

The background of the journal cover features a top-down view of a desk. On the left, a pair of black leather brogue shoes is partially visible. In the center, an open notebook with lined pages and a silver pen lies on a light-colored wooden surface. To the right, a black leather bag with a zipper and a black leather watch with a silver face are also visible. A large, semi-transparent white rectangular box is centered over the image, containing the journal's title and ISSN information.

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# **AN ANALYTICAL STUDY ON WILDLIFE CONSERVATION AND PROTECTION**

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## **Chapter I Introduction**

### **What is wildlife?**

Wildlife performs a crucial position in preserving the balance of our environment. It serves various purposes starting from shielding our biological diversities to preserving our cultural ethos. Wildlife is essential for placing a critical stability that allows us to stay and grow. However, with developing modernization and globalisation, we are dealing with a weather crisis and our flora and fauna in India is reducing each day.

### **What is conservation?**

Conservation method to save you waste of a resource. Wildlife conservation can be described because the exercise of protective animal species and their habitats. Which includes defensive each the animals and their habitat.

Tamil Nadu Protected Area management and development of forest resources and wildlife. The overall area beneath the blanketed area management is 7,072.Ninety five sq. Km. Which involves 30.92% of the State's Forest vicinity. The Protected Areas in the State consists of 5 National parks, 15 Wildlife sanctuaries, 15 chicken sanctuaries and a pair of conservation reserves except five Tiger Reserves viz. Anamalai, Kalakkad - Mundanthurai, Mudumalai, Sathyamangalam and Srivilliputtur Megamalai. These Protected Areas had been hooked up beneath Wildlife (Protection) Act, 1972. Further Tamil Nadu additionally has the difference of having 3 Biosphere Reserves viz. Nilgiris, Gulf of Mannar and Agasthiarmalai, which can be the world over acclaimed for his or her rich and specific biodiversity. The Western Ghats are one of the 25 worldwide hotspots and one of the 3 megacenters of endemism in India. One 6th of landmass of Tamil Nadu is blanketed with forests. According to the State of forest document 2003 via the Forest Survey of India, the full forest cowl of the State is 22643 KM<sup>2</sup> constituting 17.41% of geographic area. This consists of 2440 KM<sup>2</sup> of very dense woodland, 9567 KM<sup>2</sup> of reasonably dense woodland and 10636 KM<sup>2</sup> of open woodland. Tamil Nadu ranks

11th a few of the Indian States and Union Territories on the subject of general woodland cowl. The recorded woodland area of the state is 22,877 KM<sup>2</sup> constituting 17.59% of the geographic vicinity. Tamil Nadu ranks 13th the various Indian States and Union Territories close to general recorded woodland vicinity.

### **Laws relating to wildlife conservation in Tamil Nadu**

Tamilnadu Forest Act 1882 An Act to make provision for the protection and management of forests in the State of Tamil Nadu. Preamble. - Whereas it is expedient to make provision for the protection and management of forests in the State of Tamil Nadu;

- Tamilnadu Hill Area (PT) Act 1955 An Act to provide for the regulation of the cutting of trees and the cultivation of land in hill areas in the State of Tamil Nadu . The following Act of the Tamil Nadu Legislature received the assent of the Governor on the 2nd September, 1955 and Is hereby published for general information.
- Tamil Nadu Preservation of Private Forest Act 1949 An Act to prevent the indiscriminate destruction of private forests and interference with customary and prospective rights therein and for certain other purposes.
- The Wildlife(Protection) Act, 1972 This is umbrella legislation for wildlife conservation in India. It was enacted with the main objective of protecting wild animals and plant species to ensure the ecological and environmental security of the country. The main features of the act are as follows. 3 Nationalgeographic.org. 2022. [online] Available at: <<https://www.nationalgeographic.org/encyclopedia/wildlife-conservation/>>3The act provides for the establishment of wildlife sanctuaries, national parks, etc It prohibited the hunting of endangered species. A statutory organisation named the national board for wildlife was constituted under the provisions of this act. The act also provided for the establishment of the national tiger conservation authority. The Act has included two new protected areas, Community reserves, and Conservation reserves.
- The Indian Forests Act, 1927 The Indian Forest Act,1927 is comprehensive legislation relating to forest management in the country. Its main objective is to consolidate the pre-existing laws relating to forests, the transit of forest produce, and the duty leviable on the timber and other forest produce. The Act also made the conservation of forest and Wildlife more accountable. The Act has also defined the procedures to be followed

in declaring reserve, protected, or village forests. Further, the Act has prohibited grazing of cattle, felling of trees, fishing, quarrying, use of forest products, and hunting in these forests.

- The Forest (Conservation) Act, 1980 The Act has been passed by parliament for the conservation of forests and the matters connected therewith or ancillary or incidental thereto. The Act was further amended in 1988 which places certain restrictions on the power of the state government concerning reservation of forests and use of forest land for non-forest purposes.
- The Environmental (Protection) Act, 1986 The Act was enacted to provide the protection and improvement of the environment as a whole. It also empowered the central government to establish suitable authorities for preventing environmental pollution in all forms and to resolve environmental problems arising within the country.
- The Biological Diversity Act, 2002 India is regarded as one of the rich countries in terms of biological diversity, therefore it must protect and conserve its biological diversity. This responsibility has grown even more when India became the party to the United nations conventions on biological diversity signed in Rio. To give effect to this convention the parliament has passed the biological diversity Act. The main objective of the Act is to provide for the 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.

**Scope:**

Wildlife habitats which are merchandise of tens of millions of years of evolution must be conserved and sustainably controlled to fulfill the social, monetary, ecological, cultural, leisure and religious desires of the present and destiny generations. Water, barren region and natural world are intimately and irrevocably connected. Wilderness areas and mainly forests which can be the repository of flora and fauna and biodiversity have either contracted or disappeared because of severe agricultural, natural and home pressures. Natural processes, forests and other natural world habitat recharge aquifers maintain water regime and slight impacts of floods, droughts and cyclones and thereby they make certain meals protection and modify weather exchange. They also are a supply of meals, fodder, gasoline and different products supplementing the sustenance of local groups. Conservation of biodiversity is at once related with conservation of ecosystems and therefore guarantees water and food safety. The

ecological protection of the State as an entire and monetary nicely being of the human beings nearby thru water and food security can only be completed by way of protecting our biodiversity in perpetuity with none reservation. Forests and the desert areas in Tamil Nadu are the treasure-residence for multitudes of biodiversity beyond our creativeness. They also are the repository and digital pharmaceutical factories of an array of medicinal flowers. These regions form the pleasant underground water tank protecting volumes of treasured pure water which might be released step by step into the streams, rivers and wells down beneath. They shape the carbon sink, sucking and storing the deadly carbon-di-oxide for the gain of all living matters. They are the most natural lungs imparting the crucial oxygen for all of the dwelling things to breathe and survive.

**Objectives:**

- Provide absolute safety of the location from all factors causing degradation, depletion and destruction of flora and fauna and wildlife habitats through strict enforcement of the Wildlife (Protection) Act, 1972 and Tamil Nadu Forest Act, 1882.
- Eco-improvement works in and around blanketed regions to offer the essential advantages to the occupants of enclosures and villages respectively to make sure their support and inclined participation in natural world conservation.
- Encourage suitable monitoring and studies works to expand programmes and plans, and thereby tackle the identified troubles.
- Facilitate training and consciousness introduction, facilities for the advantage of all sections of populace and in particular college students. Create recognition on the need to conserve our natural bio-assets via diverse mass media and different way.
- Take fire prevention and manage measures in and around Sanctuaries thru particular programmes.
- Take habitat healing and development measures anyplace essential.
- Relocation of human settlements from Protected Areas.
- Prevention of outbreak of contagious sicknesses amongst wild animals by taking prophylactic measures amongst home animals coming into Sanctuaries and National Parks.
- Develop ex situ conservation centres like Zoological Parks and gene gardens, and so on.
- Creation of Education and Interpretation Centres.
- Construction of crop protection systems like fences, trenches and walls, and so on.

- Identification of recuperation of corridors to facilitate free movement of animals between and around Protected Areas.
- Settle good enough reimbursement to the individuals for dying or damage caused by wild animals.

### **Need for study:**

Tamil Nadu is endowed with a rich treasure trove of biodiversity in its forest in particular discovered in Western and Eastern Ghats. The conservation of biodiversity is of paramount significance to the forest management of the State. Therefore, TamilNadu Forest Department has formulated a challenge generally focusing its interest on conservation of critical biodiversity each in the Protected Area in addition to in other Reserved Forests. 7 In order to guide the principle purpose of biodiversity conservation, the venture additionally envisages big scale tree cultivation in personal lands which will increase the herbal aid base out of doors the wooded area area. Training, Education, Research and Extension sports have additionally been designed to increase the institutional ability development as a way to enhance the first-class of biodiversity conservation efforts and ecosystem management.

### **Significance:**

Protected Areas of Tamil Nadu have the sizeable capability to arouse the senses, people are endowed with - be it visible, auditory, odor, taste or contact. The sensory revel in one enjoys is unique in multiple way that it lingers on inside the mind of individuals at some point of his existence in perpetuity. Even though historically we've reputable and respected and preserve our herbal wealth and biodiversity, they have come under severe hazard lately because of various anthropogenic causes. People's involvement and assist is definitely important to make natural world conservation a fulfillment in our State. Let us understand the want to conserve our natural background and make all of us aware to conserve and sustainably manipulate them for the advantage of the existing and future nicely being of mankind. Man-animal conflict due to clash of hobby is taking a extreme and huge share in and around our included regions and needs special interest and care of all concerned.

### **Hypothesis:**

Degradation of forests, the habitats of natural world, fragmentation, overgrazing by means of

domestic cattle, forest fires, poaching and killing of animals because of man-animal struggle are the primary threats our flora and fauna populace in Tamil Nadu is dealing with these days. The gift examine has following hypothesis:-1. 2. In order to have healthful relationship with nature and people. To give significance to natural world conservation.

**Research questions:**

1. How to build ecological corridors for wildlife conservation ?
2. How to seek solution to man-animal conflicts?
3. Elucidate the future forest management in Tamilnadu.
4. Enumerate the steps involved to protect our national animal.

**Limitation:**

- No right consciousness with regard to wildlife conservation.
- Management of natural world resources at Landscape stage with higher Inter-State Coordination.
- Harness the sentiments of tribal and forest dwellers in natural world management while making sure livelihood protection.
- Understanding the lesser known diversity for conservation profits.
- Ensure that each and each Protected Area has a Management Plan in location.

**Research Methodology:**

Doctrinal legal studies technique, additionally called &quot;black letter&quot; methodology, makes a speciality of the letter of the regulation rather than the law in movement. Using this technique, a researcher composes a descriptive and targeted analysis of felony rules located in number one sources (instances, statutes, or rules). The purpose of this technique helped me to collect, organise, and describe the regulation; provide commentary at the assets used; then, become aware of and describe the underlying subject matter or machine and the way each supply of regulation is attached. This method has helped me by using imparting a solid shape for crafting a thesis, organising the paper, and allowing a thorough definition and rationalization of the rule of thumb.

**Mode of citation:**

Throughout this studies I actually have used the blue e-book citation approach.

### **Data Collection:**

Data collection is a methodical process of collecting and analysing particular statistics to proffer answers to applicable questions and compare the results. It specializes in locating out all there is to a particular problem count. Data is accrued to be further subjected to hypothesis trying out which seeks to give an explanation for a phenomenon. Hypothesis testing eliminates assumptions whilst creating a proposition from the basis of reason. Secondary facts series, however, is being referred for accumulating 2nd-hand records collected through an person who isn't always the unique user. It is the method of amassing facts that is already current, be it already posted books, journals, and/or online portals. In terms of ease, it's far a good deal less highly-priced and simpler to accumulate.

### **Books:**

- Forest history of the Nilgiris Traced by Dr.T.Sekar Conservator of forests, Coimbatore Circle, Coimbatore.
- Nawab shafath Ali khan's man eaters and wildlife challenges
- Joint Forest management in Tamilnadu Prof.Dr. R. Annamalai Member of JFM network govt of India, Tamilnadu forest department chennai.

### **Statutes:**

- The Forest conservation act 1980.
- Forest conservation rules 2003.
- The Tamilnadu hill areas preservation of trees Act, 1955.
- The Tamilnadu hill areas preservation of trees rules, 1957

### **Reports:**

- Action taken report of central empowered committees
- Recommendation for review by the secretary udhagamandalam on 28.04.2004 to government E&F, chennai.

