

Legislative Framework For Biodiversity Conservation with special Reference to Wildlife under threat in J&K

Dr. Monika Bhardwaj

Introduction : The biodiversity we see today is the fruit of billions of years of evolution, shaped by natural processes and, increasingly, by the influence of humans. It forms the web of life of which we are an integral part and upon which we depend. Biodiversity refers to the variety of life forms: the different plants, animals and microorganisms, the genes they contain, and the ecosystems they form. The process of evolution means that the pool of living diversity is dynamic. It increases when new genetic variation is produced, a new species is created or a novel ecosystem formed. It decreases when the genetic variation within a species decreases, a species becomes extinct or an ecosystem complex is lost. The concept emphasizes the interrelated nature of the living world and its processes.¹

Biodiversity is a combination of two words 'Biological and Diversity', signifying diversity is generally defined as the number and variability of all forms pertaining to plants, animals and micro-organisms and the ecological complexes they inhabit. The Convention on biological diversity, 1992 defines Biodiversity as "the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part, this includes diversity within species, between species and of ecosystems."²

Earth's biodiversity, as we observe it today, is the product of billions of years of evolution. The loss of biodiversity due to any factor, either natural or artificial, is a great irreparable loss to global economy. Once a biological species is lost, it is lost forever and we cannot recreate it up till now despite the accumulation of voluminous knowledge on biology. As the biodiversity decreases, the genetic diversity also erodes. As a result, our capacity to maintain and enhance agricultural, forest and livestock productivity also decreases.

The nature has bestowed with us a very rich heritage of wildlife. The Indian subcontinent harbors various kinds of wild fauna and flora due to its unique geographical position vis- a- vis variability in climate and geological makeup. Wildlife is, indeed a great benefactor of humanity with much aesthetic and recreation values as cultural magnitude. Rudyard Kipling's famous, "The Jungle Book" revolved around the Indian way of looking at wildlife. Mowgli, brought up by the wolves in the jungles, loved nature and felt sick when deprived of it. Panchtantra stories have a number of adorable references to different animals.³ The peaceful coexistence of man along with wild animals dates back to prehistoric times of India, where the man actually worshipped these animals. The man learnt his own ways and means to conserve animals even without going to the sophisticated schools of forest management unlike today. The conservation of biodiversity is not modern concept. To quote a small example, the Konga tribes belonging to the eastern part of Orissa have a folklore stating

¹ See generally, Bell and McGillivray, *Environmental Law*, 1-3(2008); IUCN, *An Eye on Nature*, online: www.iucn.org; Odum op.cit, "Modern Biology Series" in *Ecology*, p.1.

² Convention on Biological Diversity, 1992, Article 2.

³ See article by O. P. S. Vidhyarthi, "Habitat degradation & man-animal conflict" in *The Jammu Height*, August 2013 p.47

that the present day elephants were dogs earlier. These dogs one day complained to God against the tribals and about the ill-treatment meted out to them. God, taking pity on them, transformed the dogs into elephants. Therefore, the present day elephants, by way of taking revenge, are ruining and destroying their crops. Thus, the conservation of animals has never been a new concept for Indians.⁴The following categories of threat have been recognized by World conservation Union (IUCN).

- I. **Endangered Species**
- II. **Vulnerable Species**
- III. **Rare Species**
- IV. **Threatened Species**

Endangered Wildlife Species in Jammu and Kashmir The Indian Himalayan Region has been recognized as distinct phytogeographic zone with two subdivisions viz- Western Himalaya and Eastern Himalaya stretching from Jammu and Kashmir in the west to Arunachal Pradesh in the East- India including Jammu and Kashmir is very rich in Biodiversity. The State of Jammu and Kashmir has been regarded as a heaven on Earth, and is also called the bio-mass State of India as it is rich in the cultural diversity of the people, as well as diversity of flora and fauna in the forest areas. India has a rich and varied heritage of biodiversity, encompassing a wide spectrum of habitats from tropical rainforests to alpine vegetation and from temperature forests to coastal wetlands. Like anywhere else in the world, the biodiversity of India is also at peril and Jammu is no exception to it. There are lots of wildlife species which are at the verge of extinction.

