlife resources constitute a vital link in the survival of the human species and have been a subject of much fascination, interest, and research all over the world. Today, when wildlife habitats are under severe pressure and a large number of species of wild fauna have become endangered, the effective conservation of wild animals is of great significance. Because every one of us depends on plants and animals for all vital components of our welfare, it is more than a matter of convenience that they continue to exist; it is a matter of life and death. Being living units of the ecosystem, plants and animals contribute to human welfare by providing

- Material Benefit To Human Life
- Knowledge About Genetic Resources And Their Preservation
- Significant Contributions To The Enjoyment Of Life (E.G., Recreation).

Human society depends on genetic resources for virtually all of its food; nearly half of its medicines; much of its clothing; in some regions, all of

its fuel and building materials; and part of its mental and spiritual welfare. Genetic resources are treated as inexhaustible mineral resources, but we need to care about them. It is here that the concept of management and conservation of wildlife comes into play, because anything that is not human or undomesticated is 'wildlife'. Presence or absence of an animal or plant in a region is determined by ecological and historical factors. Animals and plants are living indicators of the characteristics of their environment; their ranges mark the places where environmental conditions are the same or similar. To interpret the range of a species properly, it is necessary to know, in detail, the conditions required for the species to live and thrive. The science of zoogeography has both ecological and historical aspects. On this basis, the world can be divided into six geographical regions:

Nearctic: North America and Greenland

Palaeartic: Eurasia, without India

Ethiopian: Africa, south of the Sahara

Oriental: India and Indochina

Australian: Australia and New Zealand

Neotropical: South and Central America, and the Antilles

“Wildlife” is a word whose meaning expands and contracts with the viewpoint of the user. Sometimes it is used to include all wild animals and plants. More often it is restricted to terrestrial vertebrates. In the discipline of wildlife management it designates free-ranging birds and mammals and that is the way it is used here. Until about 25 years ago wildlife was synonymous with “game,” those birds and mammals that were hunted for sport. The management of such species is still an integral part of wildlife management but increasingly it embraces other aspects such as conservation of endangered species. “Wildlife

management” may be defined for present purposes as “the management of wildlife populations in the context of the ecosystem.” That may be too restrictive for some who would argue that many of the problems of management deal with people and, therefore, that education, extension, park management, law enforcement, economics, and land evaluation are legitimate aspects of wildlife management, and ought to be included within its definition. They have a point, but the expansion of the definition to take in all these aspects diverts attention from the core around which management activities are organized: the manipulation or protection of a population to achieve a goal. Obviously people must be informed as to what is being done, they must be educated to an understanding of why it is necessary, their opinions must be canvassed and their behavior may have to be regulated with respect to that goal. However, the most important task is to choose the right goal and to know enough about the animals and their habitat to assure its attainment. Wildlife management may be either manipulative or custodial. Manipulative management does something to a population, either changing its numbers by direct means or influencing numbers by the indirect means of altering food supply, habitat, density of predators, or prevalence of disease. Manipulative management is appropriate when a population is to be harvested, or when it slides to an unacceptably low density, or when it increases to an unacceptably high level. Custodial management on the other hand is preventative or protective. It is aimed at minimizing external influences on the population and its habitat. It is not aimed necessarily at stabilizing the system but at allowing free rein to the ecological processes that determine the dynamics of the system. Such management may be appropriate in a national park where one of the stated goals is to protect ecological processes and it may be appropriate for conservation of a threatened species where the threat is of external origin rather than being intrinsic to the system. Regardless of

whether manipulative or custodial management is called for, it is vital that

- (i) The Management Problem Is Identified Correctly
- (ii) The Goals Of Management Explicitly Address The Solution To The Problem
- (iii) Criteria For Assessing The Success Of The Management Are Clearly Identified.

Goals of management

A wildlife population may be managed in one of four ways:

1. Make It Increase
2. Make It Decrease
3. Harvest It For A Continuing Yield
4. Leave It Alone But Keep An Eye On It.

These are the only options available to the manager.

Three decisions are needed:

- (i) What Is The Desired Goal
- (ii) Which Management Option Is Therefore Appropriate
- (iii) By What Action Is The Management Option Best Achieved?

Wildlife Conservation in India

India is the seventh largest country in the world and Asia's second largest nation with an area of 3,287,263 km², a national border of 15,200 km, and a coastline of 7516 km. For administrative purposes, India is

divided into 28 states and union territories and is home to more than 1 billion people, which is approximately 16% of the world's population.