## **Chapter II Conservation Then and Now in Tamilnadu**

Tamil Nadu has a rich history of Forest and Wildlife Management, the historical literature speaks volumes about concerns of Forest and Wildlife, "Thirukural" has severa prices

dedicated to soil, earth, water, forests and wildlife. The Cholas, Pandyas, Pallavas, Cheras and other illustrious kings had paid reverence to the Natural sources. The Scientific control of Forests and Wildlife inside the State started out with the British Raj and this legacy is persevering with until date. Understanding the history and ancient actions, efforts and impacts is vital to diagnose a number of those moves of the beyond that retain to effect us and our welfare these days and learning instructions for day after today for a higher destiny. Diagnosing the historical past is crucial due to its contribution to the system of evolution, increase and sustainability of natural sources. Some of the early cultures practised a form of flora and fauna control once they attempted to reduce animal harm to crops or predation on domestic animals. Many of the primary wildlife conservation practices have been associated with trying to find meals and recreation, wherein hunting customs developed into wildlife laws. The Wildlife game on licence met the needs of petty kings and landlords who held the trophies as pleasure possessions. Management has been an ever converting phenomenon, in terms of Forests and Wildlife within the State. The term wildlife conjured with wild animals considered as a recreation for searching. Rules had been framed during earlier part of the history to modify game looking as a recreation. Hunting blocks have been identified. Many of the protected regions of these days were the looking grounds of the erstwhile kings and landlords. Tamil Nadu has been bestowed with Mother Nature with its bounty and style. The socio-cultural traditions of the nation have constantly been a riding force to conserve and defend the wealthy natural resources. The ideas of Sthal Vriksha, Nakshatra Vanam, sacred groves linked bushes and nature conservation within the socio- economic milieu of the societies. Sastha Kovils and lots of other temples within the boundary as well as inside the interior of forest regions and this very presence of the God in the forests made them as pious locations to be revered and revered. The wild animals because the vahanas of the God and Goddesses like tiger, elephant, peacock and plenty of others adored them with a unique fame and paved a brand new method to conservation of species through setting it at the helm of the social order. These were the real exact conservation attitude and power of the country and its humans in making it a pioneering kingdom in wildlife conservation tasks. Wildlife control is interdisciplinary in method and exercise. Primarily it deals with upkeep, protection of species, and their habitats. Holistic wildlife control needs to be based on expertise and information of flora and fauna ecology, biology, management, schooling and extension. Broad ecological standards along with wearing potential of the habitat, upkeep, recuperation and conservation of habitat, retaining contiguity of habitats, predator-prey control, reintroduction of extinct species, seize and trans-area of plentiful or problem species and so forth. Are covered in the manner and exercise of

wildlife management. Historically, forests in Tamil Nadu for the duration of the pre-British length were controlled by the community residing in and around the woodland by means of humans dependent on them for their subsistence and livelihood. Realising the significance for protection and control of forest in the Presidency of Madras, Madras Forest Act, 1882 become enacted. The preamble of Madras Forest Act 1882 was safety and management of forest in Madras Presidency. Section 7 of Madras Presidency Forest Act, 1882 stipulates that “No patta have to be granted without the preceding sanction of Chief Conservator of Forests and additionally prohibits clearing of Forest Areas”. Section (50) of the Madras Forest Act furnished punishment up to 2 years or with a fine of Rs.1,000/-. Further as in line with Section fifty one offence punishable with imprisonment for one month or up have been can be cognizable. Hence this enactment has positioned excellent regulations on venture of patta on woodland land and additionally on clearing of forest. This in reality has laid a robust foundation for conservation of woodland and natural world in Madras Presidency. With only a few amendments, this legislation remains in pressure inside the nation of Tamil Nadu even these days after extra than a hundred thirty five years of its enactment. Perhaps because the first step towards natural world conservation, the Tamil Nadu Wild Elephants Preservation Act, 1873 became enacted to save you the indiscriminate destruction of untamed elephants in the State. The imperative regulation as Wildlife (Protection) Act was enacted in 1972 and nearly a century in advance Tamil Nadu led the inspiration stone for conservation by way of enacting the Tamil Nadu Wild Elephants Preservation Act in 1873. Further the involvement of the area people in conservation movement goes lower back to that period. We are in all likelihood the First State to have identified the importance of Wildlife control, the Elephant Preservation Act, 1873, the Tamil Nadu Forest Act 1882 illustrates the experience of concern for Wildlife and their management within the State. The 1894 Forest Policy became a landmark policy within the history of woodland coverage in India as it classified Forests in line with their features and gave unique fame to mountainous areas which have been saved below the category of included forests for environmental protection. It is implied that any safety to wildlife, if available, could be in those class-I forests. The starting of Colleges and University for Education and inclusion of subjects like botany, zoology, anthropology and other sciences paved the way for college kids of Tamil Nadu to take-up Forestry profession. The Forest College, Coimbatore started in the year 1912 which rolled out graduates as medical managers. The entrance of Indian Forest Service officials to the State enriched Wildlife Management projects on technical and clinical strains. Later Colleges started out new projects and degree and postgraduate guides in Wildlife management. Schools additionally furnished possibilities for understanding of natural world

through their curriculums. The FRI and Colleges and later Wildlife Institute of India gave the impetus for Wildlife Education within the Country. Meanwhile the Agricultural Universities also initiated forestry publications at graduate and postgraduate degrees. This State has produced some of the best Foresters and Scientists, who even today serve many components of the Country. For the protection of wild birds and animals, the Madras Presidency enacted regulation namely the Wild Bird and Animal Protection Act in 1912. The Vedanthangal Bird Sanctuary in Tamil Nadu, is understood to were established tons earlier than Hailey National Park (now known as Corbett National Park) the first National Park of the usa, installed in 1936. The concept of panorama conservation may be an emerging field of management these days, the position of the privately owned forests in a bigger blend of land makes use of at the side of reserved and guarded forests are important in imparting ecological services and items. To prevent the indiscriminate destruction of personal forests and interference with commonplace and prescriptive rights therein, the authorities of Tamil Nadu enacted the Tamil Nadu Preservation of Private Forests Act in 1949. Later after independence in 1947, the National Forest Policy 1952 brought about far accomplishing impacts on woodland conservation in Tamil Nadu. The 1952 Forest Policy after independence in particular gave significance to Animal state and uncommon and endangered species. It identified the want for status quo of sanctuaries and National Parks and wishes for unique legal guidelines for safety of Wildlife. The established order of the Central Board of Wildlife and shifting Forests to Concurrent lists mandated both the Union and the State Government to enact legal guidelines and policies for Forests and Wildlife Conservation and Management. Some of the States projects on this route were lessons for other States. Duly recognizing the need for conservation of the soil and flora supported by using hilly areas is vital for the long term ecological and environmental safety of the region, the government of Tamil Nadu enacted Tamil Nadu Hill Areas (Preservation of Trees) act in 1955. The hilly tracts harbour extensive biodiversity due to altitudinal impact and climatic elements and consequently the objectives of conservation of biodiversity are also realised by means of committed implementation of this prison device. The Government of Tamil Nadu enacted the Tamil Nadu Animal Preservation Act in 1958 specifically for protection of certain home animals by way of regulating the slaughter thereof. The Tamil Nadu Animals and Birds Sanctuaries Prohibition Act of 1950 (amended in 1957) encompassed provisions to restrict the sacrifice of animals and birds in or within the precincts of Hindu temples inside the kingdom. These considerable tasks replicate upon the compassion the State held for animal existence and protection. The exercise of Social Forestry came to become operational beginning from the 1980s, after the National Commission on Agriculture recommended in its record in 1976.

Whereas in Tamil Nadu, Community Forestry every other offset of social forestry dates lower back to Sixties with the initiation of tank foreshore plantations on network lands. The hazard to conservation and protection of tigers became realised a good deal in advance through the visionary foresters in Tamil Nadu and,, Mundanthurai Wildlife Sanctuary“ a sanctuary for tigers was set up manner back in 1962, nearly a decade earlier than the tiger crisis was stated and realised in 1970 inside the country. The National Forest Policy 1988 which predicted the safety and conservation of Forests through participatory movement turned into also guided movements for management plans and prescription in support of flora and fauna within the State. However this State also has a recognition of early Conservation projects via the visionary technique of keen Forest officers like M.A.Badshah, the Wildlife Warden. The Government projects have been simultaneously supported by using eager naturalists and unfastened lance ornithologists who emerged as votaries inside the motive of natural world conservation. Their calls for flora and fauna were diagnosed by using Policy makers, which enabled properly choice making for natural world within the State. The Working Plan of yesteryears, the excursion reviews of British Foresters are classic files that have described at period the richness of State“s Forests. The Botanists, Taxonomists and lots of different naturalists, who made limitless journeys to Western and Eastern Ghats have also sketched and recorded bountiful plants and fauna of the State. The Forests were at one time appeared up as a aid of Commerce. The Working Plans illustrate the Working of wood and gas coups, extraction of Charcoal, collection of NTFP. The framework and the practice of preparing wooded area operating plans for clinical control of forests and wooded area based totally items dates again to extra than 140 years. The stock of untamed animals and plants apart from the most important timber trees might also discover vicinity in a number of the running plan files but prescriptions for his or her medical control are missing. The working plans did now not give prominence to the surroundings features that are the consequences of the dynamic interactions and interdependence among the wild animals (together with the microbes, insects, reptiles, birds and lots of different small mammals) and the non residing additives – land, water and soil.

### **Flora of Tamilnadu**

The Indian place with a complete area of about 328 million ha is very rich in organic variety. It is anticipated that about 45,000 species of plant life occur inside the country. The Vascular plant life, sixteen which paperwork the conspicuous flowers cover itself incorporates 15,000 species, of which more than 60% are endemic and have thus far no longer been reported from everywhere else in the international. The general plant wealth of the usa includes no longer

simplest the generally massive, showy-flowered vascular flora, however a huge variety of non-flowering flowers, viz. Ferns, liverworts, algae and fungi. The wild family of crop flora together with related species as well as the species of financial flora (estimated to be over 150) are in themselves a very valuable gene pool. Inventorization of floral and faunal distribution continued underneath the aegis of the countrywide institutes of Botanical Survey of India and the Zoological Survey of India throughout the united states of america and with every subsequent survey, new and unknown species of flowers and animals came to be identified and introduced to the list. 17 Tamil Nadu's variety was also surveyed for the duration of the direction of investigations with the aid of researchers from different clinical establishments. Gamble (1935) enumerated 4,516 species within the then Madras Presidency, even as after the State's reorganisation 2,260 species belonging to 983 genera and 173 families had been defined in Tamil Nadu and Carnatic location (Mathew et al. 1981). Besides, they have got additionally mentioned 111 species of Pteridophytes from fifty nine genera and eleven species of gymnosperms from 9 genera and five families. Subbarayalu and Velmurugan (1999) have described 202 species beneath different IUCN categories of threat. Of this forty five species are endangered, fifty three probably extinct, 29 vulnerable and 75 rare. The Angiosperm variety of India includes 17,672 species. With 5,640 species of flowering plants, Tamil Nadu ranks first many of the States in the u. S. A. In angiosperm range. It bills for almost one-1/3 of the entire plant life of India. This consists of 533 endemic species, 230 crimson-listed species, 1,559 species of medicinal vegetation and 260 species of wild family of cultivated flora. The gymnosperm diversity of the u. S. Is sixty four species, of which 4 species are indigenous Gymnosperms and the relaxation are introduced species. The pteridophyte diversity of India includes 1,022 species of which Tamil Nadu has about 184 species. Tamil Nadu's wild plant range also consists of a large variety of bryophytes, lichens, fungi, algae and bacteria. The evaluation furnished the entire range of plant life in Polypetalae, Gamopetalae and Monochlamydeae to be 1,944, 1,720 and 642, respectively. Distribution of flora in different plant taxa indicates there are a total of 4,306 dicots and 1,241 monocots.

### **FAUNA: WILDLIFE OF TAMIL NADU**

India is represented through a big range of faunal species. More than 50,000 species of bugs, 4,000 of molluscs, 6,500 of other invertebrates, 2,000 of fishes, one hundred forty of amphibians, 420 of reptiles, 1,2 hundred of birds and 340 of mammals, totalling extra than sixty five,000 species of animals are recorded from the united states of america. Tamil Nadu's faunal

biodiversity is equally remarkable. Dr. K. Venkataraman of Zoological Survey of India, Chennai has published approximately 595 species of freshwater faunal, 2,247 species of marine faunal and 1,898 species of terrestrial faunal species in Tamil Nadu. The faunal variety of the State consists of a hundred sixty five species of freshwater fishes, seventy six species of amphibians, 177 species of reptiles, 454 species of birds and 187 species of mammals. According to the CAMP reports the pink-indexed species include 126 species of fishes, 56 species of amphibians, 77 species of reptiles, 32 species of birds and forty species of mammals. The endemic fauna consists of 36 species of amphibians, sixty three species of reptiles, 17 species of birds and 24 species of mammals. Many faunal species had been included in the various schedules of the Wild Life Protection Act 1972, considering their endangered status. Schedule I animals encompass 22 species of mammals, forty two species of birds and 9 species of reptiles. Schedule II consists of thirteen species of mammals. Schedule III consists of five species of mammals and Schedule IV consists of 5 species of mammals, 367 species of birds, 109 species of reptiles and 23 species of amphibians. Schedule V carries thirteen species of mammals and 1 species of birds.<sup>1</sup>

### **BIOSPHERE RESERVES OF TAMIL NADU**

Three Biosphere Reserves in Tamil Nadu are amongst four in India and 90 five in Asia which might be a part of UNESCO's Programme on Man and the Biosphere (MAB). The 3 Biosphere Reserves in Tamil Nadu listed via length are:

- The Gulf of Mannar Biosphere Reserve is 10,500 km<sup>2</sup> (four,one hundred squaremi). Located within the Indian part of the Gulf of Mannar among the Tamil Nadu and Sri Lanka Coasts. Est. 1989.
- Nilgiri Biosphere Reserve is positioned within the Western Ghats and Nilgiri Hills. The reserve encompasses five,520 km<sup>2</sup> (2,a hundred thirty sq.Mi). In the states of Tamil Nadu (2537.6 km<sup>2</sup>), Karnataka (1527.Four km<sup>2</sup>) and Kerala (1455.Four km<sup>2</sup>).
- Agasthyamalai Biosphere Reserve (ABR) changed into hooked up in 2001 and now includes 3,500.36 km<sup>2</sup> (1,351.50 squaremi). ABR is anticipating approval as a participant within the UNESCO-Man and the Biosphere (MAB) Programme.