Owing to great diversity in the climate, altitudinal variations and geological formations, the Jammu and Kashmir State has led to an ideal environment for rich variety of wild animals. The State of J&K has also a rare distinction of being inhabited by fauna of both the oriental and the European genera. The rare mammals of the State consist of Kashmir stag (Hangul), the Musk Deer, The Tibetan antelope, the Markhor (wild goat), snow leopard, brown bear etc. Jammu and Kashmir too sustain a rich avifauna assemblage and offers breeding ground to a large number of birds. However, due to heavy biotic pressure, the habitats of many wildlife species have been distributed badly. Not only this, illegal poaching, indiscriminate grazing of the pastures, and vehemently tree felling have been much increased. All these causes have become the potent sources for the declining of a number of wildlife species. The population of the Hangul has been reduced to such an extent that the "World Wildlife Fund" has included this species in the Red Data Book of the endangered species. ⁵Tibetan antelopes are on the verge of extinction because of their fur. Shahtoosh which means king of wool is produced from the fur of endangered Tibetan antelope also known as Chiru. Skilled artisans weave the shwals from the special fur of the animal which keeps it warmed even at the altitude of over 5,000 metres. Now this species is under threat.

The poachers and the timber thirsty people have ruthlessly harmed the habitat of snow leopard due to which their number has also been reduced considerably. Presently, Markhor

⁴ Lella Lakshmi , "Who needs protection :Tiger or Tribal?" *The ICFAI Journal of Environmental Law*, Vol VI, No.4,(2007).

⁵ See article by Prof. R. D. Gupta, "Wildlife under Threat" in *Daily Excelsior* dt October 7, 2012.

(wild goat) appears to be an endangered species. The highly threatened wild life species Markhor which is only found in the snow bound higher reaches of Pir Panjal in Jammu and Kashmir is facing extinction. The number which was nearly 3000 about six decades back after survey by a team of Britishers, has reportedly reduced to 50 to 70 at present. A senior official in the Wildlife department indicated that Heerpur Wildlife sanctuary is the habitat of highly threatened species in the world for Markhor and some other endangered species.

Similar is the situation of the Musk deer and Yak. Himalayan Musk deer was wide spread from Pakistan through North India and Nepal to Bhutan and Burma and parts of Tibet and South west China. Now they are found in isolated pockets of Nepal and are near extinction. In India only 25% of the oriental population is left which is confined to Jammu and Kashmir State, Himachal Pradesh and Uttaranchal States. A unique feature of the Musk Deer is the presence of musk gland in the male musk deer. The male musk deer produces on an average about 25 kg of the musk per year. Musk Deer is hunted for musk gland. However, it can be obtained without killing it with the help of injection. The gelatinous brown musk secreted by preputial gland has been used in medicines and cosmetics for centuries and today it fetches U. S. \$ 40,000-59000 per kg in the international market.⁶ In J&K population of Himalayan musk deer is on decline because of hunting pressure and destruction of natural habitat due to nomadic and grazing along with unsustainable commercial logging and extraction of medicinal plants by Government as well as locals.

Like higher reaches of the State, the Siwaliks of Jammu, especially its kandi belt are devoid of a number of wildlife species. About six decades ago, kandi belt of Jammu had a large number of wildlife species like tiger cheetah, neel gai, wild bear as well as birds like peacock, peahen, crow, sparrows, quails and vulture. However these days, the kandi belt had less number of these animals and birds. The number of jackals, fox and crow have so much reduced that these birds were placed in schedule 5th of the Red Data Book and later on shifted to scheduled 1st and hence are considered the endangered species of birds.⁷ Parrots melodious sound, pea fowls dancing steps and sparrows chirping has been entertaining every one since long. But what about vultures? They neither have an attractive look nor melodious sound. But it has a great ecological significance in maintaining sustainable ecosystem. During the course of time, this bird has been neglected in such a way that their population has declined drastically and now population remain within sixty thousand only. Vultures in India are reeling under the threat of extinction including the state of J&K.⁸ reports from Himachal Pradesh, Jammu and Kashmir, Rajasthan, Karnataka and Tamil Nadu are also available in literature which indicates that the population of vultures is disappearing largely. Vulture is a great scavenger which feed on dead animal carcass. Carcasses which are rotting are the main source of disease spread. Vultures clean the environment by eating the carcass. It not only prevents the disease spread among the animal but also to the human being. During natural calamity like flood, drought etc, it cleans up the putrid carcasses. Major decline in population has disturbed the local environment or the ecological system. Now the vulture is listed in the Red list of IUCN

⁶ See Prof. Saleem Ayaz Rather, "Endangered musk deer" in Daily Excelsior dt December 16, 2012.

⁷ *Supra* 8

⁸ See Dr. Dhirender Kumar, Dr Vkas Mahajan, Dr R. K. Taggar & Vibha Raj Shanti, " Vanishing Vultures in J&K," in *Daily Excelsior* dt. April 15,2012.

(International Union for Conservation of Nature). There are lots of reasons for extinction of there wild heritage.

