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TRADE ON WILD ANIMALS AND ANIMAL PRODUCTS: EFFECTIVENESS OF LAW IN INDIA A CRITICAL EVALUATION

UNDER THE GUIDANCE & SUPERVISION OF **Dr M.C. Valson**

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K. R. AZAD

PREFACE

As a Student of LL.M., who specializes in Constitutional and Administrative Law in The National University of Advanced Legal Studies, it is always interesting to know the constitutional and administrative structure of India as we all know that the Constitution is the Supreme Law of the Land, whose aim and objectives have been clearly mentioned in the Preamble. It is also clarified that no one is discriminated against before the law and everyone has their rights. When the rights are infringed, one can move to court for remedy. It is also mentioned about the Eleven Fundamental Duties where a person should abide by the duties imposed by the constitution.

One of the Fundamental Duties is "To protect and Improve the Natural Environment including Forest, Lakes, Rivers, Wildlife and to have compassion for living creatures.' As we know that everyone is equal before the law, we also should protect the environment and its species. When we harm our environment and its species, it will directly affect our self in any dangerous form.

This work is mainly depended on the Wildlife and its protection from Illegal Trade what's happening to them within India. The wildlife contains all the creatures that live in the wild. When people encroach into some other's house, what will happen, the same thing is happening when Humans kills the environment and the habitat of the wild animals. The poachers and traders play who kills the wild animals in the wildlife Sanctuaries and National Parks for huge amount of money. This work done by me is whole research on the part of illegal trade that's happening in India, Human-Animal Conflicts, the international Conventions and treaties to eradicate the illegal trade among Countries.

It requires immense hard work and dedication to protect the wild animals, and a good heart to love the environment and its species. Before reading the chapter's, one should always keep in mind that "Wild animals are less wild and more human than many humans of this world."

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LIST OF ABBREVIATIONS

| 1 | CITES | Convention on International Trade in Endangered Species of Wild Fauna and Flora | |
|----|-----------|---|--|
| 2 | CBD | Convention on Biological Diversity | |
| 3 | CCMSWA | Convention on the Conservation of Migratory Species of Wild Animals | |
| 4 | Cr. P. C. | Criminal Procedure Code | |
| 5 | CWW | Chief Wildlife Warden | |
| 6 | CWPL | China Wildlife Protection Law | |
| 7 | CRMC | Community Reserve Management Committee | |
| 8 | CMS | Convention on Migratory Species | |
| 9 | СМВ | Convention on Migratory Birds | |
| 10 | CBD | Convention on Biological Diversity | |
| 11 | СОР | Conference of the parties | |
| 12 | CSG | Crocodile Specialist Group | |
| 13 | DNA | Deoxyribonucleic acid | |
| 14 | DFO | Divisional Forest Officer | |
| 15 | ERs | Elephant Reserves | |

| 16 | ERFs | Ecologically Fragile Areas | |
|----|-------------|--|--|
| 17 | ESZs | Eco-Sensitive Zones | |
| 18 | E.U. | European Union | |
| 19 | FSI | Forest Survey of India | |
| 20 | FAO | Food and Agriculture Organisation | |
| 21 | G.O.I. | Government of India | |
| 22 | G.D.P. | Gross Domestic Product | |
| 23 | GATT | The General Agreement on Tariffs and Trade | |
| 24 | НЖС | Human-Wildlife Conflict | |
| 25 | IUCN | International Union for Conservation of Nature | |
| 26 | IBWL | Indian Board for Wild Life | |
| 27 | ICFRE | The Indian Council of Forestry Research and Education | |
| 28 | ІСРВ | International Conservation for the Protection of Birds | |
| 29 | IFAW | International Fund for Animal Welfare | |
| 30 | INTERPOL | International Criminal Police Organization | |
| 31 | ΙΑΤΑ | International Air Transport Association | |
| 32 | IWC | The International Whaling Commission | |
| 33 | ICRW | International Convention for the Regulation of Whaling | |
| 34 | J & K | Jammu and Kashmir (union territory) | |
| 35 | KAZA- TEFCA | The Kavango-Zambezi Trans-frontier Conservation Area. | |

| 36 | КМ | Kilometre | |
|----|----------|--|--|
| 37 | MoEF | The Ministry of Environment and Forests | |
| 38 | MIKE | Monitoring of Illegal Killing of Elephants | |
| 39 | MERCOSUR | The Mercado Común del Sur (Southern Common Market) | |
| 40 | NTCA | National Tiger Conservation Authority | |
| 41 | NGO | Non-government organization / Non-government organizations | |
| 42 | NEPA | National Environmental Protection Authority | |
| 43 | NPS | National Park / National Parks | |
| 44 | NWAP | National Wildlife Action Plan | |
| 45 | NBWL | National Board for Wildlife | |
| 46 | NAFTA | The North American Free Trade Agreement | |
| 47 | OIE | Office International des Epizooties | |
| 48 | РА | Protected Areas | |
| 49 | РЕ | Project Elephant | |
| 50 | PIL | Public Interest Litigation | |
| 51 | PSL | Project Snow Leopard | |
| 52 | SAN | Sanctuary / Sanctuaries | |
| 53 | SBB | State Biodiversity Boards | |
| 54 | SFM | Sustainable Forest Management | |
| 55 | SADC | The Southern African Development Community | |

| 56 | SPS | Sanitary and Phyto-sanitary Measures | |
|----|-------------|--|--|
| 57 | SSCs | Species Survival Commissions | |
| 58 | SWM | Sustainable Wildlife Management | |
| 59 | ТСР | Tiger Conservation Plan | |
| 60 | TETF | Tiger Enforcement Task Force | |
| 61 | ToR | Terms of Reference | |
| 62 | TFCA | Trans-frontier Conservation Areas | |
| 63 | ТВРА | Trans-boundary protected area | |
| 64 | T.O.I. | Times of India | |
| 65 | TRAFFIC | Trade Record Analysis of Fauna and Flora in Commerce | |
| 66 | UNCTOC | United Nations Conference on Trade and Development | |
| 67 | UNESCO | United Nations Educational, Scientific and Cultural Organization | |
| 68 | UNESCO- WHC | United Nations Educational, Scientific and Cultural Organization – World Heritage Commission | |
| 69 | U.O.I. | Union of India | |
| 70 | U.N. | United Nations | |
| 71 | U.S.A. | United States of America | |
| 72 | U.K. | United Kingdom | |
| 73 | WCCB | Wildlife Crime Control Bureau | |
| 74 | WCS | Wildlife Conservation Society | |
| 75 | WTI | The Wildlife Trust of India | |