### **NATIONAL PARKS OF TAMIL NADU**

Tamil Nadu has five declared National Parks with a complete vicinity over 307.Eighty four km<sup>2</sup> (118.86 squaremi), covering simplest 0.24% of the kingdom. This is the 0.33 lowest %

place blanketed of all Indian states and Union territories. 1. Indira Gandhi National Park (previously: Annamalai National Park), 117.10 km<sup>2</sup>(forty five.21 sq.Mi), Est. 1989. 2. Three. Four. Mudumalai National Park 103.24 km<sup>2</sup> (39.86 squaremi), Est. 1990 Mukurthi National Park seventy eight.46 km<sup>2</sup> (30.29 squaremi), Est. 1982 Gulf of Mannar Marine National Park 6.23 km<sup>2</sup> (2.41 squaremi), Est. 1980 five. Guindy National Park 2.82 km<sup>2</sup> (1.09 squaremi), Est. 1976.

### **WILDLIFE SANCTUARIESIN TAMIL NADU**

There are 15 wildlife sanctuaries plus 15 hen sanctuaries that together cover over 2,997.60 km<sup>2</sup> (1,157.38 squaremi), 2.30% of the full kingdom place. Grizzled Squirrel Wildlife Sanctuary, a 485 km<sup>2</sup> (187 squaremi) Giant Squirrel Sanctuary close to Srivilliputhur, in Virudhunagar district along with specially dry deciduous forests with patches of tropical evergreen forests, semi-evergreen forests, wet mixed deciduous forests and grassland. Grizzled large squirrel, flying squirrel, tree shrew, elephant, lion-tailed macaque, Nilgiri tahr, mouse deer, barking deer and plenty of species of birds can be seen Indira Gandhi Wildlife Sanctuary is contiguous with Indira Gandhi National Park in Coimbatore District. The 841.49 km<sup>2</sup> (324.Ninety squaremi) wooded area varies from dry deciduous to semi-evergreen, evergreen and montane 25wet temperate containing teak, rosewood and other tropical species Animals, which includes Indian elephant, gaur, tiger, panther, sloth undergo, wild boar, dhole, Nilgiri langur, lion-tailed macaque, sambar, 4 horned antelope, chital and a number of birds, appreciably the trogar, pied hornbill and several kinds of eagles can be visible Kalakad Wildlife Sanctuary in Tirunelveli District is part of the Kalakkad Mundanthurai Tiger Reserve. This 223.Fifty eight km<sup>2</sup> (86.32 sq.Mi) forest consists of usually tropical moist evergreen forests which change to tropical dry deciduous forests within the foothills and to thorn forests similarly down This sanctuary is well-known for lion-tailed macaque. All 4 species (common langur, Nilgiri langur, bonnet macaque and lion tailed macaque) can be seen. Other animals consist of Nilgiri tahr, sambar, sloth endure, gaur, Indian elephant, tiger, flying squirrel, panther, dhole, pangolin and a number of birds and reptiles. Mundanthurai Sanctuary 282.08 km<sup>2</sup> (108.91 squaremi) in Tirunelveli District, is part of Kalakkad Mundanthurai Tiger Reserve 19Kanyakumari Wildlife Sanctuary is a 457.78 km<sup>2</sup> (176.Seventy five squaremi) tiger habitat in Kanyakumari district declared a sanctuary in February 2008 Mudumalai Wildlife Sanctuary in Nilgiris district is contiguous with Mudumalai National Park. It consists of 217.Seventy six km<sup>2</sup> (84.08 sq.Mi) frequently wet deciduous forest which will become dry

deciduous towards Bandipur such as mainly blended forests with bamboos. Animals inclusive of elephant, gaur, sambar, chital, dhole panther, tiger, sloth bear, python, barking deer, four-horned antelope, not unusual langur, otter, crocodiles (mugger) and a number of birds and reptiles may be seen Sathyamangalam Wildlife Sanctuary in Erode district, 1,411.6 km<sup>2</sup> (545. Zero squaremi), the largest flora and fauna sanctuary in Tamil Nadu, become declared a sanctuary in 2008. The sanctuary was later declared as a Tiger Reserve due to big quantity of tigers sighted throughout the 2010 wildlife survey Vallanadu Wildlife Sanctuary, a 16.41 km<sup>2</sup> (6.34 squarem) black dollar antelope sanctuary in Thoothukudi District, is a scrub forest wherein black greenback, noticed deer, macaques, jungle cat, mongoose, and hares may be seen Point calimere flora and fauna Sanctuary in Nagapattinam district, 1726.00 ha changed into declared 1967. Animals along with Black Buck, Bonnet Macaque, Wild Boar, Flamingoes, and a number of birds and reptiles may be seen Megamalai Wildlife Sanctuary in Theni & Madurai district 26910.82ha. It turned into declared in 2009 and its along with the subsequent animals were seen like Elephant, birds and many others.

### **CONSERVATION RESERVES AND COMMUNITY RESERVES**

Tiruvidaimarudur Conservation Reserve is within the .0284 km<sup>2</sup> (zero.0110 squaremi) compound of the Mahalinga Swamy Shiva temple in Thiruvidaimarudur village, Thanjavur District. Over four hundred little egrets, pond heron and painted stork nest and feed on this area adjoining to the Tamiraparani River, 10 km. From Kalakkad Mundanthurai Tiger Reserve.

## **CHAPTER-III**

### **FOREST HISTORY IN TAMIL NADU**

Tamil Nadu Forest Department is the pioneer in scientific control of forests in India with the appointment of Dr.H.F.C.Cleghorn as First Conservator of Forests of erstwhile Madras Presidency within the 12 months 1856. The focus of Wildlife in Tamil Nadu has taken numerous paths witnessing multitude of activities, overlaying decades of progress in conservation and development of flora and fauna. The important events which have taken area in reshaping the conservation and development of wildlife may be traced to pre impartial and post independent technology in 4 exceptional cycles/ periods (1950-60), (1960) and (1960-seventy six) and (1976-2016) with 1960 as the 12 months wherein a separate enterprise of Wildlife sanctioned with the appointment of natural world officer-in-Charge for the State of Tamil Nadu. The brief

journey throughout distinct cycles and the fundamental traits relating to Wildlife Conservation and Development are as follows: Period/Cycles Major Events relating to Wildlife Conservation and Developments as follows:

### **PreIndependence Era:**

- First Act for elephant safety in 1873; 21 Tourmyindia.Com. 2022. Wildlife Tourism natural
- Introduction of Nilgiri Game and Fish Preservation Act in 1878;
- An Act for preservation of untamed animals and birds in 1912, Official of Vedanthangal as a bird sanctuary in 1936,
- Declaration of a part of Mudumalai as a wildlife sanctuary in 1940. Recognition Tamil Nadu Government took lead in matters regarding flora and fauna conservation with the aid of way of starting up management decisions that mainstreamed conservation and improvement of wildlife in India and Tamil Nadu which brought about evolution of flora and fauna conservation inside the post independence generation. Major traits that took place within the put up independence are as follows:

### **PostIndependence Era:**

The efforts of Wildlife conservation in Tamil Nadu have taken place in 4 distinctive levels and the identical are said under: 1950-60 : G.O.Ms.No.3480, Development, dated 5th September 1950 the Government accorded sanction for the appointment of 9 Honorary Game Wardens, from a few of the contributors of the Nilgiris Game Association vesting them with the powers of Forest Officers under the Madras Forest Act. During the year 1952-53, natural world Protection gained significance and Nilgiris Game Association taken into consideration setting up of gates, two with the aid of the Nilgiris Game Association on the Segur-Anaikatti avenue and two by the Forest department on the principle OotacamundMysore street. The special staff of 1 Game Warden and 3 Assistant Game Wardens had been sanctioned in G.O.Ms.No.1047, Agriculture, dated fifth April 1954 for the Mudumalai WildLife Sanctuary and had been employed from 1st August 1954. In G.O.Ms.No.3154, Agriculture, dated 19th October 1954, the fees of taking pictures licence costs were expanded for all divisions besides the Nilgiris. One loose capturing licence was issued to the Taxidermist, Government Museum, Pudukkottai, according sanction vide G.O.Ms.No.668, Agriculture, dated 18thMay 1954. With a view to maintain the fauna of the kingdom and to maintain the stability of nature a State

WildLife Board was constituted in 1954 with the Minister for Agriculture as its Chairman. The functions of the Board were to endorse the Government in recognize of the subsequent matters:- a. WildLife protection and vital rules consequently: b. Creation of public interest in Wildlife; c. Selection of areas for the protection of positive species of animals, charter of National Parks, and Sanctuaries; d. Reintroduction of extinct species and. Stricter conservation of diminishing species; e. Establishment of zoological parks and gardens and ensuring their proper management. The first meeting of the Board turned into held at Madras in January 1955 and diverse subjects concerning WildLife in the State have been discussed. The first Wildlife day changed into celebrated on the 7th July 1955 in a befitting way all through the State. An enchantment was additionally issued to all taking pictures licence holders to abstain from taking pictures wild animals for a week from seventh July 1955. After State Reorganisation (01-11-1956), Game legal guidelines and taking pictures rules were framed, for the upkeep of game in reserved forests and Class III panchayat forests have been transferred to the manage of the Forest Department. The guidelines prohibited the shooting of certain animals and birds threatened with extinction, as also the capturing of ladies and immature males unique as Big Game except regulating the capturing of different animals and birds. These regulations mandated a closed season for every elegance of sport animal and birds. 'Tiruchirappalli Forest Division' become closed for capturing for the duration of the period for the purpose of rehabilitating the depleted inventory of recreation which became badly affected on account of cyclone in 1955. Consequent on the forthcoming reorganisation of States, it became necessary to restriction the location of the Mudumalai WildLife Sanctuary to 114 square miles with the exception of the 40 rectangular miles of Malabar vicinity. Later, the Government sanctioned the workforce of 1 Assistant Conservator of Forests, three Rangers (Wild Life) and 3 Forest Guards (Wild Life) for the improvement of Mudumalai WildLife Sanctuary below the Second Five Year Plan scheme. The Wild Life Week changed into celebrated in the course of the first week of October 1956 in a becoming way in the course of the State and the equal exercise continues till date. In the Tirunelveli district at Papanasam, a check submit was opened in 1957 to check automobiles for unlawful palms to prevent capturing of tiger and deer. As the stated animal life turned into often observed on the principle roads of Mundanthurai, 33 Tharavattamma Prai and Pickles course. A black listing of offenders was maintained via the District Forest Officer. Prescriptions in the management plan can be traced for the charter of a sanctuary and for enforcing a ban on taking pictures for 10 years with the concept of retaining the available recreation, thus following regions have been declared as closed to capturing for a duration of 3 years from 1957-58. A. B. C. D. E. The forests in Tindivanam Range,

Cuddalore Division. The forests of Thunakadavu Range, Coimbatore South Division. The forests of Sathyamangalam Range, Coimbatore North Division. Kodiakadu Reserved Forest, Tanjore Division. Anchetty Range, Salem North Division. The management of part of the Guindy Park Reserved Forest turned into transferred to the branch with its animal inventory of approximately 300 black dollars, two hundred spotted deer, and many others., and its region turned into in the limits of Madras City. The Ponnar reserved forest in Vellore West Division turned into closed to shooting during 1958-59. Proposals to limit taking pictures of untamed birds and animals in the reserved forests lying between Kambugudi and Singarapet in Tirupattur Range of Vellore West Division were conceded. In Vedanthangal Bird Sanctuary, steps had been taken to enhance the sanctuary which includes planting of fruiting bushes alongside bunds. The taking pictures of water-birds congregating at the sanctuary and, located everywhere in the radius of 20 miles from Vedanthangal lake, changed into prohibited all through the yr (1958-59). A Forester became hired to look after the sanctuary. The Children's Park. Deer Park at Guindy become inaugurated in April 1959 with the aid of Hon'ble Prime Minister Jawaharlal Nehru. 1960 G.O. No. 1211, Food and Agriculture dated 28.03.1960 paved the way for a separate corporation for Wildlife and the put up of State Wildlife Officer-in-charge became sanctioned. With the setting up of a separate State Wildlife Organisation in July 1960, the Gudalur Forest Division changed into abolished and the Territorial jurisdiction of the Division turned into restored to the Ootacamund Division. Ootacamund Division turned into in flip, renamed as the Nilgiris Division. 34The control of Wildlife Sanctuary at Mudumalai came below the newly appointed State Wildlife Officer, Madras. The Management of Vedanthangal Bird Sanctuary and Guindy Deer Park and its Children's Corner changed into additionally transferred to the control of the State Wildlife Officer. Mr. M.A. Badshah, a Specialist in Wildlife become appointed because the First State Wildlife Officer of Madras State (Tamil Nadu) with effect from 01.07.1960 and persisted for 8 years till he retired in 1968. Mr.P.R. Basheer Ahmed succeeded Mr. M.A. Badshah persevered up to 1975 within the put up with a few spoil in between. Mr. Basheer Ahmed was a promising young officer, who received a P.G Degree in Wildlife Management and became sent abroad for training before taking up as the State Wildlife Officer. The publish of Chief Wildlife Warden, came into being inside the area of State Wildlife Officer, as according to the necessities of Wildlife Protection Act, 1972. A Conservator rank publish was created as Chief Wildlife Warden. The first full-fledged Chief Wildlife Warden was Thiru S.A.Rehmatullah, IFS. In due path the put up were given multiplied to Conservator of Forests, Additional Chief Conservator of Forests, Chief Conservator of Forests, Additional Principal Chief Conservator of Forests and Principal Chief

Conservator of Forests. Initially, the Headquarters of the post of Chief Wildlife Warden was at Coimbatore and in due direction were given shifted to Chennai. 1960-1976: During 1960, the State Wildlife Officer inspected Muthukulivayal in Kanyakumari District, Top slip in Coimbatore district, Kukkal Reserved Forest of Madurai district and Kodiakadu in Thanjavur district to examine the possibilities of commencing new sanctuaries. The Kodiakadu place in Thanjavur district became discovered to have excellent opportunities for development into a vacation inn and sanctuary. With a view to introduce species from one vicinity to another within the State, steps have been taken to procure „Capchur“ weapons. Black Buck focused handiest in two locations in Madras State, viz., Kodiakadu Reserved Forest of Thanjavur district, and Guindy 35Deer Park, have been considered to be transferred to different areas, exercise abundant caution to avoid damage and mortality. Action changed into also initiated to find the money for unique protection to the species of animals in threat of extinction together with tiger, four-horned antelope and Black Buck.<sup>23</sup>It become proposed to elevate the fame of tiger and of panther (handled up to now as vermin) to that of “Big Game” and limit the bag consistent with season to one for each shooting licence and also to constitute a sanctuary for tiger as resolved in the VI assembly of the State Wildlife Board. In order to save you poaching and regulate shooting of sport by licensees, 4 anti poaching gates at strategic points one at Thorapalli, 2nd at Kakkanahalla, 0.33 at Benne and the fourth at Masinagudi had been placed up and manned by way of watchers in Nilgiris. Vehicles passing via those gates are stopped and checked. The Anti Poaching gate at Sethumadai functioned satisfactorily during the duration in stopping poaching. The State Wildlife Officer additionally inspected Maravakandy Dam in Nilgiris district and observed a small flock of approximately forty Teals and a few purple lapwings. The region changed into frequented with the aid of sportsmen and nearby shikaries. The The State Wildlife Officer took movement and steps to prohibit shooting within the place. Large congregations of migratory waterfowl had been additionally noticed within the Gangaikondan tank in the Tirunelveli district and inside the Madurantakam and Arapakkam lakes in Chingleput district. The Home Minister broadcast a speak in Tamil over the All-India Radio, Madras, on 1st October 1960, inaugurating Wild Life Week, 1960. The Chief Conservator of Forests and the State Wildlife Officer additionally placed on air talks over All-India Radio on “WildLife Sanctuaries in Madras State” and “Lessons from Wildlife Conservation Practices in different lands” on 4th and 5th October respectively.