Reasons for extinction:

There are several causes for the loss of biodiversity i.e. the loss of biological species. These are briefly explained as follows⁹

A. Habitat Loss and Fragmentation

The habitat loss is the main cause of biodiversity loss. This is due to clear felling of forests, diversion of forest land to non-forest use, mining activities, construction of dams and roads in forests areas, overgrazing by domestic cattle population, metal and pesticide population and conservation of wetlands to agricultural use. The habitat loss has vastly reduced and fragmented populations of several hundred species. A, few examples are Asiatic Lion, Indian Great Bustard, Lesser Florican and Indian Elephant.¹⁰

B. Disturbance and Pollution

Natural disturbances and calamities, such as fire, tree fall and defoliation by insects severely affected bio-communities. These can destroy biodiversity on a large scale. The introduction of unwanted material in ecosystems severely affects the living organisms. Pollution may reduce and eliminate populations of sensitive species.

C. Introduction of Exotic Species

New species (exotic species) when enter a geographical region, have drastic effects on existing species (endemic species).These species may cause disappearance of existing species through changed biotic interactions.

D. Hunting/Exploitation/Collection/Fishing

Hunting or live harvesting of animals was the major factor for reduction of populations of species like large carnivores, some primate species, waterfowls, turtles and crocodiles before the enactment of Wildlife Protection Act 1972 in India.

E. Accidental Morality

The accidental morality of endangered species frequently occur due to electrocution from high tension power lines, train hits, road kills, ingestion of smothered plastics, ghost fishing and indiscriminate use of power boats and trawlers.

F. Climate Change

The range and abundance of plant and animal species are changed drastically due to changed climatic conditions. Some species which cannot adapt to changed climate may migrate to new locations. Most plants and animals can tolerate only a narrow range of ambient temperature.¹¹

Effects of Biodiversity Loss

The loss of biodiversity has many fold effects to our environment and us. These are briefly described below:

A. Loss of Valuable Genes

⁹ E. O. Wilson, “*The Current State of Biological Diversity*” in E, O. Wilson (ed) *Biodiversity* (1988).

¹⁰ Visit, www.envfor.nic.in.

¹¹ Online:http://en.wikipedia.org/wiki/climate_change; See also, “A guide to facts and fiction about climate change” at <http://www.royalsoc.ac.uk/downloaddoc.asp?id=1630>

Loss of biodiversity is the loss of valuable genes. The present day genes available in all the biological species are the products of millions of years of evolution. The loss of a natural gene is a great loss to our economy. Once a gene is lost, it is very difficult and highly expensive to synthesize it artificially and that too possible only if the base sequence is available otherwise the modern gene machine or gene synthesizer cannot produce it. The long history of major crop failures in the world has taught the biologists about biodiversity as a storehouse of valuable genes. We cannot neglect to conserve the variety of genes or genetic diversity available in any species. To neglect genetic diversity means to neglect and risk our own survival on earth. So loss of biodiversity is essentially a loss of golden treasure of valuable genes offered to mankind by evolution.¹²

B. Loss of Cultural Diversity

Loss of biodiversity results in a loss of cultural diversity. Human culture co-evolved with nature. Many biological species find mention in different religions, mythology, folklore and great epics of the world. Loss of biodiversity may bring about a significant change in the aesthetic, inspirational and educational role of nature on mankind. Loss of certain biological species from earth may influence the emotional and spiritual well being of the human race as a whole.

C. Loss of Ecosystem

Loss of biodiversity has a profound effect on the loss of ecosystem. Ecosystem is a complex web of inter-relationship and inter-dependence of various species. The loss of a species can have deleterious effects on the remaining species in the ecosystem. The ecosystem functions on the basis of energy flow and food chain. Loss of species disrupts the food chain and energy flow and also causes imbalance in the ecosystem.

Habitat loss paves the way for the loss of ecosystem leading to the loss of biodiversity. Habitat loss results in extinction of endemic species and species with low population either at higher or lower tropic level. Large species with high metabolic demand and highly specific food and living requirements, occupying large habitat are highly susceptible to extinction. Besides these, the species with narrow adaptability, narrow dispersal ability and with low rates of reproduction are more prone to extinction due to habitat loss and loss of ecosystem.¹³

Legislative Measures for Conservation of Wildlife

Conservation of biodiversity includes the preservation of all species, flora and fauna, the enhancement of wildlife habitat, the control of wildlife problems and the sustainable use of forests and wildlife. The rapid rate of extinction of many species of animals is an increasing concern. Habitat preservation and enhancement are critical to existence of wildlife in an area. Animals cannot live in an area that does not provide proper food, cover, water and special needs. People's activities alter many habitats, which acts as a detriment to wildlife. Conservation and sustainable use of biological resources based on local knowledge systems and practices is ingrained in the Indian ethos and way of life. Formal policies and programmes for conservation and sustainable use of biodiversity resources date back to several decades. The concept of conservation of biodiversity is enshrined in the Indian Constitution in Article 48(A) and 51A (g). Major Central Acts relevant to biodiversity are: the Indian Forest Act, 1927; the

¹² P.C. Joshi and N. Joshi, *Biodiversity and Conservation*, 2004.