| 76WWFThe World Wide Fund for Nature77WPSIThe Wildlife Protection Society of India78WLSWildlife Sanctuaries79WLPAThe Wildlife Protection Act of India, 197280WLDWildlife Department |
|--|
| 78 WLS Wildlife Sanctuaries 79 WLPA The Wildlife Protection Act of India, 1972 |
| 79 WLPA The Wildlife Protection Act of India, 1972 |
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| 80 WLD Wildlife Department |
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| 81 WLCCB Wildlife Crime Control Bureau |
| 82 WII Wildlife Institute of India |
| 83 WHC World Heritage Convention |
| 84 WAB Wildlife Advisory Board |
| 85 WNBR World Network of Biosphere Reserves |
| 86 WPS Wildlife Protection Solution |
| 87 WHO The World Health Organization |
| 88 WCMC World Conservation Monitoring Centre |
| 89 WTO The World Trade Organization |
| 90 MoEFCC The Ministry of Environment, Forest and Climate Change |
| 91 TCM Traditional Chinese Medicine |
| 92 SARS Severe acute respiratory syndrome |
| 93 SARS- COV 2 Severe acute respiratory syndrome coronavirus 2 |
| 94 BBC The British Broadcasting Corporation |
| 95 DRI Directorate General of Revenue Intelligence |

| 96 | CWLW | Chief Wildlife Warden | |
|-----|------------|--|--|
| 97 | IPC | The Indian Penal Code | |
| 98 | DPSP | Directive Principles Of State Policy | |
| 99 | FR | Fundamental Rights | |
| 100 | FD | Fundamental Rights | |
| 101 | BC | Anno Domini And Before Christ | |
| 102 | SQ.KM | Square Kilometre Or Square Kilometer | |
| 103 | ORS. | Another And Others | |
| 104 | L. R. | Law Reports | |
| 105 | H.C. | High Court | |
| 106 | S.C. | Supreme Court | |
| 107 | P.C. | Privy Council | |
| 108 | Cri. L. J. | Criminal Law Journal | |
| 109 | Ibid. | It Means In The Same Place. | |
| 110 | Id. | Id" Is Used Whenever A Citation Is To The Same Authority As That In Immediately Preceding Citation Within The Same Footnote | |
| 111 | Art. | Article | |
| 112 | Arts. | Articles | |
| 113 | р. | Page | |
| 114 | VOL. | Volume | |
| 115 | SUPRA | Above Or On The Upper Side. Whenever An Authority Has Been Fully Cited In Preceding Footnotes, The "Supra"Is Used. | |

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CHAPTER - 1

1. INTRODUCTION

The word "WILDLIFE" refers to any animals, butterflies, fish and aquatic or land vegetation which forms part of any habitat. The word "Trade " refers to exchange (something) for something else, typically as a commercial transaction. So when we say about the Wildlife Trade, It means the exchange of animal products derived from non-domesticated animals or even Plants , from their natural environment and which is being Traded illegally Across globally.

Wildlife can be found in all ecosystems. Deserts, forests, rain forests, plains, grasslands, other areas including the most developed urban sites, all have distinct forms of wildlife. Wildlife trade is an issue from the bottom of the heart of the tension between human development and biodiversity conservation. Every person i.e. human life is depended upon the wild animal products for trade and economy. These products from animals are used for Medicinal purpose or for construction, food and culture or for any other products that man wants for him to develop.

The involvement of thousands of Flora (Plantlife) and Fauna (Animal Life) in illegal trade provides many a good source of income. The legal trade in wildlife is overshadowed by wildlife crime and illegal trade. From the income of Producers, raw materials for business and local collectors plays an important role in the wildlife trade. Even there are millions of consumers worldwide for the goods that have been traded. It plays an undeniable role in the regional , national or at the international level. The responsible , legal benefits and the sustainable wildlife trade are largely going unnoticed throughout the world which causes many implications in the Biodiversity and environment.

The trade of wild animals illegally across the global market has increased the understanding and revealed that corruption is a key facilitator of this profitable and pervasive. An important study shows that Asia, particularly China and south-east Asian countries, are the main focal point of the supply and demands of the illegal trade animals. The corruption in wildlife plays an major role in the supply many things through or to Asia. There are many illegal acts that fall within the broad categories of things which are against the wildlife trade.

As the illegal wildlife trade is between \$10- \$20 billion USD per year, the routes may have different from America to Asia, Europe, etc. where the conservationist say that the main problem is on the part of southeast Asia. The law enforcement, weaker borders with high profit and low risk, make Key markets in China, America, and European union the most powerful in wildlife trade. The wildlife trade in Asia from the Bangkok city is the hub of illicit trade.

The trade includes demand for many products which is having high demand in Asia. In South America, a variety of rainforest animals are traded openly and in many others sort the united

states smuggle their goods as they do for drugs. The United States is a popular destination for Amazonian rainforest animals.

When we take about Indian Perspective, we can still see that there are amounts of illegal trade that are happening in every part. India is one of the world's biodiversity spots in the world where there are many endangered species lives, yet there is a lot of illegal trade happening in India and that to these endangered species. Many animals and birds are illegally traded through and from India are rare and endangered too. endangered animals are in India are also traded throughout the country for its benefits in the world market.

India has a strong legal framework and policy frame to regulate and restrict wildlife trade. Trade over 2000 species of flora and fauna is prohibited under the Wildlife (Protection) Act, 1972. To quell this trade WWF-India through TRAFFIC gives training and build capacity in its frontline apart from the government and other enforcement agencies. Still, in India, there is a lot of smuggling happening throughout the country for this the international markets have an eye on Indian soil because of its rich biodiversity and eco-friendly nature.

The Western Ghats Though it covers less than 6% of the land area of India, the Western Ghats contain more than 30% of all species found in the whole country. The Western Ghats, as such, is a trade hub for the smugglers to smuggle the wildlife activities. It's a really biodiversity-rich landscape, and so what help protect and recover endangered animals are beneficial for other wildlife and for people who depend on the natural resources of this area.

A huge global demand for our flora and fauna is a major cause for illegal wildlife trade by the ruthless cross-border smuggler. The Wildlife Crime Control Bureau stands committed to fighting this organized crime, but it is crucial to work together across various government and non-government organizations, private sector and civil society to save wildlife and its trade

With the new and emerging technologies, the implementation of HAWK (Hostile Activity Watch Kernel) was an important decision . HAWK is unique and the first of its kind service in India to be implemented for wildlife crime control. It is a real-time technology-based solution to monitor criminal networks, criminal activities and associated incidents to provide actionable intelligence to the enforcement officials to undertake preventive measures against a possible crime. HAWK has the potential to revolutionize and curb the challenge of rampant poaching across India and could prove to be a giant leap in the history of wildlife conservation and dismantling wildlife product trade.

Therefore, what effective system that can regulate the wildlife trade and their products in India should be implemented and what can one do to stop the illegal trade among wildlife is a bigger issue to sort out.