Koonthankulam and Kudankulam Bird sanctuaries have been declared at some point of 1994. The Hon“ble Minister for Forests changed into made the Chairman of the Wild Life State

Advisory Board. The First conferences of State WildLife Advisory Board after it changed into reconstituted vide G.O.Ms.No.398, E&F Department dated 14.12.1995 become held on 30.05.1997 at Mundanthurai. Central Zoo Authority of India selected Arignar Anna Zoological Park because the breeding centre for endangered species such as LTM, Nilgiri Langur, Black Buck, Wild dog and sangai and until today it has an extraordinary report of breeding these species in captivity to have a viable population without loss of genetic range. Three Wildlife Biologists are at present hired in Arignar Anna Zoological Park. Several medical guides had been brought out at some stage in 1999-2000. A sum of Rs.165.50 lakhs.

One hundred% assistance has been furnished by Central Zoo Authority for housing rescued animals to be taken over from circus corporations (1999-2000). Karaivetti Bird Sanctuary and Vaduvor Bird Sanctuary were notified all through 1999. Vaduvur Bird Sanctuary (final) notification turned into issued all through 2000. Kanyakumari Wildlife Sanctuary notification turned into issued at some stage in 2007. Sathyamangalam Wildlife Sanctuary changed into declared in the course of 2008. 48Megamalai Wildlife Sanctuary became declared at some point of 2009. Melselvanoor and Keelaselvanoor Tanks Bird Sanctuary and Therthangal Birds Sanctuary have been declared for the duration of 2010. Sakkarakottai Tanks Bird Sanctuary turned into declared at some stage in 2012. Point Calimere Wildlife Sanctuary Block A & Block B, Kodaikanal Wildlife Sanctuary, Gangaikondan Spotted Deer Wildlife Sanctuary had been declared throughout 2013. Nellai Wildlife Sanctuary and Oussudu lake Birds Sanctuary were declared throughout 2015. The Ninth Schedule to the Constitution offers a listing of legal guidelines which are not amenable to judicial overview and in phrases of other provisions of the Constitution, these legal guidelines can not be invalidated on grounds of violation of a fundamental proper. Typically these laws represent the ones which relate to land acquisition and those referring to the proper of a citizen to maintain property. A nine-choose bench of the Supreme Court in I.R. Coelho v. State of Tamil Nadu [(2007) 2 SCC 1] declared that regardless of the said stipulation, in view of the doctrine of basic structure (which incorporates 'judicial assessment') it turned into open to the Supreme Court to study the validity of such legal guidelines In a current choice [Glanrock Estate (P) Ltd. V. State of Tamil Nadu] the Supreme Court has defined the meaning and alertness of this doctrine in the light of the doctrine of fundamental structure as the law of the land The records of flora and fauna upkeep and improvement in Tamil Nadu had its foundation in pre preindependence technology and the first step towards flora and fauna conservation within the u . S. A. Commenced with the Tamil Nadu Wild Elephants Preservation Act, 1873. The issue for wildlife may be traced within the history of conservation in Tamil Nadu. In the Post Independence technology the adventure of

natural world conservation may be traced to four exceptional levels (1950-60), (1960), (1960-76) and (1976-2016) and diverse efforts taken have been said above. The records of erstwhile operating plans and efforts taken during the said four phases display the development of Wildlife Conservation in Tamil Nadu. The Budgetary Estimates for Wildlife Conservation inside the Table underneath show the issues of Government of Tamil Nadu in specific Plan Periods toward Wildlife Conservation and Development within the State. The history of flora and fauna in Tamil Nadu is essential as it teaches classes to preserve a viable wildlife population, comparing Conservation Status, keeping the genetic glide and maintaining this herbal heritage for posterity.

## Chapter IV

### Nilgiris biosphere reserve

Nilgiri Biosphere Reserve (NGBR), the first Biosphere Reserve exact by way of the Government of India in 1986 exemplifies the tropical woodland biodiversity that falls inside the Western Ghats, Nilgiri Hills range of South India. The Western Ghats, joining the Nilgiri Biosphere Reserve, is beneath consideration by way of the UNESCO World Heritage Committee for choice as a World Heritage Site. The panorama of NGBR encompasses 5,520 km<sup>2</sup> within the states of Tamil Nadu (2537.6 km<sup>2</sup>), Karnataka (1527.4 km<sup>2</sup>) and Kerala (1455.4 km<sup>2</sup>). The landscape forms an almost whole circle across the Nilgiri Plateau. The herbal flowers modifications from tropical wet evergreen woodland alongside the western slopes to montane stunted Shola forest amidst the grassy down at the top plateau and on the east, gradually drier deciduous forests ending in thorny scrub. This region and putting is most appropriate home for loads of animals-the lion-tailed macaque inside the evergreen forests, the Nilgiri tahr in the grassy downs, the black dollar in the dry scrub and the tiger and the elephant for the duration of the place. The Protected Areas in the Biosphere Reserve consists of Mudumalai wild life sanctuary and country wide park (321.1 km<sup>2</sup>), Wayanad natural world sanctuary ( 344km<sup>2</sup>), Bandipur national park (874km<sup>2</sup>), Nagarhole country wide park (643 km<sup>2</sup>), Nugu flora and fauna sanctuary, Mukurthi national park (78 km<sup>2</sup>) and Silent Valley countrywide park (89.52km<sup>2</sup>) are blanketed regions inside this reserve. The Biosphere Reserve additionally includes zones of the Nilgiris open to forestry and tourism along with: Nilgiris District (North (448.3 km<sup>2</sup>) and Nilgiris District South (198.8 km<sup>2</sup>)), Erode District (Sathyamangalam wooded area (745.9km<sup>2</sup>) and Erode (forty nine.3 km<sup>2</sup>)) and Coimbatore District (696.2 km<sup>2</sup>) in Tamil Nadu. The reserve extends from the tropical moist forests of the windward western slopes of the Ghats to

the tropical dry forests at the leeward east slopes. Rainfall stages from 500 mm to 7000 mm consistent with year. The reserve encompasses three ecoregions, the South Western Ghats moist deciduous forests, South Western Ghats montane rain forests, and South Deccan Plateau dry deciduous forests. The habitat kinds consist of montane rain forest, semi-evergreen wet woodland, thorn woodland and scrub, montane grassland, and excessive-elevation Shola forests. Fauna includes over 100 species of mammals, 350 species of birds, 80 species of reptiles; about 39 species of fish, 31 amphibians, 60 species of reptiles, 316 species of butterflies and innumerable invertebrates. Rare animals encompass the tiger and the Nilgiri Tahr. The reserve has very wealthy plant range and out of 3300 species, 1232 are endemic. The Conservation and management of the Nilgiri Biosphere Reserve relies upon on the coordination among government businesses and the area people. For effective control, the Nilgiri Biosphere Reserve has been finalised as (a) core area (1240 squarekm), (b) buffer zone (4280 sq.Km). The buffer area is in addition divided into manipulation zones like forestry, tourism and activity zones. These zones are located in all the 3 states of Tamil Nadu, Karnataka and Kerala into which the Nilgiri Biosphere Reserve extends. Most of the plantations are seen best inside the manipulation area. Being one of the hotspots of biodiversity, the Nilgiri Biosphere Reserve has a few national parks and wildlife sanctuaries inside its obstacles. Conservation of natural world is the main goal of those country wide parks and wildlife sanctuaries. Some of these regions have been particular by way of the government as Project Tiger and Project Elephant regions. The NGBR paperwork an home for some of tribes, the forest dwelling humans, with striking countenances and precise rituals-their traditions, mainly relating to healthcare and nature reverence are extremely good. The Kerala and Tamil Nadu part of the Biosphere Reserve is inhabited by means of Todas, Badagas, Kothas, Kurumbas, Irulas and Paniyas, with agriculture and pastoral activities as mainstay of livelihoods. The population of the reserve, specially the tribes, are culturally, socially and emotionally attached to the area and enjoy a symbiotic courting with the biosphere Reserve. The Karnataka part of the reserve is seated within this area is the well-known shrine of Shree Gopala swamy Temple, which has a non secular and cultural importance to the indigenous people and others within the place. The NBGR serves as an essential catchment for the principle rivers together with Bhavani, Kadalundi, Kabbini, Kunthipuzha, Moyar, etc., It also acts as an oxygen reserve and carbon sink other than providing potable water within the lower valleys. The vicinity helps within the conservation of soil, water, minerals, and so forth., and permits waft of nutrients, which in turn results in stepped forward crop yields in and round these river valleys. The exercise of agri-silvi-horticulture and huge availability of NTFPs such as medicinal plants serve the livelihood

desires of humans. The boom in influx of populace from the encircling areas has led to deforestation and consequent habitat destruction. The shoals in Nilgiris were destroyed within the past for plantations. Monoculture of eucalyptus, wattle, blue gum, coins plants like tea, coffee, cardamom and food crops like potato have degraded the soil best along with excessive use of fertilisers. The excessive use of fertilisers in tea plants, monoculture of tree species has deteriorated the ecological offerings inside the vicinity, affecting the porosity of soil and immoderate landslides are being observed. The Nilgiri Biosphere Reserve has been enduring human interference, the recent problems confronted via the humans of the location are regarding human animal warfare, wooded area fires, grazing, creation interest and development projects. All this has brought about big trade in the ecology of the location. Conservation oriented improvement programmes within the reserve are important so that you can no longer handiest test the erosion of the resource base however additionally enhance the residing conditions of the indigenous groups. In this context, eco improvement programmes are envisaged to take 52care of the simple needs of the humans. Emphasis has been given to a visible simple alternate in land use pattern related to those schemes which generates additional profits and safety to the people. This consists of popularisation of energy options, wooded area and grassland management, habitat development, animal husbandry, agriculture and aquaculture development of crafts, education, health and immunisation, and most importantly development of ecotourism as the landscape includes host of oldest areas inside the Biosphere Reserve, which includes Silent valley, Wayanad Nagarhole, and many others. Which are pristine places for ecotourism and can create focus and may create conservation values for destiny generations. The special region development programme(s) relating to NBGR and people orientated programmes with intervention of marketing and scalability throughout the biosphere reserve perhaps can store the ecology and surroundings of the place.

### **Restoration of Sholas - The jewel of Nilgiris**

Shola performs an vital position in holding water deliver of the streams. To quote w.Francis from Madras district gazetteers- The Nilgiris (1908) &quot; the sholas of the Plateau aren't of any high-quality importance from a commercial factor of view, because the timber in them are sluggish- growing sorts which produce wooden of very little fee and in all likelihood take at the least a century to mature, however they upload significantly to the beauty of the us of a and are of enormous use in protective source of water deliver&quot;.30In consonance with the 1988 national forest coverage, the nation authorities initiated many high quality actions in the past due 1980s for the eco healing and organic upgradation of the hills. Maintenance of

surroundings equilibrium inside the fragile hills and allowing the Forest ecosystems to perform their important ecological capabilities came to be diagnosed as areas of priority attention. The step in the direction of this objective was total cessation of planting of more modern areas with not unusual extraordinary species like eucalyptus and wattle. Another parallel action was to conserve and defend the present blue gum and wattle plantations into poly culture areas with indigenous species. In the Forest divisions of Nilgiris, numerous kilometres of woodland limitations were fenced with barbed cord or chain link to provide safety to Sholas. Initial efforts of defensive the existing Shola patches by means of presenting barbed cord and chain link fence inside the hills underneath hill place development programme (HADP) seeing that mid 1989s ended in appreciable upgrades in the natural recruitment of sholas seedlings leading to its upgradation.