¹³ K. Rajamohan, *Maintaining Biodiversity*, 1-6(1992).

Wildlife (Protection) Act, 1972; the Forest (Conservation) Act, 1980; and the Environment (Protection) Act, 1986, The Biological Diversity Act, 2002. The various Central Acts are supported by a number of State Laws and Statutes concerning forests and other natural resources.

A. Wild Life (Protection) Act, 1972

The Wild Life (Protection) Act 1972 passed by the Parliament under article 252 of the Constitution at the request of eleven States, was intended to provide a comprehensive national legal framework for Wild Life protection. "The policy and object of the wild life laws have a long history and are the result of an increasing awareness of the compelling need to restore the serious ecological imbalances introduced by the depredations inflicted on nature by man. Besides this, The Amendment Act¹⁴ of 2002 provides that the Central Government shall constitute the National Board for Wild Life, with Prime Minister as Chairperson. The State Government shall constitute a State Board for wild life with Chief Minister of the State as the Chairperson; the Minister in charge of Forests and Wild Life Vice- Chairperson; and other members as prescribed.¹⁵ The Board shall meet at least twice a year and shall regulate its own procedure including quorum. Any defect in the constitution of the Board or any irregularity in the procedure of the Board shall not affect the merits of the case.¹⁶

Despite such clear provisions of the Act, many States in the country have shown laxity in the enforcement of Wild Life Act. In the case of *Centre for Environmental Law, WWF v. Union of India*,¹⁷ the Supreme Court directed the States which had either, not constitute Wild Life Advisory Board or where the term of the Board had expired, to constitute Boards within two months. The Court also directed in this case that State Governments, which had failed to appoint Wild Life Wardens, should appoint Wardens for all the areas within the State. It shall be the duty of the Wild Life Advisory Board to advise the State Government in the selection and management of areas to be declared as protected areas; in formulation of the policy for protection and conservation of the wild life and specified plants; in any matter relating to the amendment of any Schedule; in relation to the measures to be taken for harmonizing the needs of the tribals and other dwellers of the forest with the protection and conservation of wild life; and in any other matter connected with the protection of wild life which may be referred to it by the State Government.¹⁸ The Act deals with penalties for contravening provisions of the Act. It further provides in some cases maximum punishment, which can be imposed and for other offences minimum as well as maximum punishment has been provided.

B. The Wildlife (Protection) Act, 2006

The Wildlife (Protection) Act, 2006 came into effect from September 4 of 2006, with the following features:¹⁹

¹⁴ 2 Section 5-A

¹⁵ Section 6. This section was substituted by the Amendment Act of 2002.

¹⁶ Section 7

¹⁷ 1997) (6) SCALE 8 (SP), See also A.I.R. 1999 S.C. 354; (1998) 9 SCC 623

¹⁸ Section 8

¹⁹ <http://envfor.nic.in/legis/wildlife>

1. The duration and value of the sentences for disturbing the tiger reserves have been enhanced. Hence, the penalty for an offence relating to the core area of a tiger reserve, in case of first conviction, the imprisonment for not less than three years extended up to seven years. The imprisonment may be along with that may extend from Rs. 50,000 to Rs. 2 lakh. Similarly, the punishment at second subsequent conviction level has been increased to imprisonment upto seven years along with fine that would be something between Rs 5 lakh to 50 lakh.
2. The National Tiger Conservation Authority (NTCA) and the Wildlife Crime Control Bureau are to be constituted within six months from the date of commencement of the Act. These machineries are empowered to investigate and check the poachers and other persons who interfere with tiger and its natural habitat.

C. The Biological Diversity Act, 2002

The primary aim of the Act is to provide for *Conservation of Biological Diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources*, knowledge and for matters, connected therewith or incidental thereto.²⁰ The Act has constituted a „National Biodiversity Authority“ at the Centre with its head office at Chennai, consisting of fifteen members and one Chairman who shall be an eminent person in the field of conservation and sustainable use of Biological diversity.²¹ The State Government also established State Biodiversity Boards“ which shall be body corporate. The State Governments are also authorized to notify the areas of Biodiversity importance as *biodiversity heritage site*. Every local body shall constitute a 'Biodiversity Management Committee' within its area for the purpose of conservation, sustainable use and documentation of biological diversity. The Biological Diversity Act also provides for penalties for those who contravenes the provisions of the Act.