2. <u>SCOPE OF STUDY</u>

Wild Life animals trade is the biggest threat to wildlife preservation. One of the most powerful motives for the exploitation of animal species is income production through trade, especially in poor countries lacking other major resources. The preservation of Wildlife is a matter of Public Interest. Art. **51 A (g) of the Constitution of India** says It is the duty of every citizen to protect & improve the natural environment, including lakes rivers, and wildlife, and to have compassion for living creatures.

As the fourth largest illegal global trade after narcotics, counterfeiting, and human trafficking illegal wildlife trade makes billions of dollars in the world market. The uncontrolled poaching of wild animals and its products for illegal trade are having some motive, even the dead and living animals are also traded for many benefits. With the highly flourishing illegal trade of wild animals, whether the so-called executors are biased or impelled to do something which disregards blatant for national laws.

As per the as per recent available records of Wildlife Crime Control Board (WCCB), over 9,253 poachers have been arrested in wildlife poaching across India during 2012-2018. The 141 cases of poaching of tigers were also reported. Along with the smuggling and poaching, slaying of rare and endangered wildlife species are also happing throughout the country.

Recently On March 25, 2019, Among the chocolates and gift items in his luggage was an African horn pit viper seized along with 2 rhinoceros iguana, 3 rock iguanas, 22 Egyptian tortoises, 4 blue-tongued skinks, and 3 green tree frogs. The Indian star tortoise is now the most trafficked tortoise worldwide as it is in high demand as a pet.

Recent seizures in Chennai seem to suggest the presence of a well-entrenched smuggling network in the city. In one of the largest hauls, 660 kg of sea horses, pipefish, stingray etc. in February this year. The consignment was valued at Rs 7 crore in the international market.

In October last year, 490-star tortoises seized at Kasimedu fishing harbour in Chennai were meant to be smuggled through Thai Air cargo.

Through these, we can assume that the law has many loopholes Such that the crime syndicates are easily escaping through it. And also a study is required To find out ineffectiveness and unfairness on the part of executors who protects the wildlife its trade and also other activities that are connected with it. Such ineffectiveness can also attract the younger generations too.

3. STATEMENT OF PROBLEM

India is one of the major hubs for the smugglers and traffickers for the illegal wildlife animal trade and poaching activities. These activities threaten not only iconic species and erodes global biodiversity but also compromises local, national and global security. The hunting for trade and pet collection is the second greatest driver, after habitat loss, for the declining populations of many endangered species.

The problems like Ineffective implementation of the law by enforcers who is also biased, allowing such illegal wildlife trade and poaching in India would attract the younger generations as well as it will make an imbalance in the society. Therefore the enforcers should be more ambitious and keen towards the implementation of the laws. The present study intends to evaluate the effectiveness of law relating to illegal wildlife trade and animal products.

4. <u>RESEARCH METHODOLOGY</u>

The research methodology adopted is both Doctrinal & Non-Doctrinal. The main method used here is by conducting **Empirical research**; in which the main sources of materials are primary data. The Study is basically that describe what is happening based on direct observation, focus group discussions, and in-depth interviews. This kind of survey study can describe the *who, what*, and *where* of a phenomenon.

Further, in order to understand and study, particular research also relies on the Doctrinal method for that Secondary data is laid on . Research wants to find out how effective the law is when it is related to trade among wild animals and its products in India. Also the ineffectiveness on the part of Executors of wildlife protection , the younger generations attraction towards illegal trade and to study the loopholes in the law. The methodology in which the research is done is to understand the protection of rights towards wild animals from their illegal trades.

5. <u>HYPOTHESIS</u>

- Trade relating to wild animals and animals products is increasing due to lack of proper implementation of law in India.
- There are many loopholes in the current wildlife legislation to be filled with adequate provisions.

6. <u>OBJECTIVES</u>

- To find out the effectiveness of law relating to the trade of wild animals and its products in India.
- To examine if the executors who protect the wildlife failed to curb the illegal wildlife trade.
- To examine whether the illegal trade on wild animals attracts the younger Generations.
- ◆ To analyse the Judicial and constitutional aspects of the law relating to wildlife trade.
- To analyse the International perspective and conventions about the illegal wildlife trade.

7. <u>RESEARCH QUESTIONS</u>

- 1. Whether the existing wildlife laws in India having any loopholes in which the wildlife smugglers take advantage of ?
- 2. Whether there is a snag on the part of administrators while executing laws regulated to trade among wild animals ?
- 3. What are the judicial & Constitutional approaches in India towards the illegal wildlife trade ?
- 4. Whether an ineffective system attracts the younger generation in India to such crimes.

8. TENTATIVE CHAPTERIZATION

Chapter 1 : Introduction

- Chapter 2 : Concept, Importance of illegal trade of wild animals & products and the efficacy of wildlife conservation and biodiversity in India
- Chapter 3 : Wildlife management : The Rare and Endangered species with special reference to Man-Animals conflict
- Chapter 4 : International Legal structure and conventions for the protection of wildlife trade and its products : its impact in India
- Chapter 5 : The predicament of illegal Wildlife trade in India : Through the lens of statistical data.
- Chapter 6 : The Judicial and constitutional aspects of the law relating to wildlife trade in India.
- Chapter 7 : Conclusion And Recommendations

9 . <u>REVIEW OF LITERATURE</u>

- Empirical Study on Implementation of Wildlife Protection Laws in India(Final Report)By Symbiosis Law School, Noida.
- A Manual on Wildlife Species in trade in India (Source: Wildlife Crime Control Bureau)
- ➤ World Wildlife Crime Report Trafficking in protected species (Source: UNODC)
- Wildlife law- cases statutes & notification- Ritwick Dutta
- ➢ Wildlife Protection Act, 1972.
- Handbook of Wildlife Enforcement in India.

<u>CHAPTER – 2</u>

CONCEPT OF WILDLIFE

"Wildlife means, Any animals, bees, butterflies, fish or aquatic animals or reptiles or land vegetation which forms part of any habitat".¹

Wildlife generally refers to undomesticated animal species, but it has included all animals that evolve and live in the wild in an environment without human introduction. Wildlife can be present in all habitats. Deserts, forests, rainforests, and other areas all have distinct wildlife types, including urban areas that are most developed. In popular culture, Scientists argued that wildlife is affected by human activities, but in reality, wildlife refers to the animals which are untouched by social factors

The rich biodiversity of the world is protected throughout the country in over 120 national parks, 18 bio-reserves and over 500 wildlife sanctuaries. India has some of the most biodiverse areas in the world and has four of the world's 36 biodiversity hotspots. The Western Ghats, the Himalayas of the East, Indo-Burma and Sundarbans. The conservation of rare and endangered endemic species includes wildlife management. India is one of the 17 mega-diverse countries.