### **Birth of 'people- centred Shola conservation'**

There was a gen effort on the part of forest divisions in Nilgiris District during the mid 1980s to improve the sholas, which commenced with certain activities under the centrally sponsored hill area development programme. The primary objective of the Forest sector under HADP has been ecological restoration of the fragile Shola ecosystems so as to conserve this unique assemblage of biodiversity and to allow them to meet the socio economic needs and provide the environmental services to the population of this region. The strategy to achieve this objective was to gradually eliminate the decimating factors like grazing, illicit cutting fire etc. One of the measures taken by the department was to involve the local stakeholders in the conservation efforts

### **Protection related issues in gudalur division**

While we talk issues concerning illegal profession of woodland lands, the small, and scattered forest blocks taking place in Gudalur division come as First at the time table. Gudalur division forms an undulating terrain with low hills and valleys. The us of a right here is rugged, being thrown up here and there into hills, the tallest of them being Maruppanmalai Hill at 1526m. As the region enjoys a slight weather with excessive average annual precipitation of 2286mm, this area paperwork an crucial watershed. The area helps the representatives of evergreen, wet deciduous, subtropical hill savannah and hill valley swamp forests and is home to a various array of rare, endangered and endemic plant life and fauna. The complicated issue of illegal occupancy of wooded area lands may be traced to large inflow of Sri Lankan repatriated human beings from adjacent Kerala, and the neighborhood tribal who occupied swamp areas, set up

tea and other permanent flowers except Pucci residing systems. Prolonged settlement system, which oftentimes are embroiled in criminal battles resulted inside the diagnosed parcel of lands reaching the Forest Department with absolutely advanced plantation plants and permanent buildings, thus making this control more tough. It seems that inside the erstwhile State of Madras, Madras Estates (Abolition and Conversion into Ryotwari) Act, 1948 become surpassed but later for this area the Tamil Nadu Gudalur Janmam Estates 54(Abolition and Conversion into Ryotwari) Act, 1969 become handed. This Act acquired the assent of the President on sixth December, 1969 however the Act changed into to come back into pressure on a date which was to be notified through the Government under Section 1(four) of the Act however it seems that even earlier than the Act changed into delivered into force the constitutional validity of the Act was challenged via numerous Jammies and the plantation lessees from Jammies within the Madras High Court at the ground that the Act violated Articles 14, 19 and 31 of the Constitution of India. The Madras High Court upheld the validity of the Act by its judgment dated twenty sixth October, 1970 but on attraction this Court via its judgment dated 19th April, 1972 upheld the validity of the Act in all respects but it held that phase three (vesting Section) in to date because it pertains to the forests area it could not be appeared as a degree relating agrarian reforms and couldn't consequently get the protection of Article 31A of the Constitution and it is most effective to this restricted quantity that the Act was declared unconstitutional with the aid of this selection in Balmadies Plantations Limited v. State of Tamil Nadu 1973 (1) SCR 25The situation in recognize of janmam lands continues to be extra complex. These lands with an volume of eighty,008 acres belonged to a few zamindari families of nilambur, Kerala. They were initially possessed and cultivated through the lessees and encroachers working beneath a land tenure set up, as designated in Malabar tenancy Act which changed into repealed by using the gudalur janmam estates(Abolition and conservation into ryotwari)Act, 1969. This Act, which gives for the purchase of the rights of these jammies in janmam estates and for the creation of ryotwari agreement in such estates and for the introduction.

### **Key threats/Issues for tiger conservation in Tamil Nadu**

Though the tiger populace in the recent country level exams has proven an boom within the tiger landscapes in Tamil Nadu, there are numerous threats faced by way of those landscapes within the reason of long time tiger conservation. Some of the key issues in tiger conservation in trendy as well as in Tamil Nadu are mentioned underneath, Small and a few Source sites that can support appropriate Breeding of tigers–Fragmentation has ensured that the center

breeding populations or supply web sites of tigers in those landscapes are already small and few. Hence, it is an absolute necessity that those few source websites are secured at any fee for the conservation of the species within the nation. Protection of corridors and the adjacent tiger habitats – Though challenging, it's far vital that further to the full protection of the source websites, steps be concurrently taken to conserve the corridors and adjacent habitats that join and surround the source websites a good way to permit the tiger populations to shape metapopulations. All efforts want to be taken to make sure that adjoining tiger habitats are not isolated and the habitat first-class for the tiger needs to be stepped forward. The conservation strategies would absolutely want to don't forget the more human presence in this habitat.. Adopting the panorama technique to Tiger Conservation – Through the crucial tiger habitats in Tamil Nadu were declared as tiger reserves to be managed on a landscape approach, plenty needs to be achieved on the ground stage to get the concept transferring ahead. The issue of mainstreaming conservation in the improvement situation is essential for any panorama approach toward conservation. Conservation of the tiger as well as different biodiversity needs to be mainstreamed. As habitats are anticipated to shift with weather alternate, improving connectivity within and between landscapes may be an vital version measure in opposition to the influences of climate alternate. Tackling human-natural world conflicts – With the boom in the human population across the tiger habitats, the eventual land-use changes and the boom inside the tiger populations in certain reserves, the conflicts between human beings and tigers are bound to growth. Conflicts between human beings and species just like the leopard, elephant, wild pig, macaque are already extreme in certain tiger landscapes and this problem further lowers the tolerance towards tiger conflicts. It is essential that steps are taken to minimise the conflicts with quite a few measures each outside and inside reserves. Apart from the potential to provide quick and effective medical care, it is also essential that ok ex-gratia and compensation is paid to the affected human beings directly. The Reserve management also wishes to be equipped to redress the conflicts with steps like trapping, tranquilisation, release, treatment etc.

Key steps that need to be taken for the tiger conservation in Tamil Nadu are discussed below:

1. Connectivity among landscapes – All the tiger conservation landscapes in Tamil Nadu proportion borders with adjoining states and the landscapes throughout the border also have protected areas in all cases and Tiger Reserves in most. While Sathyamangalam Tiger reserve stocks borders with Karnataka, the Mudumalai Tiger reserve shares borders with each Karnataka and 57Kerala and the Anamalai and Kalakkad-

Mundanthurai tiger reserves share borders with Kerala by myself. Hence it's miles important that interstate cooperation inside the control of the tiger landscapes is of a very excessive degree so that there may be harmony in addition to coordination inside the management and conservation of the tiger panorama. The connection among the Sathyamangalam and Mudumalai tiger landscape is very strong thru forests of Tamil Nadu as well as thru the forests of Karnataka. These two landscapes are part of the huge and comparatively solid Nilgiris biosphere reserve and it is essential that the slim and vulnerable connections between the diverse habitat tracts inside the two landscapes are maintained and advanced further. The forests of the Coimbatore Division are crucial in imparting the link among the 2 landscapes and the significant tract of forests in Kerala and this truth needs to be recognized and brought into account while planning for the two landscapes. The Palghat hole across the Western Ghats breaks the wild habitat contiguity among these two tiger landscapes and the opposite two tiger landscapes south of the Palghat gap. Though there exists habitat contiguity between the Anamalai and Kalakkad-Mundanthurai Tiger landscapes, across Tamil Nadu and Kerala, the sensitive and prone Shencottah hole habitat which connects the two landscapes desires to be bolstered. This is paramount in ensuring the southernmost tiger panorama inside the Indian subcontinent is not isolated.

2. Connectivity inside a panorama –Tigers are acknowledged to make a quick restoration so long as the habitat satisfactory can be restored however tiger habitats and corridors as soon as misplaced might be difficult to retrieve and repair. There are numerous susceptible and rapid disappearing connections among the diverse patches inside each tiger landscape. The maps and photographs of every landscape as fairly excessive scale/decision desires to be studied in element and all efforts to restore and defend them have to be undertaken. If the connections involve areas aside from Government forests, acquisition of such lands with important reimbursement and thru felony manner must be resorted to with none hesitation. This step might be critical inside the long term conservation of large mammals and other biodiversity in every panorama. E.G., a) the Naduvattam vicinity in Nilgiris which connects Mudumalai and Nilgiris South division b) the Gudalur area which connects Mudumalai and Nilambur Amarambalam-Silent Valley landscapes. The position of the riverine forests/ flora performing as a hall for various large mammals to transport throughout habitats and patches cannot be overemphasised and therefore riverine vegetation wishes to be restored and guarded. 583. Landscape frontiers to be multiplied with greater protected

regions - The important connections within as well as between the 4 tiger conservation landscapes in Tamil Nadu need to be diagnosed, notified and protected. Such regions will be notified as Wildlife sanctuaries or conservation regions with a view to make certain strong and stable connections. E.G., Parts of the Coimbatore woodland department might be taken into consideration for any such step as the forests are crucial in connecting center habitats. Four. Relocation of humans from core reserve wherever viable – All the tiger conservation landscapes in Tamil Nadu have human settlements enclosed inside their barriers. Considering the feasibility and ability effect of the relocation, human beings living in the essential habitats for tigers inside the middle regions can be relocated on a voluntary basis.

3. Poaching controls each tigers in addition to prey – It is definitely vital to bring the poaching of tiger and the prey species to a near 0 each inside the center tiger breeding sites in addition to in the adjoining tiger habitats. Strong patrolling measures coupled with a great intelligence community can make sure this. With adequate aid, the Tamil Nadu Forest Department is in a position to acquire this scenario. The use of technology in making the safety measures more effective ought to be endorsed.
4. Sambhar conservation – Sambhar is one of the most critical prey species of the tiger in the sub-continent and is related to the tiger in all of the tiger habitats of the united states of america. The tiger density has a great correlation with sambhar density as sambhar is one among the precise prey species for the tiger. Hence steps want to be taken to preserve the sambhar inside the tiger regions. Also, if efforts are taken to boom the sambhar inside the adjacent habitats, the opportunity of tigers recolonising the region could be very high.
5. Socio- economic development–The price of conservation to a big quantity is borne with the aid of the human groups residing within and beside conservation landscapes. In order to ensure long time conservation of a habitat and its related biodiversity, it's far critical that these human communities are helped economically and otherwise to fulfill the charges of conservation .They need to be concerned to the extent that the advantages of conservation float to them. Interventions should include finding new approaches of channelling sales to groups from flora and fauna tourism, Payment for atmosphere offerings, incomes forest carbon credit, and switch mechanisms from infrastructure initiatives that generate annual revenues. Traditional ecodevelopment activities to reduce the dependency of the local community on the tiger habitat ought to be undertaken. Ecotourism is seen as a primary road for social-improvement of the

human groups inside the tiger panorama and hence needs to be tapped judiciously. Ecotourism has the brought benefit of galvanising the general public opinion in favour of conservation.

6. Regulate land use modifications - In order to make certain that the great of tiger habitat is maintained and the conflicts are minimised, the land use adjustments are to be strictly regulated. Rapid and drastic land use adjustments are quite disastrous for the excellent of the habitat in addition to the contiguity among patches. Large scale tasks have to be averted inside the panorama. The human community which adjusts their landuse to the wishes of conservation want to be liked and compensated safely. Greater emphasis on silviculture and agroforestry could make the landscape extra pleasant for the conservation of the huge mammals.
7. Conflict decision – The human-natural world warfare throughout the usa is at the upward thrust because of diverse motives. An action plan to address the conflicts from diverse angles wishes to be labored out. Research, obstacles, advance warning mechanisms, safeguards and cognizance can reduce the quantity of conflicts to a awesome extent. An approach to growth the tolerance of the human beings in the direction of conflicts can be expanded with adequate and spark off compensation and a more capability on a part of the Forest branch to deal with the conflicts. Adequate manpower, monetary sources, veterinary gadget and training could be important to boom the capacity of the Forest branch. Standard Operating Procedures (SOP) or protocols need to be developed for numerous varieties of conflicts to make the efforts more effective. Traps, cages, enclosures, ladders, nets, tranquilising system, unique delivery cars, and different system needed in struggle conditions should be to be had in every Tiger conservation landscape. The control of the Tiger conservation panorama should be in a position to provide help to all of the neighbouring divisions on this sector.
8. Intelligence accumulating and organised combat in opposition to crime – It is widely recognized that intelligence amassing plays a key role within the prevention and detection of offences. This is a region wherein the Forest department is generally located wanting. Adequate employees, mechanisms and training could be had to fortify this capability in the branch. Extensive and powerful patrolling strategies complemented through Anti-poaching camps are critical in combating towards crime in the forests. Training of subject strategies, self defence, weapon dealing with, forensics, functionality to document and observe up instances in the law courts etc might be critical. It is also recommended that every wooded area beat is manned by

means of a Forest Guard and three Forest watchers rather than the prevailing association of a unmarried Forest Guard and Forest watcher.

11. Habitat control – Based on research and pilot plots, a few very basic approaches to enhance the habitat for the tiger and related species can be recognized and brought up. All the tiger landscapes are presently facing the problem of invasive species and this desires vast attention. At the identical time, NTFP removal wishes to be both stopped or regulated strictly as NTFP is essential as food for a whole lot of wild animals however is also a key thing within the regeneration and maintenance of untamed habitats.
9. Tribal welfare and employment – All the tiger landscapes are endowed with tribal human sources. This energy desires to be utilised for the motive of conservation and concurrently, the welfare and improvement of the tribal groups need to be looked after. Apart from the potential of imparting everlasting jobs to the tribals living within reserves, the works inside the tiger reserves have to in the main be labour orientated in order that the tribals get great wage earning opportunities right through the yr.
10. Research – Great emphasis needs to be laid on stock, mapping, populace estimation, alternate evaluation and different research elements in the Tiger conservation landscapes. The control plan for the tiger reserves need to financial institution significantly at the research and findings of research in place of hypotheses and presumptions.
11. Training – Apart from schooling on safety aspects, training on clinical factors of flora and fauna control in particular at the sensible subject stage checks and research desires to be supplied to the officers and field staff of the tiger conservation landscapes. Emphasis additionally desires to be furnished on training to handle the human-wildlife conflicts which are probably to manifest within the landscape. Important stakeholders from outdoor the wooded area branch like veterinary docs, police, fireplace carrier personnel, conservation NGOs, village volunteers inside the panorama also can be involved in such schooling.
12. Wildlife veterinary care – Each tiger conservation landscape should have a committed team of veterinary doctors and team to cope with the health issues and war situations effectively. The unit needs to be properly geared up including drugs to deal with any injured, diseased animal, battle issues and submit mortems. The monitoring of the wildlife ailment outbreak in addition to the steps that want to be taken to counter the flora and fauna diseases might be accomplished via this unit. The immunisation of the

cattle in and across the Tiger conservation panorama could be supervised by means of this unit.