Ecologically, India can be divided into three main regions:

- The Himalayan Mountain System
- The Peninsular India Subregion (Woodlands And Desert)
- The Tropical Rain Forest Region.

A great wealth of biological diversity exists in these regions and in India's wetlands and marine areas.

'Project Tiger' and Conservation Practices

Tigers once inhabited a vast area from Turkey to the east coast of Russia and China, north to Siberia and south to the Indonesian island of Bali. The royal Bengal tiger, *Panthera tigris tigris*, has always been an integral part of the life and legend of India. At the beginning of the 1900s, the Indian tiger population was estimated at 40,000 animals. The first official estimate, done in 1972, recorded only about 1800 tigers. This led to the establishment of a task force under the Indian Board of Wildlife, and based on their recommendations, 'Project Tiger' was launched on 1 April 1973 with the following objectives: • to maintain a viable population of tigers in India for scientific, economic, aesthetic, cultural, and ecological values; and • to preserve, for all times, areas of biological importance as a national heritage for the benefit, education, and enjoyment of the people.

Current Status of the Blackbuck /Indian Antelope

The blackbuck (*Antelope cervicapra*), or Indian antelope, is exclusive to the Indian subcontinent and is one of the most elegant antelope species in India. Its striking sandy color and beautiful spiraled horns make it

unquestionably the most splendid specimen of the antelopes. It is also the swiftest long-distance runner among animals; at the slightest hint of danger, it can run for about 10 km at 60 km/h. A buck with five does constitutes a family. Given protection, blackbucks breed prolifically. The blackbuck was once very abundant, but constant persecution by humans has sadly reduced its numbers, and it is now considered to be an endangered species. The blackbuck is no longer found in regions where it used to thrive. It was distributed throughout the plains of Punjab, Haryana, Uttar Pradesh, Rajasthan, Orissa, Gujarat, and Tamil Nadu, and was hunted by the princely states with the help of trained cheetahs.

Current Status of the Great Indian Bustard

The great Indian bustard (*Ardeotis nigriceps*) is a large, handsome bird of the shortgrass plains of the Indian subcontinent. It shared its habitat with the blackbuck (*Antelope cervicapra*), chinkara (*Gazelle bennetti*), nilgai (*Boselephus tragocamelus*), wolf (*Canis lupus*), fox (*Vulpes bengalensis*), jackal (*Canis aureus*), and wild cat (*Felis chaus*), but is now confined to a few pockets in Rajasthan, Gujarat, Madhya Pradesh, Andhra Pradesh, and Karnataka states in India. The great Indian bustard is an endangered species with less than 1000 surviving individuals. Ironically, it is the state bird of Rajasthan and an indicator of the health of the grassland ecosystem of the Indian plains, but it is on the brink of extinction. The great Indian bustard forages, shelters, displays, and breeds in the grasslands, and its absence is the first warning signal that grasslands are deteriorating

Gangetic Gharial

The gangetic gharial (*Gavialis gangeticus*) is a thoroughly aquatic crocodilian and a resident of deep, fast flowing rivers. It is primarily a fish-eating species and uses sandbanks for nesting. The gangetic gharial used to have wide range over all of Indochina, but today it is the most endangered of all the crocodilians. A gharial status survey conducted in Nepal indicated there were 60 individuals in the wild. In the Sind region of Pakistan, there are only one or two gharials remaining. The species is practically extirpated in Bhutan and Myanmar. The situation in Bangladesh is much worse. No gangetic gharials are found in the wild there due to heavy impacts from fishing activities and habitat degradation.

Conclusions

Wildlife habitat and species around the world are facing a crisis. It is estimated that global warming may cause the extinction of 15–37% of species by 2050. This is another aspect which needs attention because we could lose about 1.25 million species. Unlike other environmental losses, this one cannot be reversed because nature does not give second chances to biodiversity. If we take into consideration the conventional reasons why wildlife is disappearing in Asia, India is doing far better than other countries. India has launched an extensive protected area network of research institutions in which legislation, socio-economic factors, and wildlife research are playing a great role. The Central Zoo Authority plays a key role with zoos in programming research activities related to the conservation and propagation of wild animals. Planned research activities include studies on wildlife biology, genetic variability, specific nutritional requirements, animal behavior,

epidemiological surveys, and disease diagnosis through postmortem examination. The future depends on interaction between captive and wild animals, preservation of biodiversity, and genetic and demographic variations of species. India still has 65% of Asia's tiger population, 85% of the Asian rhino population, 80% of the Asian elephant population, and 100% of the Asiatic lion population. These are all highly endangered and poached animals.