The subsequent movement toward and collision with Peninsular India initiated a mass exchange of species. However, 20 million years ago, volcanism and climate change caused the extinction of many endemic Indian forms. India introduced the 1972 Wildlife Protection Act and the Tiger Plan to protect vital habitat; additional federal protections were enacted in the 1980sIndia now has 18 biosphere reserves, 10 of which are part of the World Biosphere Reserve Network, plus 515 wildlife sanctuaries; 26 wetlands are listed under the Ramsar Convention.

The wildlife is being killed at a breakneck pace to the utter dismay of the whole world. For this devastation, two explanations may be cited: (a) natural causes; and (b) human reasons. While these two forms of reasons are responsible for wildlife loss, logical reasons have proven to be less detrimental than social rights. That's because naturally occurring factors slowly destroy wildlife. Nearly 70 million years ago, wild animals (or species) were first killed by natural elements. Approximately 120 species of mammals become extinct in the present times (starting from the seventeenth century to the present).

The world today, particularly developing countries, including India, is facing problems of overpopulation, poverty and Illiteracy. The human population is experiencing tremendous growth at a very rapid pace, resulting in the depletion of natural resources on a daily basis. The land and natural resources are limited, but there are increasing and increasing numbers of

¹ Section 2 (37) Wild Life (Protection) Act, 1972

mouths to feed. Wildlife is also an intricate part of our ecosystem as the green plants and animals are members of the trophic level² in which man is at the top.

The famous *Silent valley case*³ has illustrated the issue of protection conservation of our rich and unique biodiversity of rare and valuable flora and fauna for the benefit of the nation and prosperity, including the endangered species like the lion-tailed macaque, as they are national assets. The other animals include the Asian elephant, Asiatic lion, Bengal tiger, Indian rhinoceros, mugger crocodile, and white-rumped Indian vulture, which suffered a nearextinction from ingestion of diclofenac⁴-treated cattle transport. Hundred of species have become extinct, and many others are on the verge of extinction as they are listed as endangered species. The disappearance of a species is an irreversible loss of a potential natural resource.

In the famous case of *State of Bihar v. Murad Ali khan*,⁵ the supreme court of India cautioned that the ecological balance in nature is based on the fundamental concept that environment is 'a series of complex biotic communities of which man is an interdependent part' and that it should not be given to a part to trespass and diminish the whole. The most significant single factor in the depletion of the wealth of animal life in nature has been the 'civilised man' operating directly through excessive commercial hunting or , more disastrously, indirectly through invading or destroying natural habitat.

The Indian constitution, under Article 48-A,⁶ has proved that "It is the directive principle of state policy that to protect, improve and safeguard the forest and wildlife of the country". It is directive and a constitutional pointer to the "state". further list III of scheduled VII provides the centre and state both can make laws. List II of the seventh schedule also empowers the State to make laws " to preserve, protect and improve the livestock and prevent animal diseases."⁷ and on fisheries⁸.

In the exercise of the above powers, the Indian parliament also passed some significant acts like :

- 1. Wild Life (Protection) Act, 1972
- 2. Prevention of cruelty to Animals Act, 1960
- 3. Biological Diversity Act, 2002

² Means, the level of energy is transferred from one organism to another.

³ Society for protection of silent valley v. Union of india, op nos. 2949 and 2025 of `979, decided on 2-1-1980(ker)

⁴ used to treat pain and <u>inflammatory diseases</u> such as gout.

⁵ (1988) 4 SCC 655, 660-6I: 1989 SCC (Cri) 27.

⁶ Incorporated in 1976

⁷ Entry 15

⁸ Entry 21

It is important to note that after making efforts to protect biodiversity, promising results have been achieved. The government's efforts should be combined with the process of enlightening all sections of Indian society to preserve biodiversity. The quiet, harmless wild animals will have to be guarded against humans and poachers.

WILDLIFE CONSERVATION

Conservation of wildlife is the practice of protecting wildlife species and their habitats to prevent the extinction of species. Habitat destruction / degradation / fragmentation, over-exploitation, poaching, hunting, pollution and climate change are significant threats to wildlife. Poaching for illegal trade in wildlife is a significant threat to some species, particularly those at risk whose status makes them economically valuable. These animals include many large mammals such as elephants from Africa, lions, and rhinoceros. [Traded separately for their tusks, skins and horns]. Less well-known poaching targets include the harvesting of protected plants and animals for souvenirs, meat, hides, pets and more; as poachers prefer to target threatened and endangered species, poaching already causes small populations to decline further.

India has been leading wildlife conservation activity with the creation of Jim Corbett National Park since the early 1930s. It saw man's catastrophic reaction to wildlife and gave up hunting while dedicating his life to wildlife conservation, especially Tigers. Wildlife is generally known as flora and fauna, meaning plants and animals, respectively, in a broad sense of language. India has kept in its numerous topographies and climates a multitude of animals. A significant step towards restoring a common species dawned with a project tiger launched under the 1972 Wildlife Protection Act as per the referendum. Since then, populations of endangered species have seen dramatic improvements in numbers, and efforts are being continued to prevent numerous harmful activities that impede wildlife development.

The project Tiger in the 1970s and the Project Elephant in 1992 both attracted attention globally. India became a member of all those major international conservation treaties related to habitat, species and environment like

- 1. The Ramsar Convention, 1971
- 2. Convention on International Trade in Endangered Species (CITES) 1973.
- 3. Convention on Migratory Species, 1979
- 4. Convention on Biological Diversity, 1992

Today, besides 50 Tiger reserves which are governed by Project Tiger, administered by National Tiger Conservation Authority (NTCA). 50 Tiger reserves and all tiger population makes India 80% of the tigers in the world, and 32 Elephant Reserves in India including 668 protected areas with the Environmental Protection Act, 1986 makes an earnest effort to preserve wildlife habitats and wildlife corridors.

When the Indian markets are opened, the process of globalization in which the country has made significant progress in achieving higher Gross Domestic Process (GDP). The disturbing developments about the dilution of conservation efforts on the part of governance on one side and on the other side significant increase in the death toll of protected species, combined with intervention within the protected areas came into force.

The last 20 years, in attempt called "development lobby "to establish practices like "green blockade" for instance, put a particular restriction for development projects in and around "protected areas "out of 173 projects were listed for clearance from 24 states, 130 projects were cleared, but eventually, the Honorable Supreme court of India struck down on the grounds that the current constitution of National Board for Wildlife (NBWL) is a violation of the law.

The 48 projects clearance in 2015 that will if undertaken, convert 2,144 hectares of forest land with the protected area. the globally the population has been halved in the past 40 years. The biggest recorded threat to biodiversity globally comes from the impact of habitat loss and degradation. The freshwater species population has suffered a 76% decline an average loss almost double that of land and marine species. The main threat to freshwater species is habitat loss and fragmentation, pollution and invasive species.