13. Functioning of tiger foundations –The tiger foundations to be made independent and colourful to satisfy the prescribed objectives. The basis can be used to make sure that funds are made available straight away for the clean and powerful functioning of the management sports.

### **Human Wildlife Conflict Zones of Tamil Nadu**

#### **A. Nilgiris Eastern Ghats (Nilgiri Elephant Reserve):**

1. Mudumalai Tiger Reserve
2. Gudalur Forest Division
3. Nilgiris North Forest Division
4. Sathyamangalam Forest Division
5. Erode Forest Division
6. Dharmapuri Forest Division
7. Hosur Forest Division
8. Nilgiris South Forest Division.

#### **A. Nilambur - Silent Valley Coimbatore ( Nilambur Elephant Reserve):**

1. Coimbatore Division
2. Mukurthi National Park
3. Nilgiris South Forest Division

#### **B. Periyar (Srivilliputhur Elephant Reserve):**

1. Grizzled Giant Squirrel Wildlife Sanctuary
2. Theni Forest Division
3. Tirunelveli Forest Division.

#### **C. Anamalai - Parambikulam (Anamalai Elephant Reserve):**

1. Indira Gandhi Wildlife Sanctuary
2. Dindigul Forest Division
3. Kodaikanal Forest Division.

In Tamil Nadu, more commonly involved wild animals in the human-wildlife conflicts, where the damage is caused to man and his property, are - elephants (*Elephas maximus*), tigers (*Panthera tigris*), leopards (*Panthera pardus*), wild boars (*Sus scrofa*), bison (*Bos gaurus*), bonnet macaques (*Macaca radiata*), marsh crocodiles (*Crocodylus palustris*), peafowl (*Pavo cristatus*) etc., Whereas, on the other side of the human-wildlife conflicts, almost all the wildlife and their habitat is impacted by the human induced interruptions/ interferences.

## **Causes of Human Wildlife Conflicts**

### **I. Habitat fragmentation and change in land use pattern**

Habitat fragmentation coupled with exchange of land use sample and panorama is gradually endangering the survival of grass land and swamp ecosystems. Thus, human population has invaded the natural habitat of wild animals main to escalation of man animal struggle instances in the region. This unfolded a floodgate of encroachers even from the neighboring states ensuing in excessive degradation of personal forests. That apart, accelerated human populace mainly with the aid of migration, fast urbanisation, and unplanned development activities completed by means of line departments within the above areas caused fragmentation of massive habitats. Thus, within the past few many years, the natural migratory routes have been interrupted in many locations with the aid of an ever-increasing profession of land by means of human beings and an unrelenting abuse of the herbal resources determined in regions which are yet to be declared as forests and handed over to the Forest Department. Consequently, the flora and fauna population in standard and elephants specifically has been divided bodily and genetically into many small, remoted agencies, surviving in pocket areas. Moreover, the land use sample and cropping pattern in many regions have passed through extraordinary exchange within the recent past. It is determined that big areas adjoining to wooded area have been encroached for cultivating seasonal plants like plantain, which entices the wild animals.

### **Degradation of Habitat**

Due to preliminary precedence and awareness for developmental projects, the degradation and depletion of habitats in wooded area lands start acting. The numbers of migratory corridors have been affected leading to fragmentation of the habitat especially for landscape species including the elephants and contributed to increasing human-Wildlife warfare in Tamil Nadu like in many different locations in the united states of America. Other species which include tiger, leopard, bison, etc., have been biologically and ecologically affected because of habitat

degradation and shrinkage The different reasons for the lack of habitat first-class in Tamil Nadu are grazing, forest fires, invasion of unusual species, encroachments, quarrying and mining, destruction of the coral reefs and estuarine environments, over and unscientific harvesting of adolescent wooded area produce, and so forth., which unfortunately hold in spite of the exceptional of the efforts taken by means of the branch.

### **LAST RESORT OF CAPTURING OR SHOOTING DOWN OF MAN EATER TIGER**

In the Nilgiris over the past 3 years, orders were issued underneath sec 11(1)a of Wildlife Protection Act 1972 to shoot 3 man eater Tiger, one each throughout 2014, 2015 and 2016 in the hobby of public protection. One rogue Elephant became also captured in Gudalur vicinity during April 2016.

## **CHAPTER V**

### **FUTURE FOREST MANAGEMENT**

Considering the prevailing scenario of flora and fauna conservation and its foreseeable future, the subject matter of the United Nations 2016 World Wildlife Day became “The destiny of wildlife is in our arms”. Though the point of interest of the World Wildlife Day in 2016 changed into on African and Asian elephants, the theme carried out similarly nicely to all spectrums of natural world and the message of the function of humanity become appropriate and clean. The message applies equally nicely to all nations if no longer greater to India, a mega bio-diverse united states. As in keeping with the International Union for the Conservation of Nature’s Red List, India has over 988 threatened species and is 7th at the listing of nations with the most threatened species globally. These Protected Areas were established underneath the Wildlife (Protection) Act, 1972. Tamil Nadu additionally has the distinction of getting three Biosphere Reserves viz. Nilgiris, Gulf of Mannar and Agasthiyarmalai, that are known for his or her richness and precise biodiversity. The Western ghats are one of the 25 global hotspots and one of the 3 mega centres of endemism in India. The forests of Kanyakumari, Kalakkad-Mundanthurai Tiger Reserve, Anamalai Tiger Reserve, Mudumalai Tiger Reserve, Mukurthi, Srivilliputhur and Megamalai owe their richness in plant life and fauna to their region inside the Western. Site particular understanding on complexities of troubles covering wildlife regions have guided control through the authorized management plan prescriptions. The Protected Areas maintain large habitats of

possible populations of natural world, endemic species, keystone species and provide habitat for wildlife besides landscapes and corridors for big mammals. The Protected Areas in the State are especially managed for conservation of biodiversity, education, exercise, historic importance and particular landscapes and sea scapes. Tamil Nadu no longer best has taken tasks for conservation of terrestrial fauna but additionally initiated movement for conservation of marine vegetation and fauna by using statement of Gulf of Mannar Marine National Park. While discussing the future of natural world of India in preferred and Tamil Nadu particularly, some challenges are very prominent and unless powerful steps are taken to deal with them, the destiny of natural world conservation would have a totally bumpy and unsure journey ahead. The essential demanding situations of wildlife conservation confronted in the Tamil Nadu context are:

1. Human-Wildlife Conflicts (HWC)
2. Integrity of natural world habitats
3. Corridors, connectivity and contiguity
4. Poaching of flora and fauna
5. Stakeholder participation.
6. Capacity improvement in flora and fauna management
7. Gaps in Wildlife research.

### **Human-Wildlife Conflict**

HWC manifests as a result of a extreme opposition between natural world and humans (such as their cattle) for food, water, area or another aid at spatio-temporal scales main to varied ranges of overlap in their operational areas. Such conflicts regularly result in excessive harm to the life and property of guy and irrecoverable harm to the flora and fauna and its habitat. The guy-animal warfare is an rising problem. These troubles want to be attended to with human face if you want to store our wildlife. There are issues like crop depredation by using herbivores like Elephant, Sambar, Spotted Deer, Wild boars and many others. And farm animals lifting because of Tiger, Panther and so on., and lack of human life due to killing of animals like elephants, panthers or tigers. Though the human beings of Tamil Nadu had been extraordinarily tolerant toward wildlife, off past due, human-Wildlife Conflicts (HWC) are step by step assuming significant proportions and posing intense threats to conservation of flora and fauna. It regularly dominates the dialogue on conservation and consumes good sized resources of the Forest department in tackling it. The flora and fauna habitats in Tamil Nadu have a significant human populace residing within the barriers of the habitat as well as

adjoining to it and those villages or settlements have strong aspirations for enhancing their monetary repute even as sporting on agriculture and raising farm animals to generate coins incomes. The growing human populace and associated tendencies have induced interruptions inside the patterns of migration, feeding, hunting, breeding, nesting, and so on of the wildlife. As a effect the stumble upon price among people and wild animals has multiplied considerably resulting in human-wildlife conflicts. These conflicts often lead to death and accidents amongst wild animals and also in lack of human lifestyles, bodily injuries, harm and lack of agriculture/horticulture vegetation and damage to the belongings and houses. Many Protected Areas are having innumerable human settlements in the wooded area areas. Majority of them are woodland based communities. Their wishes and aspirations must be met with. The villages surrounding the Protected Areas/ forests have pressure due to farm animals grazing. This wishes to be regulated and right immunisation of farm animals for sicknesses along the belt areas, say approximately five km. Distance around the forest limitations is a should. As Protected Areas attract travelers, managing the vacationers, public relations, interpretational, educational and exposure talents are also important. Park Management ought to deal with ecodevelopment elements that allows you to help lengthy-time period conservation. A holistic approach in tackling this challenge is the key towards the mitigation of those conflicts. A paramount requirement in this attempt is to make certain that the prevailing habitat of the wildlife is made loose from human disturbances to the quantity viable. Without doubt, the degradation of natural world habitat in various paperwork intensifies the extent and range of conflicts. Biotic pressures like elimination of biomass, NTFP, cattle grazing, pollution and reduction of water resources in the habitat, hearth want to be decreased to the minimal so as to provide the natural world an amazing habitat to live to tell the tale and thrive. The protection of the connectivity and contiguity among habitats or patches is important to save you wild animals from straying out of their natural habitats. It is likewise essential that the human landscapes just out of doors the flora and fauna habitat are managed in a manner to save you the straying of natural world for food, water and so on.

### **Integrity of wildlife habitats**

Integrity of flora and fauna habitats Delineation and securing the boundaries of the wildlife covered areas and reserved forests is a prime undertaking considering the thirst for ownership of land within the State. It is extraordinarily important to discover and evict present encroachments in the habitats and prevent destiny encroachments. It is reasonably well general that after habitat is lost it's miles commonly misplaced all the time. The use of era might be an

vital device in defensive and maintaining the bounds of habitats. Preparation of virtual maps and geo-referencing the boundary stones of blanketed areas as well as reserved forests would pass an extended manner in this attempt. The voluntary relocation of human beings living within the essential habitats within protected regions want to be taken up and key priority blended with resources need to be accorded for such steps. This step would be an important tremendous milestone within the lives of the human communities Involved and might be important for the long term conservation of wildlife populations and species. Human natural world conflicts could additionally be decreased to a brilliant extent with this effort.

### **Corridors, connectivity and contiguity:**

Corridors, connectivity and contiguity In the long term conservation of populations and species, a single huge population has been determined to be more powerful against numerous small populations. Hence massive habitats and populations are essential for the long term conservation of flora and fauna species. Reduction within the size of the habitat and/or splitting of populations has a extreme impact on the viability of populations. Connectivity of habitats is likewise critical for the species which display migratory behaviour or require big domestic stages. Panorama approach with significant emphasis on securing the linkages within and between landscapes might be an critical step in securing connectivity. There is a robust need to steady all regarded corridors with out further lack of time on the way to make certain that we do no longer lose them forever. The available present corridors might also want website online specific protocols and control regimes with required guidelines/prohibitions /controls four.

### **Poaching of wildlife**

Poaching is a critical chance to the survival of wild animal populations throughout the globe. The unlawful trade of flora and fauna and its merchandise has reached alarming proportions and its cost in unlawful alternate is stated to be subsequent most effective to drugs. Poaching is possibly the maximum extreme threat faced with the aid of the freshwater and marine habitats inside the state. Control of poaching is an critical step that needs to be taken inside the already degraded and fragmented landscapes of the united states. Tamil Nadu was one of the pioneer states in evolving powerful anti poaching techniques and the model advanced is being emulated in other states. The best strength of the model advanced in Tamil Nadu has been the participation and involvement of the tribal groups living inside the wooded area regions. Poaching can count on severe proportions fast and silently to wipe out populations. The wildlife species focused as well as the modus operandi of the mafia inside the methods of

poaching as well as its delivery continues changing and for this reason it's far extraordinarily vigilant that the enforcement groups play a proactive function in checking this malaise. A Good intelligence community, effective patrolling, diligent follow up on instances filed towards offenders, tracking of the unlawful chain in each instructions, database on offenders and network and rewards to inspire residents and team of workers inside the fight in opposition to poaching would move a protracted way in controlling poaching. Awareness of the human beings to diminish the market for flora and fauna products is likewise important and it's miles in this area that the enforcement companies and NGOs need to consciousness extensively.

### **Stakeholder participation**

The human beings need to be more aware about their position and obligation in the direction of flora and fauna conservation and this could be recommended by using empowering them and also via incentivizing secured social, monetary and physical capitals for sustained livelihoods. Changing the manner of living of the people, that is compatible with conservation, can be affected by facilitating a procedure of alternate in attitudes, and motivation. Sincere and actual implementation of the procedure of eco-development which has given nice gaining knowledge of's in some websites across the usa might be important for eliciting local humans's participation for natural world conservation. The natural world conservation movement in Tamil Nadu can be proud of the strong involvement of not unusual residents, flora and fauna NGOs, media, civil society organizations, studies companies, educational institutions and volunteers. Tamil Nadu is one of the few states that have worried the tribal communities residing within forests in flora and fauna conservation in a symbiotic manner. The populace estimation sporting activities within the blanketed regions have always been carried out with the assist of volunteer corporations and people and the validity of the results has hardly ever been wondered. Ecotourism has a great ability in flora and fauna conservation and Tamil Nadu could make gains on the stairs already in this course. The most important circulate of natural world conservation in the socioeconomic development agenda of the kingdom could always contain all of the stakeholders and it's far crucial that significant attention is paid on this endeavour.