Other preventive measures

Besides abovementioned legislative measures, various preventive steps have been taken by the people as well as State in order to conserve precious wildlife. The most glaring example in this context is of *Shahtoosh case*. In *Ashok Kumar vs. State of Jammu and Kashmir and Others*²², a Public Interest Litigation (PIL) was filed in the J&K High Court by the petitioner seeking implementation of the provisions of J&K Wildlife (Protection) Act as well as Convention on International Trade in Endangered Species (CITES) which prohibits the import of 'shahtoosh' into India. The shahtoosh wool is derived from the soft undercoat of the Tibetan antelope also known as Chiru. Three to four such Chiru have to be killed to weave one shawl. Each shawl costs several thousand dollars in the international market. In 1977, the Government of India declared the said antelope as protected animal under Schedule I of the Wildlife (Protection) Act of India, 1972. Thus hunting and trading in the

²⁰ Act No.18 of 2003; online: <http://www.envfro.nic.in>.

²¹ Section 8 of the Act.

²² Shahtoosh Case, 2005

products of all the Schedule I species was deemed to be illegal and punishable with heavy fines and imprisonment. In consequence of all this momentum to protect the said antelope and the PIL filed in 2002, the manufacture of shahtoosh shawls was banned in the state of Jammu and Kashmir (J&K). Further the J&K Assembly passed an act, which placed the Tibetan antelope (*Panthelops hodgsonii*) in Schedule I of the Jammu and Kashmir Wildlife (Protection) Act, the highest protection. The court observed that the weavers of shawls could take up alternative livelihoods such as weaving of pashmina, as continuous shahtoosh weaving on large scale would make the species extinct and thus ending the trade in shahtoosh permanently.

Then there is conservation plans for bearded goat in J&K (Markhore). According to sources, the Supreme Court appointed Central Empowered Committee (CEC) had in a meeting supported State Government's request to release 17 crore directly for the species conservation plan. After the Supreme Court directive on the recommendations of the National Wild Life Board (NWLB) allowed passage of historic Mughal Road through Heerpur Wild Life Sanctuary in the Pir Panjal ranges, the J&K Forest, Environment and Ecology department has received the compensation amount of Rs 17 crore for the recovery and habitat restoration of highly threatened species Markhore in the sanctuary.²³

Very few States are so fortunate as to have natural forests. State of J&K is one of the fortunate State to have undulating natural forest named Manda. Kissing the national highway the sanctuary is a naturalist's delight. This golden sanctuary is the richest and abundance of the Himalayan golden eagles, the beaded vultures, the Indian black partridges, the Himalayan snow cocks, local cocks, the jungle fowls, jackals, the black neck cranes, nightingale, neel gai, ducks, swans. Besides this natural sanctuary there is Mahamaya forest, Nandini sanctuary, Surinsar, Mansar wildlife sanctuary. The Government of J&K is taking all necessary steps to preserve this biotic diversity.

Conclusion

As already stated that habitat destruction is the main reason of wildlife depletion in whole of the country including the State of J&K, so the habitat has to be ameliorated by all means. For this purpose, deforestation must be stopped. Awareness programme should be launched through electronic and print media about the importance of wildlife. Caution boards should be erected around the habitat areas as defined by wildlife department. Special squads should be framed to have a check on poaching and hunting. Shooting of wild animals must be totally stopped and it is not possible, so it should be allowed merely in rare cases, especially for game birds and game animals and it should be only during non-breeding time or season. Educational institutions should be asked to celebrate the wildlife week every year that should include lectures, seminars and awareness rallies about the importance of wildlife. Wildlife week is a celebration of wild heritage and puts the spotlight on all creatures big and small. The goal is to educate people about wildlife, other resources

²³ Source *Daily Excelsior newspaper*, December 26, 2009

and ecology. Besides this Wildlife Crime Control Bureau should set up toll free number for wildlife lovers to call and report about poaching and other illegal activities involving wildlife. The toll free number would play an important role in encouraging people to report illegal wildlife activities. To conclude if we do not care for these wild animals it will result in the disturbance in the environment and time is not far away that our own survival will be threatened. So the need of the hour is to protect the wildlife in order to have balanced environment.

The author is
Assistant Professor of Law, The Law School, University of Jammu.
(Feedback at: bhardmona@rediffmail.com)