ROLE OF NGO

the destruction of the natural forests and the loss of biological diversity is one of today's most urgent global environmental issues. In both the developed and in developing countries, the Non- Governmental organizations (NGOs) has experienced massive growth since the mid-1970s. they are playing an increasing role in influencing conservation and environmental issues on both globally and at the national level. NGO is defined (technical term) by the world bank as "a private organization that pursue activities to relieve suffering, promote the interest of poor, protect the environment, provide basic social services, or undertake community development."

NGOs nowadays plays a significant role in the various fields with respect to environmental protection and wildlife and biodiversity conservation. NGOs play a vital role all over the world. NGOs also started initiating field projects and concentrated on the practical application of conservation philosophy. The socio-ecological NGOs, which were mainly founded at the time of preparations for Rio Conference, have entered as actors of particular importance and interest. These NGOs have discovered that the local people's issues and consequently, the number of projects in protected areas.

In India, which has experienced a severe threat of deforestation during the last century and it anticipated that by the year 2035, India would be almost devoid of forests. NGOs have gained much more popularity in various parts of the country. Its initiatives to conserve the biodiversity such as establishing forest reserves and mobilization of indigenous organizations. There is a claim that NGOs have been working to create dependency while mobilizing indigenous organizations. The emergence of the NGOs represents an organized response by civil society, especially in those areas in which the states have either failed to reach or done so inadequately. the NGOs have been taking the issues of environmental issues, outside the board spheres of popular media and educational system.

There are several non-governmental bodies which have stepped up to the demands of wildlife conservation in India. As far as the people in India nowadays are against the poaching, trade, encroachment into forest land and destruction of habitats, the volunteer groups are taking extreme care and initiatives towards maintaining undisturbed Environments for the animals and plants to flourish.

Some of the renowned NGOs in India include Rhino Foundation for nature in Assam, Wildlife Society of Orissa, Friends of forest in Maharashtra, Nature's beckon in Assam, northeastern In West Bengal the society for the preservation of wildlife and nature, In Amaravati in Maharashtra, Nature conservation society of India has some of the world's incredible biodiversity. Nevertheless, the wildlife in India is increasingly receding inward due to the overpopulation and human impact on the environment in recent years. It is a fact that human beings and nature need to coexist in order to sustain human life, making it extremely important for each individual to take responsibility for quality and aid in its protection and development.

SOME STEPS IN THE DIRECTION OF CONSERVATION OF WILDLIFE COULD BE AS FOLLOWS:

- 1. surveying and collecting all wildlife information, in particular, their number and growth.
- 2. Habitat protection through forest protection.
- 3. To fix the areas of their natural habitat.
- 4. To protect wildlife against pollution and natural hazards.
- 5. To impose comprehensive restrictions on wildlife hunting and capture.
- 6. To impose restrictions on the export and import of wildlife products and to tax severely penalties on those who engage in such activity.
- 7. Developing game sanctuaries for particular species or for the general life of the world.
- 8. Special arrangements should be made to protect those very few species.
- 9. To establish a general awareness of wildlife protection at national and international level.
- 10. The implementation by trained personnel of a wildlife management program.

India is an excellent example of a number of steps being taken to protect biodiversity. It is a nation with diverse biodiversity, where more than 500 wildlife types are already extinct. According to an estimate, about 200 wildlife species and birds are already extinct in India, and another 2,500 are on the brink of extinction. Some of them are blackbuck, chinkara, wolf,

swamp deer, nilgai, Indian gazelle, antelope, tiger, rhinos, Gir lion, crocodile, mountain quail, etc. The state and NGOs in India are taking a keen interest in wildlife protection. The 1972 Wild Life Protection Act contains several provisions for wildlife conservation.

India has four of the world's thirty-five biodiversity hotspots or precious houses, as well as the Himalayas. Since India consists of several unusual animals, it is necessary to preserve these types of wildlife in the state. Tourism also has an effect on the conservation of wildlife. India has invested in wildlife through the construction of wildlife reserves and national parks. Because of this, tourists from around the globe and even locals are visiting Indian to explore the amazing wildlife sanctuaries. Another effect is on Aboriginal people who rely on massive forest. Local people's rights to bread and butter have been protected by efforts to protect vegetation.

The Amendment Act, 2000 has also introduced a new method of conservation in cooperation with the local people of that area. As per section $36\text{-}A^9$, The State Government can declare a region, in particular areas adjacent to national parks and sanctuaries and cities connected by two protected areas, as a conservation reserve in consultation with the local community. To manage such a city, the state government shall constitute a CRMC¹⁰ to advise CWW¹¹ to conserve, manage and maintain the conservation reserve.

When an individual or a community has come up to conserve wildlife and its habitat, the state government may also declare it as a community for the protection of flora and fauna and traditional or cultural conservation values and practices. Further, the state government shall constitute a CRMC¹² to conserve, maintain and manage such community reserve. This committee shall be the competent authority to prepare and implement the management plan for the committee reserve and to take steps to ensure the protection of wildlife and its habitat in reserve. It shall regulate its own procedure (s. 36-D). The protected area¹³ under section 18 provides that By notification, a State Government can declare its intention to designate an area other than an area comprising any forest reserve or any of its territorial waters as a sanctuary if it considers that such an area is of adequate, ecological, faunal, natural or zoological significance, for the purpose f protecting, propagating or developing wildlife or its environment¹⁴.

Taking into account the recent human encroachment, the Indian Government has taken successful steps to protect the country's biodiversity, including the 1972 Wildlife Protection Act, which bans the trade of rare and endangered species among the most commendable initiatives. This is not, however, the only laudatory measure taken by the Government of

⁹ Incorporated by the Amendment Act, 2002

¹⁰ Conservation reserve management committe

¹¹ Chief wildlife warden

¹² community reserve management committee

¹³ Subs. By the amendment Act, 2002

¹⁴ Tarun bharat sangh v. union of India, 1992 supp (2) SCC 448: AIR 1992 SC 514

India (GOI), but there is nothing to be said about the schemes and projects that have helped the country maintain its abundant wildlife.

Today, wildlife conservation efforts are being made in India to preserve this natural wealth. In India, numerous wildlife conservation projects have been undertaken to protect the subcontinent's abundant wildlife, both at government and individual level.In India, biodiversity faces the risk of extinction due to illegal trade, unchecked hunting, pollution, habitat loss and deforestation. In contrast, the biodiversity that is declining has excellent economic and scientific value and disturbs the ecological balance. Therefore, the need is definitely wildlife protection in India.