### **Capacity development in wildlife management**

Capacity improvement in flora and fauna control The threats to the habitat as well as flora and fauna maintains converting and the sector of flora and fauna science additionally continues to adapt and it is on this context that the capacity of the improvement of the Forest department

and its team of workers wishes to hold tempo with it. Though massive sources were invested on this quarter, it is a continuous method and needs constant attention.

### **Gaps in Wildlife research**

Gaps in Wildlife studies Though wildlife technology is a especially new problem, it has made major strides and its contribution in the direction of conservation wishes no further elaboration. However, the form of species and its interactions are so huge, difficult and complicated that we still have a long way to head before we can successfully manipulate habitats and populations on a systematic foundation. Research on management components of species and ecosystems also need in addition thrust to develop sturdy fashions of estimation and management.

## **Chapter VI**

### **Wildlife protection scenario**

Historically, some of the wild animals had been hunted by using the human communities for diverse motives, food being an vital one. It turned into simplest in the ones belts in India where the human communities were strictly vegetarian that this practice became now not not unusual. Wildlife meat has been part of the weight loss program of most of the wooded area fringe and tribal communities in Tamil Nadu, though opportunistic harvest of meat might have been extra commonplace compared to active searching. During the colonial period, the looking of animals, water birds and fishing became an crucial hobby of the rich. The decline of wild animal population began from about the middle of the 19th century with the increase of carrying guns and the improvement in succession of the large bore rifle in 1840 and the explicit rifle in 1860. Apart from the landed gentry, local shikaris had additionally accelerated and a very profitable enterprise of meat supply to market and private personnel had developed (FM in TN). By the late nineteenth century, thinking about the swiftly dwindling elephant populace, the Madras Wild Elephants Preservation Act, 1873 turned into enacted and was the first rules of the State and perhaps inside the complete U. S. A. For offering protection to a single species (FM in TN). Simultaneously, spotting the rapid decline of recreation in the Nilgiris because of rampant searching, the Nilgiri Game Association changed into formed and the first ever sport law „Nilgiri Fish and Game Preservation Act of 1879“ within the usa, got here into being. The Nilgiri Game association at one factor in time had 17 watchers to manipulate poaching and understand offenders and the watchers labored in tandem with the regular forest beat

establishment. For its own endeavour, game control played such an influential position that in an effort to protect sport animals just like the deer, practice changed into everyday around the Thirties that accredited the DFOs to grant rewards of Rs.10/- consistent with animal for the destruction of wild dogs. The Wild Birds and Animals Protection Act of 1912 aimed toward supplying protection to wild birds and animals. The Vedanthangal tank become formally identified as a sanctuary in 1936 and part of the Mudumalai range was constituted into Mudumalai Wildlife Sanctuary within the yr 1940. Some of the early safety measures taken up in TN to defend the wild fauna from poaching have been: In the Tirunelveli district, Papanasam test post became opened in 1957 to test all automobiles for unlawful arms to prevent shooting of tiger and deer on the primary avenue. A black list of offenders became maintained by the DFO, Tirunelveli district. Shooting of black buck and fourhorned antelope turned into prohibited in North Coimbatore Division in 1961. Sathyamangalam range place around Bhavanisagar reservoir and Talamalai range had been closed for capturing. The complete of Tirunelveli North Division changed into declared closed to shooting from 1.10.1962. Subsequent to ban order on tiger and bear taking pictures in Palacode variety and Bevanurmalai forests of Dharmapuri Range of Salem North Division from 1968 to 1970, the Government extended the prohibitory orders in opposition to killing of tigers and bears to the entire nation. Panther became blanketed within the prohibitory list of capturing in 1971.

### **Developments in wildlife protection issues in recent past**

In the current past, one of the maximum critical troubles confronted via the flora and fauna wing in protection of wild animals associated with poaching of elephants. This hassle became confronted in maximum of the elephant habitats and extra so in the areas of the Nilgiris Biosphere Reserve. Areas like Mudumalai WLS, Nilgiris North Division, Coimbatore Division, Sathyamangalam Forest Division, Erode Forest Division had been the prime regions for elephant poachers thinking about the excessive density of elephants, the presence of elephant poachers inside the terrain, the proximity of interstate borders with Kerala and Karnataka and the fertile market for tusks in general at Sultan Bathery, Kerala. The trouble become very severe within the 80s and 90s with the infamous poacher and sandalwood smuggler Veerappan and his gang working on this terrain. Post independence, the poaching of different wild animals particularly ungulates normally for meat and skin and poaching for recreation was additionally a problem throughout the kingdom. Chital, sambar and Gaur were the number one species centered for this. Poaching of a whole lot of animals for subsistence, specifically smaller ones like mouse deer, monitor lizard etc for the cause of meat by the local

community and tribals residing inside and just outside the forests became additionally a recognised phenomenon. In the current past, several wild animals have come to be the goal of poaching and trade for lots of merchandise which fetch high prices in the unlawful market, each domestic and international. Tusks, bones, skins, hair, teeth, nail, bile and liver, meat and so on of various animals are often the reasons for the poaching of animals. Animals like elephant, tigers, deer species, primate species, hare, squirrel, mongoose, snakes, pangolin, numerous bird species specifically water fowl have grow to be the target animals for poachers. Country guns, snares, traps, cages or even electrocution were used by poachers.

### **Steps taken in recent past for wildlife protection:**

The exercise of tribal watchers for safety changed into commenced inside the overdue eighties and early nineties in the Wildlife Sanctuaries, National parks and Reserved wooded area regions having top wildlife density. These tribal watchers had been paid monthly wages beneath diverse schemes. Special antipoaching efforts to shield elephants have been undertaken in the Nilgiris Biosphere Reserve place throughout the Pongal and Deepavali seasons as it changed into a commonplace practice for elephant poachers to take gain of the festival season in addition to the migration of elephants via sure hall areas. It become throughout those intervals that orders might be issued for all personnel to be present inside the discipline and not using a festival leave being granted to them and they would be stationed in unique camps for numerous days. Camps had been located at susceptible locations like Mangalapatti in the Nilgiris-Erode district border and additionally near the interstate border. A team of workforce with some tribal watchers could halt for a week at some stage in the competition season and the group turned into prepared with hearth weapons and HF wi-fi units. Festival season looking of small recreation in various districts like Salem have been managed to a first-rate volume with the aid of deployment of workforce inside the wooded area areas prone to such practices. Another critical measure taken for flora and fauna safety become the employment furnished to Tribals as Reserve watchers. This exercise became started inside the Kalakkad Mundanthurai Tiger Reserve as the Reserve watcher posts inside the reserve might be largely vacant as the group of workers from different regions turned into reluctant to work inside the interior and inhospitable terrain of the Reserve. Staff could regularly are looking for transfer on various grounds and could pass out leaving in the back of vacancies. In order to resolve this problem, the then Chief Wildlife Warden Thiru V.R. Chitrapu despatched an offer to the Government soliciting for orders for using the Kani tribals in KMTR as Reserve watchers without considering the age, educational and bodily qualifications that were prescribed for

Reserve Watchers. The Government regular the inspiration and issued essential orders and the Forest branch hired several Kani tribals as Reserve Watchers. These tribal reserve watchers were very effective in safety of the reserve as they knew the vicinity and terrain properly, had been very healthy physically, understood the behaviour of untamed animals and the modus-operandi of the nearby antisocial factors functioning inside the reserve vicinity. Considering the fulfillment of this experiment, the Government order was prolonged to the Anamalai Wildlife sanctuary and Mudumalai WLS as those areas faced comparable issues and had several tribal companies dwelling within the covered regions. To save you such warfare and defend elephants, the Government of India thru the then Ministry of Environment and Forests released a centrally backed scheme 'Project Elephant' to offer financial and technical assist to the natural world management efforts by using States for their free ranging populations of untamed elephants. The 'Project Elephant' report changed into released in the 12 months 1993. It admits that elephants are facing serious danger because of massive scale destruction and fragmentation of their habitat because of boom in human and farm animals populations, felling of natural woodland and replacing them with single species, industrial plantation, immoderate grazing, woodland fires and transferring cultivation, destruction or capture for crop raiding, human killings, 8 encroachments and guy-made boundaries/destructions consisting of roads, railway strains, dams, canals, tea gardens, agriculture and enterprise and many others. The 'Project Elephant' changed into to provide monetary and technical support to most important elephant bearing States in the us of a. The assignment targets to ensure long time survival of feasible conservation reliant populace of elephants of their herbal habitats through protecting the elephants, their habitats and migration corridors. Other dreams of the 'Project Elephant' are addressing problems of human-animal warfare and supplying for welfare of captive elephants. The predominant sports under this venture encompass the following:

- Ecological healing of present natural habitats and migratory routes of elephants; Development of medical management making plans for conservation of elephant habitats and viable elephant populations in India;
- Promotion of measures for mitigation of human-elephant battle in essential habitats; Moderating effect of human and home cattle activities in essential elephant habitats; Strengthening of measures for protection of wild elephants from poachers and unnatural reasons of demise;
- Research on elephant management associated issues;
- Public conservation education and awareness programmes about elephants; Eco-

improvement of elephant habitats; Provision of advanced veterinary take care of elephants.

### **Present day Anti-poaching Camps – Genesis and development:**

The Anti-poaching machine in Tamil Nadu, with a wide network of anti-poaching camps employing guys from the neighborhood tribal community developed inside the past due Nineteen Nineties and is currently a widely acclaimed model in natural world protection towards poaching inside the united states. Anti-poaching camps were started systematically in the Mudumalai wildlife sanctuary and National Park in 1997-ninety eight. This originated because the Mudumalai Wildlife Sanctuary and National Park sharing borders with each Kerala and Karnataka had several indoors wooded area beats, at distances of approximately 15-20 kms from the headquarters of the beat personnel. The wooded area avenue community changed into no longer considerable and the Forest Ranges also did not own good enough motors all through that length and as a result, these beats could not be patrolled on a ordinary basis by the beat staff by way of shifting walking from their headquarters. Considering the excessive density of wild animals in Mudumalai and lower tiers of protection in many regions, the poachers each for meat as well as elephant tusks took benefit of this and have been poaching animals at will. Considering the above, small buildings/sheds had been built in interior wooded area regions of Mudumalai. The area of those sheds become carefully decided taking different factors into account. The vulnerability of the place, availability of water for the camp inmates, vantage locations, accessibility to the road community had been a number of the factors taken into consideration at the same time as finding the sheds. In truth, a number of the sheds have been positioned at the recognized campsites of the poachers. With the development of the sheds, the body of workers and anti-poaching tribal watchers had been made to halt in the camps each day and night time. Rations have been supplied to the camp inmates and the camp inmates used to prepare dinner their food. Full time and night camps were started. The full time antipoaching camps had been typically positioned in very indoors woodland regions where day by day patrolling via the beat team of workers from their headquarters changed into not possible and as a result, small sheds were built and the group of uniformed personnel and tribal watchers commenced halting inside the sheds. A new batch of personnel and tribal watchers wearing their rations might relieve the earlier batch each 3 days. A sign in changed into maintained at every camp imparting information of the sports of the camp inmates and their findings. For the night time camps, in certain susceptible places near the village borders, sheds (some temporary) were set up in which the workforce and tribal watchers would reach by

using nighttime with rations, cook dinner their dinner and halt for the night time at the camp after which go back returned to their headquarters within the morning. The important activity of the night camp inmates become to screen the motion of any suspects into the forests and also be alert to any gunshots within the nighttime and night and are searching for help from the main camps and forest campus nearby. All the camps have been equipped with wireless base units or/cum walkie talkies and hearth guns. The camp inmates were advised to perambulate all prone areas on a day by day foundation inside a radius of about 10 kms from the campsite. Subsequent to the setting up of AP camps in Mudumalai, the quantity of encounters with poachers and other offenders within the interior regions extended significantly after which got here down step by step indicating the efficacy of those camps. The antipoaching camps yielded widespread fulfillment and this practice turned into extended to Anamalai WLS and NP and later to most of the wildlife and territorial divisions helping massive mammals prone to poaching. The anti-poaching camps also yielded extensive fulfillment in the control of several different offences like tree felling, wooded area fires, NTFP collection etc.

#### **Future of the Anti-poaching and protection activities in Tamil Nadu:**

The Anti-poaching and wildlife safety tasks adopted in Tamil Nadu could be advanced with the subsequent initiatives: Thorough networking of all of the anti-poaching camps among, themselves and with the grasp control room in the Range and Division headquarters for powerful and immediate transmission of audio and video records. Use of era for powerful monitoring and utilisation of patrolling efforts. Use of camera traps and different electronic gadgets to right away come across the entry and movement of flora and fauna poachers in susceptible areas. Establishing an intelligence community inside the lines of the Police to combat natural world crime Electronic database of forest and wildlife offenders, on hand to all the forest divisions and degrees in the State.

Training of team of workers and tribal watchers in jungle battle and in tackling poachers. Training in law for effective processing of wildlife offences Desired policy interventions. Instead of the prevailing device of a wooded area defend and Forest watcher for every woodland beat, we should have a crew of wooded area Guards assisted by means of 3 wooded area watchers. This would relieve the strain as the prevailing FG and FW are on non-stop duty, 24 hours and 12 months a yr or even while one or each of them pass on informal depart, the duty of safety still lies with them. The exercise of tribals being engaged as Forest watchers with relaxation within the qualifications will be prolonged to the whole kingdom as the

machine has been determined to be very powerful. This step would also assist in winning the self assurance and help of the tribals for woodland and natural world protection. Guidelines for taking non-forestry sports in flora and fauna habitats.

### **General Policy:**

National Parks, Sanctuaries and Conservation Reserve are notified under the Wildlife Protection Act, 1972 as committed areas rich in and representing the specific biodiversity of a place. Such covered regions are considered very vital for conservation of biodiversity and for making sure the healthy populations of its floral and faunal additives, for the existing and future generations alike. However, the growing human populace and its growing needs for socioeconomic improvement placed increasing trees on forests which include covered regions each at once and circuitously. This calls for a balance that needs to be struck among improvement and conservation implying that any hobby related to use or diversion of any part of a notified blanketed region can be taken into consideration handiest below most excellent situations, taking completely into account its drawing close effect on the biodiversity of the place, and therefore on the control of the Protected Area. A important a part of this balanced approach is to spell out the feasibility of mitigation to deal with the impacts without compromising the management objectives of the Protected Area. The activities to be taken up within the recognized wildlife habitats additionally need to conform with the orders of the Hon'ble Supreme Court further to the statutory requirements as furnished inside the Wildlife (Protection) Act, 1972. Measures to protect the wildlife and biodiversity in widespread encompass, inter alia, notification of appropriate wildlife habitats as Protected Areas (National Parks, sanctuaries and so on.) below the Wild Life (Protection) Act (WLPA), 1972. Recommendations of the National Board for Wildlife (NBWL) are prescribed inside the Act for regulating any interest inside such areas. Hon'ble Supreme Court thought some of orders has similarly made it vital to seek the hints of this advisory body for regulating sports in the adjoining areas to the Protected Areas. Protection of other forests is ensured thru the Forest (Conservation) Act 1980 wherein, hints of the Forest Advisory Committee are prescribed for this purpose. Protected regions cowl normally the acknowledged habitats of flora and fauna consisting of critical flagship species. Tiger Reserves constitute especially notified regions below the WLPA specializing in conservation of the charismatic big cat underneath the Project Tiger in view of the mainly threatened status of these country wide animals. With a view to making sure conservation of elephants, the country wide history animal, 'Project Elephant' is operational. Technical and financial assistance is furnished by way of the Central Government

for conservation of elephants in the unique elephant habitats in the united states of america. But presently such habitats aren't felony entities. Though many existing elephant habitats are part of the existing Protected Areas, an offer for permitting notification of such important habitats as elephant reserves beneath appropriate criminal provisions is also underneath consideration of the Government within the Ministry of Environment and Forests. It is anticipated that when the prison provisions for assertion of elephant reserves are in vicinity, such regions can also be included under the regulatory regime under Wild Life (Protection) Act 1972 as proper criminal entities. These suggestions prescribe the method of obtaining tips of the Standing Committee of NBWL under the Wild Life (Protection) Act 1972 with recognize to the regions, for which this procedure is obligatory beneath the regulation, and also in compliance to relevant Hon'ble Supreme Court orders. These tips replace the hints dated 15.03.2011 issued in advance on this regard, along side all amendments made therein.

#### **Activities inside Protected Areas:**

The technique of consideration of any thought for use of regions within the included regions, as a obligatory requirement below the prevailing statutes, includes attention and advice of the National Board for Wildlife. However, because the Standing committee of National Board for Wildlife has been delegated the powers of the National Board for Wildlife, such instances are to be noted the Standing committee of National Board for Wildlife for attention and advice. Details of such conditions in which such reference is warranted are defined underneath.

#### **Activities inside a Tiger Reserve:**

A Tiger Reserve notified below the provisions 38V (1) of WLPA can also encompass an current Protected Area or different forests (as the buffer regions). The Tiger Reserve once notified gets conferred protection on par with a Wildlife Sanctuary under section 38V (2). Further section 38W makes it obligatory to attain approval of the Standing Committee of NBWL for any hobby along with alteration of limitations of Tiger Reserves. Therefore, any concept regarding any vicinity underneath the notified Tiger Reserve may also be ruled through the relevant provisions applicable to the Wildlife Sanctuaries and consequently, may be noted the Standing Committee of NBWL for attention.

#### **Activities inside Conservation Reserves:**

The Ministry of Law and Justice has opined that sports to be taken up internal a Conservation Reserve can also be treated in the Standing Committee of NBWL. Therefore, the manner

indicated under para four under needs to be followed for making plans and executing any interest within the Conservation Reserve also.

**Activities in areas other than Protected Areas:**

In addition to the notified covered regions as described above, the consideration of the Standing Committee of N42BWL has been prescribed in certain situations, that are listed below. Activities inside 10 Kms from barriers of National Parks and Wildlife Sanctuaries: 7In pursuance to the order of Hon'ble Supreme Court dated 4th December 2006 in Writ Petition (Civil) No.460/2004, in case any task requiring Environmental Clearance, is located in the ecosensitive area round a Wildlife Sanctuary or National Park or in absence of delineation of such a zone, within a distance of 10 kms from its boundaries, the User company / Project Proponent is required to reap tips of the Standing committee of NBWL. Activities Within regions connecting the Tiger Reserves, notified by using NTCA for controlling the land use as in step with segment 38 O (g):Section 38 O (g) of the Wild Life Protection Act, 1972 entrusts the obligation to NTCA to make sure that areas connecting Tiger habitats are not diverted for ecologically unsustainable habitats besides in public hobby and with the approval of NBWL. Proposals for any sports in such areas duly notified by using NTCA and advocated by means of it according with these provisions, to be blanketed beneath such regulation could be authorized most effective after in search of recommendations of the Standing Committee of NBWL. Violation of this provision is needed to be dealt with by using the NTCA. Process to be accompanied for attention of proposals by the status committee of countrywide board for flora and fauna:43The User Agency / Project Proponent is needed to submit the proposal in the prescribed proforma that that been prescribed through the Ministry of Environment & Forests and is to be had at the website of the Ministry The prescribed proforma has five elements and each element is needed to be filled in by using the User Agency; involved Divisional Forest Officer / Park Manager, concerned Chief Conservator of Forests; worried Chief Wildlife Warden and Forest Secretary. The proforma also seeks statistics in detail on the biodiversity of the area in question; maps of the area, other activities already in region; viable influences of the idea etc. The User company is required to submit Part-I and Part-II of the proforma duly filled in to the worried Forest Officer, who in flip, forwards the same to the Chief Wildlife Warden through the Chief Conservator of Forests. The Chief Wildlife Warden, after giving his particular remarks on the concept, shall ahead 15 copies of the identical to the Government of India, via the Forest Secretary after acquiring the advice of the State Board for Wildlife at the inspiration. The concept received from the State Chief Wildlife Warden may

be placed before the Standing Committee of NBWL, chaired by means of the Minister of State (i/c.), Environment Forests. The which means of the Standing Committee is convened as soon as in 2-3 months. In cases where the location proposed for diversion is big and/or the impact of the assignment on natural world is considered to be serious, site inspections can be performed with the aid of the contributors of the Committee or similarly research/surveys may be conducted by way of the professionals on the instructions of the Standing Committee of NBWL. The website online inspection reports are usually considered in the subsequent assembly of the Standing Committee to allow the Committee to make guidelines. After the Standing Committee of NBWL recommends the proposal, the User company/State Government is needed to technique Hon'ble Supreme Court for final clearance in view of the courtroom orders dated 13.11.2000. In case of border roads, proposals of the Ministry of Defence, a simplified proforma for simultaneous clearance underneath the Forest (Conservation) Act, 1980 and flora and fauna clearance is being adopted under &quot;A Single Window System&quot;. Proposals for survey paintings to be accomplished inner National Parks and Wildlife SanctuariesIn case any sort of survey paintings and/or Environment Impact Assessment (EIA) studies, that is a prelude to destiny diversion of land, are to be taken up in areas regarding a wildlife habitat, then additionally the entire procedure, as prescribed in paragraphs 4 above could need to be observed.

## **CHAPTER VII**

### **Conclusion**

Human population developments are on upward thrust. The aspirations, wishes and needs of the societies from the natural resources are equally on upward thrust pushed with the aid of the trajectory of economic boom. Natural sources do offer the basis of boom however inside the shipping and sporting capacities of the natural structures. Plundering nature and its assets blindly and mindlessly will not offer a sustainable solution. The very survival of the societies can be endangered if profligacy and no longer the prudent use of such an increasing number of scarce assets isn't always simplest preached but practised by all in a society. Wildlife provides a meaning and cause to the ecosystem with the aid of virtue of its living interactions over time and space. Presence of rich natural world suggests the vibrancy and symbolic to green functioning of the machine. Removing flora and fauna from the ecosystem will handiest make the device non responsive and constrained and could effect the plethora of valuable services to the societal nicely being. The increasing times of human-flora and fauna conflicts

and its fallout are indicative of the fact that the whole thing is not well inside an ecosystem containing wildlife. Areas are getting degraded, lost to human use, encroached, extraction of resources maintains from such regions and pressures are mounting. Modern boom indicators – roads bisect the regions and impact flora and fauna motion therefore causing battle. The traditional buffer areas among woodland and the villages have reduced in size to the volume that during many instances now are not to be had. The natural world which can be coming out of woodland areas now straightaway finds villages, humans and the rural plants. No vacant area to meander and get returned to forests. Human prosperity in phrases of more lighting, transferring vehicles, noise and pollutants in addition annoy wildlife and can aggravate them extra. The fine of the forest with admire to fodder and water particularly all through pressure intervals is every other matter of problem. Such a wooded area difficulty will not be supporting the prey base to a preferred stage and the predators may also find their way to human ruled areas in search of a few clean prey. A large photo at panorama level wishes to be visualised, and controlled in a manner where the diverse additives of the larger panorama are managed in this kind of manner that every management is complimenting the natural resource conservation of which natural world is a component. Modern equipment and technology must allow us to advantage new skills, techniques of greater manufacturing from land use without being detrimental to conservation. Corridors are like roads and streets connecting human habitations and wildlife additionally need them to transport from one covered vicinity to some other and that alone can make sure the long term sustainability in their populations via genetic glide and combining. An remoted though healthful flora and fauna population will no longer remaining long because of erosion of genetic base and inbreeding a number of the individuals of the populations. Therefore, it's far required that we allow the,, right of passage“ to wildlife their intrinsic and primary right to them to move unfastened from danger and dignity. Due to expanded troubles like man-animal struggle and epidemics like Anthrax, Foot and mouth and so on., the veterinary assist is needed for remedy ill and injured animals, taking pictures and translocating trouble animals like rogues, guy-eaters, immunisation of cattle at the woodland fringe to shield natural world from communicable diseases, postmortem and forensic help and coping with camp elephants and zoo animals consisting of vitamins and health case components. A appropriate running dating between foresters/ wildlifers and veterinarians is very a good deal important to stand many animal associated issues as outlined above so that you can shop our precious natural world and the countrys' biodiversity as a whole for the peace and prosperity in the society. However, human caused pressures and exploitation in the shape of habitat destruction, local species exploitation, invasive alien species, weather exchange,

pollution have all positioned many species under amazing stress. While on one side conservation projects are on, there is also worry of such lack of flora and fauna because of human intervention and herbal calamities. This requires well timed action with the aid of instituting research on biodiversity and flora and fauna, highlighting the range of troubles for every species and concerning stakeholders to anticipate obligation for conservation. The management plans, operating plans need to play a essential position in assessing quantitative standards for each species identifying them as essential, endangered, prone and taking species relevant motion for the threatened species thru concerted programmes. The 5 12 months plans and annual plans want to work on programmes and tasks aimed at conservation of the threatened species and their habitats. It is time that we must also take note of all other species related to tigers and other large mammals. Fortunately this State has taken all precaution in opposition to diversion of forest lands for non-forestry functions. In the long lasting span of greater than 30 years diversion is minimum, that is around 4500 ha. The centrally subsidized schemes, nation schemes and shared schemes were supporting flora and fauna conservation in a massive way. Such programmes should preserve with better allocations. This is the one State in which reimbursement for damages due to natural world is paid promptly and peoples' assist evinced in conservation. Yet, man-natural world struggle is an increasing occasion almost daily with reviews of elephants injuring and damaging agricultural crops and properties and lives. Strategic action is being planned to manipulate such threats from wildlife by using developing fodder assets. While there are many programmes for conservation of tiger and its habitat and a number of other mammals, birds and reptiles, Exsitu conservation programmes are surely very a hit. The biosphere reserve programmes specifically Gulf of Mannar Biosphere Reserve, Nilgiris Biosphere Reserve, Agasthiyarmalai Biosphere Reserve are in the feather cap of the State. The State has also taken motion for conservation of butterflies and different smaller lifestyles paperwork. With landscape degree conservation taking prominence within the State, combined with studies coordination, conservation and intensive management the kingdom is poised for larger profits in wildlife control. The State is doing its great to shield all of the natural world and its habitat. There are pilot plans to contain invasive land species which can be taken into consideration reasons for habitat degradation. There are specific programmes for conservation of wetlands, marsh lands, mountains and essential ecosystems inside the State. Trees out of doors forests are geared toward conservation of herbal assets. Agroforestry, plantation forestry have become expanded attention within the State. This has enabled us to lessen the stress on forests. The State is also lucky to have some keen NGOs who're assisting the branch of conservation. Sound research recognition has enabled triumphing people's assist

for conservation. Thus, numerous promising programmes initiated with the aid of the Government and MoEF CC which have caused habitat improvement, imparting sufficient breeding grounds in blanketed regions ensuring safety of the species. The State additionally has brilliant protection equipment and with legal support have been stringent in dealing with the poachers and smugglers. The rehabilitation of habitats of tigers and forest sorts on ecosystem and species tiers have assured contiguous habitats for wildlife. The adolescents have a massive position to play in conservation. They ought to have a high-quality mind-set towards conservation. The farmers additionally have to broaden a tolerance to mind-set toward natural world.