THREATS TO WILDLIFE

- 1. More Number of Animals, in a particular area, one of the main reasons for India's depleting wildlife population. India's wildlife sanctuaries have become overcrowded, and their capacity has deteriorated to a considerable degree.
- 2. Tourism is growing day by day in the country's national parks. The popularity of ecotourism and adventure tourism is one of the reasons for this. In addition to causing damage to the natural habitat of birds and animals, this has led to an increase in traffic emissions and wildlife road deaths.
- 3. The parks have experienced a rise in wildfires with the increase in tourism. More often than not, innocent campfires started by visitors have led to the threat of wildfires. Not only do these fires kill animals, but they also destroy their natural habitat.
- 4. The release into the water bodies of chemicals and other toxic effluents has contributed to water poisoning. There is a lethal danger to the animals and birds drinking this water. Even the fish population living in such bodies of water is declining at a rapid pace.
- 5. Today's climate change in the world impacts not only humans but also wildlife. The animals ' natural habitat and migration patterns are undergoing disruption trends.
- 6. Last but not least, India's biodiversity has been plagued by the threat of poaching for years. The risk of poaching has not been wholly eliminated even after the establishment of wildlife sanctuaries and national parks.

In order to protect the biodiversity within it, habitat preservation is the process of preserving an ecosystem. This is sometimes better to focus on a single species, particularly if the species involved have precise requirements for habitat and resides in a habitat with many other endangered species. Conservation of biodiversity is usually done by setting aside protected areas such as national parks and reserves of nature. It can still be controlled and protected even if an area is not turned into a park or reserve.

Genetic conservation studies genetic anomalies that influence a species ' survival. Some conservation efforts focus on ensuring population growth, but genetic diversity also has a significant impact on the survival of species. High genetic diversity increases durability as it means a more exceptional ability to adapt to future changes in the environment. Meanwhile, effects associated with low genetic diversity, such as inbreeding depression and loss of gene drift diversity, often decrease the survival of species by reducing the ability of the species to adapt or increasing the frequency of genetic problems. Although not always the case, because their genetic diversity is shallow, some species are under threat. As such, the safest preservation measure would be to restore their genetic diversity.

CONCEPT OF ILLEGAL WILDLIFE TRADE

Wildlife trade refers to trade in products derived from non-domesticated animals or plants that are usually extracted from or raised under controlled conditions from their natural environment. It may involve trafficking in living or dead people, tissues such as skins, bones or meat, or other products. Illegal trade in wildlife is widespread and is one of the significant unlawful economic activities comparable to drug and arms trafficking . Wildlife trade is a severe problem of conservation, which is having a negative impact on many wildlife and its populations, as it can be one of the significant threats to vertebrate species ' survival.

The use of wildlife is a general term for all wildlife uses, including ceremonial and religious purposes, bush meat use, and various forms of trade. Usually, the use of wildlife is associated with hunting or poaching. Trade-in wildlife can be distinguished in legal and illegal trade, and both can have domestic (local or national) or international markets, but they may often be linked to each other.

Interpol has estimated an annual range of \$10 billion to \$20 billion in illegal wildlife trade. Although trade is global, with routes stretching across all continents, conservationists say the issue in Southeast Asia is the most severe. There, trade ties to key markets in China, the U.S., and the European Union; lax law enforcement; weak border controls; and perception of high profit and low risk contribute to large-scale trade in wildlife.

Illegal trade in wildlife generates trillions of dollars worldwide a year. It is next to drug trafficking the second most lucrative illicit sector trade. Notwithstanding, international and local laws designed to crack down on trade, live animals and animal parts, often endangered or endangered species, are sold across many regions of the world in open-air markets. Growing demand, leaky boundaries and big money attraction make it a lucrative business. Most of the animals that are involved in the trade end up as trophies, or in restaurants with specialities. Some are used in traditional medicines in Asia.

Among developing countries, this kind of trade is most common. Asia is one of the regions most affected by this sector. Especially in the Himalayan region, China is rich in biodiversity,

and local people have taken advantage of the resources around it. China has developed a consciousness of conservation quite rapidly and for these national treasures has lists of state and local protection. Notwithstanding the enforcement of the China Wildlife Protection Law (CWPL), the Himalayan region, in particular, suffers from illegal trade and hunting.

It has to be noted that "poaching " of wildlife is an organized illicit international activity which generates a massive amount of money. Moreover, India is a signatory to both the UN CITES¹⁵

and UN CTOC¹⁶. Therefore, wildlife is under the threat of almost extinction, mainly due to organized poaching, its international links and due to destruction of habitat. Thus, the Act has been passed "to ensure the ecological and environmental security of the country."¹⁷.

The newly passed wildlife (protection) Amendment Act, 2002 als many widespread changes as well as a new chapter has been incorporated as Chapter-VI-A to deal with the forfeiture of property derived from illegal hunting and trading.

NATURE OF WILDLIFE TRADE

The Central motivating factor for wildlife traders is financial, ranging through efforts to secure basic survival and daily living. Small-scale production of regional income for large profit-oriented companies such as marine fisheries and forestry firms. Middle man with uncountable numbers may involve in Wildlife trade between wildlife owners and the ultimate customers, including experts specializing in processing, handling, transportation, taxidermy, and conservation.

A large part of the deal is meant for international markets and had a very high demand in India. In India, wild trade-in resources have always been pivotal in the livelihood of a large number of people, primarily the tribal's. Communities living around forests areas have been dependent on natural resources for their survival. They have engaged in the trade of forest produce either for cash or on a barter system to be able to meet their household requirements. However, such business was mostly sustainable and did not severely impact the survival of the plant and animal species.

The scenario has changed. Driven by an overall human population increase and related consumer demand, including modernized collection, harvesting and transport means, the need within the people involved within the trade has become commercialized. When illegal trade has developed well into a well-organized process. Harvesters, hunters and poachers are at the centre of activity, often living in rural areas without direct access to distribution channels.

¹⁵ Conventions on International trade in Endangered species

¹⁶ Convention against Transnational Organised crime

¹⁷ T.N. Godaavarman Thirumulpad v. Union of India (2012) 4 SCC 362

They rely on visiting buyers to markets their goods. In addition, there is numerous middleman who runs a well-organized trade to transport and market illegal wildlife products.

When in the case of volume and value of the deal, the wildlife trade is one of the most significant traded goods around the world, with China being the largest market followed by essential markets in the U.S.A¹⁸ and the EU¹⁹. The E.U. tops the list of major importer by the value for many wild animals and its products. The illegal wildlife trade in the EU alone was worth an estimated EUR 93 Billion²⁰.

WHY ILLEGAL WILDLIFE TRADE A PROBLEM

The illegal trade of animals and products has been flourishing in the market, and it has been growing into the global menace. Prohibit the traders of unlawful activities in wildlife, and there are many attempts done which subsequently failed from killing more and more animals, some of them are on the verge of extinction. Despite having many initiatives to boost the population of the endangered species of animals, their number has then also started to decline.

Even after knowing that the countries have laws and punishments, many people across the globe still trade wildlife and its products, which has become a significant problem in the world. this problem is existing because of that these animals and its products have a huge demand in the international markets, in which people can make a considerable amount of money which making opportunities in the people to make the trade and kill wild animals.

The legal practice of trading of animals to conserve and repopulate the species such as in the Zoos and National parks it is often engaged in legal wildlife trade. The illegal wildlife trade is a practice of trading animals and plants in order to make a profit in which many of the animals are harmed and killed for getting their body parts.

The gravity of the illegal wildlife trade is that the international wildlife trading happens, i.e. for example, in South African country where it has witnessed the death of 1,300 Rhinos due to poaching. It has believed that more than 95% of the elephants have been killed in the last 100 years, and in each year it takes 33,000 elephants. The increasing price in the international markets has boosting humans to poach the animal during the previous two years.

Before trying to understand the menace of the wildlife trade and trafficking first, we should understand the root cause of it. The reasons for the wildlife trade is ;

1. Not Enough Regulations to ban the wildlife trading

There are not enough laws or strict laws to prohibit wildlife trading makes each and every person allowing to enter into the trading industry. The illegal traders, due to the weak laws,

¹⁸ United states of America

¹⁹ European Union

²⁰ According to 2005 statistics

getaway without being arrested. The punishments for such crimes are too lenient compared to the heinous crimes that have been committed. In India, fines range from Rs. 10,000/- Rs. 25,000/- and 07-10 years of imprisonment but most of the people are acquitted because of weak prosecution. The cases in the last three years are lenient and conviction rate for registered cases during the previous three years happened in only 10% of the cases.

2. Harvesting a Major Problem

In order to maintain natural balance among particular animals species, the species which is overpopulated has been killed. The international illegal wildlife trade indicates that the informal harvesting practices can allow internationally protected wildlife which is to be illegally introduced into commercial streams. The killing of such particular species may become extinct or can become endangered. The execution off such specific species maybe just like eating loads of sugar in order to increase the sugar level in the body, despite being diabetic. Also, the majority of the animals reaches in the illegal trade in foreign markets. The illicit harvesting deer in the U.S.A is another major problem with more and more people participating in it.

3. Transfer of illegal trade items into legal Markets

The thing is that when people start to get more money internationally, people begin to kill animals and makes the trade and which is illegal also. When the unlawful business happens, we think that the deal occurs only to the illicit markets internationally, but the situation is different than when the illegal trade also happens the products and animals that are traded will go into the legal markets too. this result in more poaching in animals. The country UK is not only the country of transit of illegal wildlife trade but also a significant country of destination, and illicit wildlife trade isn't just something that happens where animals live.

4. Huge Money Offer

Due to the consistent fuel for poaching industry, it is very greed that one will make money by doing anything illegally. The fetch of vast European and south-east Asian countries where the market price is very high people often engage in illegal activities to make a massive amount of money. In the year 2014, the cost of Rhinos Horns in the black market was around \$ 60,000

(around INR 40 Lakhs) per kilogram, but some markets makes \$100,000 kilogram has been charged.

5. Undocumented species being traded legally

Despite the fact that verge of extinction of some species is being hunted commercially on a large scale because of unclear documentation such as the fishing for Abalone in Africa, Whales in Antarctica. There are like tens of thousands of animals without any document, and such species are traded legally in the international markets contrary to the national laws.

Much of the species that are undocumented may be of species that are in the verge of extinction nor Endangered. Ther are million of species where the international trade has not been regulated in such cases the traders start to trade the animals, through which they can make millions of money as the legislature allows them to purchase those animals , even when harvested or exported contrary to national laws.

6. The Diverse Demand And Usage Adds To The Problem

The diverse demand in the international and national markets makes it a problem that the illegal poachers kills the animals and trades it. It's not only money that makes it an organized crime but also the demand in the markets makes people do the evil and also due to the lack of strict laws in the international and national laws people can export and import the products throughout the world. The rights from being used in medicines to make shoes, carpets and rug, the usage of wildlife skins etc. had made the trade so diverse that it's sometimes hard to tackle it on such a big scale. There are records which says that in just one year, there are over 100 million tonnes of fish and live birds and 4,40,000 tonnes of medicinal plants have been traded despite the laws in India. In India, trade like Mongoose Hair, Rhino horns, snake skins, tigers, Leopards claws, bones, skins whiskers, Elephant tusks, Turtle shells, Medicinal Plants, timber and caged birds such as Parakeets, Mynas, Munias etc. Majority of these illegally obtained parts are for the international markets and has no direct demand in India.

WILDLIFE TRAFFICKING : A GLOBAL CONCERN

In many cases, the illegal trade for wildlife has led to over-exploitation of the targeted species to the point where these species 'very survival is becoming difficult. The aspect has been well-publicized in the case of Tigers, rhinos, elephants, star tortoises and others. Overharvesting for trade has also effected populations of many freshwater and marine species such as otters, freshwater and marine turtles, sharks tuna etc. further, the illegal trade indirectly threatens the livelihoods of a large part of our human population who are dependent on wildlife products from forests and coastal biomes to sustain them. These inhabitants not only depends on the resources from the wild for food but also for their livelihood and health care. Therefore, it is crucial that these wildlife resources are sustainably managed and protected in accordance with the law.

As we said, Corruption is also a critical factor in promoting illegal trade in wildlife. This covers bribes to shipping companies ' customs officials, law enforcement officers and people, and government ministers ' political immunity to turn a blind eye. The 1980s Ivory Wars itself says that there are many Corrupt officials in relevant government ministries, especially at ports, airports and borders, are crucial links in routes that allow high-value, but illegal, wildlife products to end-user markets.

Wildlife trafficking, the illicit trade of animals and goods of animals, is a growing concern with cost estimates ranging from US\$ 10 billion to US\$ 20 billion worldwide per year. This correlates to about 5% of the international drug market. Nevertheless, there is no distinction between resources allocated to fight this crime. Although more extensive attention is beginning to be given to this issue, the application of forensic techniques remains primarily in the fields of research and education. A number of international networks, including INTERPOL²¹ and TRAFFIC²², have now been created. Such networks, however, have not been significantly funded, but rely primarily on public donations and contributions from members.

The rising demand for wildlife products has driven many iconic species toward the precipice of extinction, including lions, rhinos, elephant and tigers, as well as many lesser-known species. For both wildlife and people, especially local communities, this is a global crisis; it threatens equity within and between nations, sustainable consumption and development, ecological health, human health, and social stability. Poaching and illegal wildlife trade have a negative impact: biodiversity resilience; personal protection across countries and regions; and national wealth and countries ' ability to create jobs, reduce poverty through tourism, and provide sustainable livelihoods through community-based management of natural resources. To take one example, The extinction of elephants and rhinos threatens tourism employment and livelihoods. Tourists are visiting parks to see elephants which are essential to Eastern and Southern African economies, with tourism dollars accounting for more than 11% of GDP in countries like Kenya, Tanzania, and Zimbabwe. Such tourism firms will fail without elephants.

The new estimate has estimated the loss of African elephants in the last three years at 100,000. That means around 96 elephants a day, with only 400,000 left in the wild across Africa. Every year, despite the ban on ivory trade 20 years ago, hundreds, if not thousands, of wild elephants continue to fall victim to poachers across their range of distribution. A recently published report revealed that illegal hunting could lead the elephant to extinction in just 15 years across much of Africa, even as the survival of relatively fewer Asian elephants continues to be threatened. Poaching can have severe consequences for Asian elephants that are already endangered by habitat loss, wars, and accidental deaths in India's railway tracks. Unlike the African species, only males (although not all) carry tusks in Asian elephants; in Asian elephant populations, selective male hunting creates gender imbalances. The IFAW²³, the affiliate of WTI²⁴, calls for immediate action to protect elephants. This encourages the EU, and all CITES Parties to stop supporting plans for one-off ivory purchases, legitimate ivory trade and down-listing of elephants.

Wildlife trade offers pathways for disease transmission at rates that not only cause outbreaks of human disease, but also endanger animals, international business, rural livelihoods, indigenous populations of wildlife, and ecosystem health²⁵. Wildlife trade

²¹ Wildlife Crime Working Group

⁽http://www.interpol.int/public/EnvironmentalCrime/Wildlife)

²² (Wildlife Trade Monitoring Network) (www.traffic.org)

²³ International Fund for Animal Welfare (IFAW – www.ifaw.org)

²⁴ Wildlife Trust of India

²⁵https://www.ncbi.nlm.nih.gov

events have caused hundreds of billions of dollars in global economic harm, and these points give control opportunities to optimize the impact of regulatory decisions as wildlife marketing functions as a system of large hubs-free networks. As each animal is traded, hunters, middle marketers and customers undergo some kind of contact. Other wildlife in the trade is briefly released, and in villages and market areas, domestic animals and wild scavengers eat the remains and waste from the wildlife traded and possibly traded.

Such aggregate numbers suggest that annual wildlife trade results in at least some multiple of 1 billion direct and indirect interactions between wildlife, humans, and domestic animals. The increasingly global reach of this exchange, combined with rapid industrial transport and the fact that markets function as network hubs rather than consumer endpoints, dramatically increase the movement and possible cross-species transmission of the infectious agents that are naturally transmitted by every animal.

It is clear that wildlife trafficking requires a global response that fits well within the UN General Assembly's governance regime faced with a growing attack on the cultural and natural resources of nations around the globe, an increasing number of UN Member States have called for urgent action to put an end to poaching and trafficking in wildlife. A significant challenge for preventing smuggling, in addition to rampant corruption, is the lack of adequate law enforcement across the trade chain: on the ground where the killing takes place, through the transit countries, and on to the final consumer markets for the destination.

The study indicates that the worldwide impacts of the illegal wildlife trade and the investigating links between the illicit trade of wildlife products and the erosion of national institution an effected in the areas, countries, national and transnational security threats and role of armed non-state actors in civil conflicts. For the Demand in the market for the Ivory and Horns, the Elephant and the Rhinos have been poached around the world

INTERNET A TOOL FOR ILLEGAL TRADE

The use of computers has grown exponentially over the last decade. It has become an integral part of human lives. Each and every person are using the internet today. With a little click on your mouse, people can communicate, see, transfer information, engage in commerce or share any mutual interest each other from a long distance. Not only for the god but also for the wrong ideas internet can be used for such as crimes. The commercialization of the web, like any other technology, has changed the environment in which the crime operates. Due to more rapid and secure communication in the cyberspace, the internet certainly not lost on criminal networks involved called the transit crimes but also the organized crimes that have been a significant role in it.

The wildlife trade is among also one of the significant business profits through the internet which the wildlife traffickers do. The meaning which states that, illegal occupation of any wild plants or animals (live specimens, dead parts and derivative products) from the moment they are capture, breeding or harvesting to purchase by the final buyer. The internet offers you to carry out the wild trafficking and to give a more comprehensive and precise description of how actor involved in this criminal activity behave in cyberspace.

A recent study by TRAFFIC²⁶ says that the growth of trade in wildlife products o the internet have been increased, there are as many cases has been put on the internet as advertisements for the illegal wildlife trade and products which are made auction o several sites serving mainland like china, Hong Kong, Taiwan, India, UK, USA, etc. over the past decade. It brought the commercial interests of the buyers and sellers globally through the internet. Buyers and sellers can now reach out with fast-selling according to buyers requirements.

Through these, the wildlife criminals exploit these technologies to offer products in their website globally, which are from threatened and extinct species are also made available on the internet. The TRAFFIC study says that in the USA, there is an actual amount of ivory trade through the internet. These trade are advertised as being derived from elephants tusks via sellers based in China.

In India also the tentacles of the illegal wildlife trade a now a significant export-import through the cyber world or cyberspace. The illegal wildlife animals and their products have been trading across the globe using internet facility in India, the forest departments and other departments that are connected with this are not able to monitor these things. It is hence the departments should look into the internet and social media and a few e-commerce websites for the tackling of illegal wildlife trade.

The direction has already implemented by the Andhra Pradesh and Telangana governments which have helped the states to get prepared to fight online trading of wild animals. These governments pointed out that there is an incredible trading sector in Northern India which they are already facing the issues, and there was a couple of incidents in the two states. The Anti- Poaching squad has seized two snakes in Medchal District (Malkajgiri) in Telangana which includes a Python and a Bronze Black Snake after the youth have smuggled them and had uploaded the photos on Facebook to attract the buyers. Similar incidents happened in other states too. the Traffic India , commonly traded and protected the wildlife species on virtual space in India included Red sand boa, Pangolin, turtles and tortoises tokay geckos, parakeets and owls, corals and shells among others.

The Indian Government has said that the websites and shopping platforms have seen advertising the sale of rare and endangered animals and their parts. The government also said that they had been strictly monitoring through the cyber patrolling to check the illegal wildlife trading through these platforms. There are many shopping platforms ²⁷ including other 106 such portals said by the Environment Minister in parliament, which shows that there is an incredible increase in the wildlife animals and its products trade that are going through the internet besides the laws and punishments are strong. The WCCB²⁸ has already requested the cybercrime specialists, to step up into the case and put forth regular checks to detect any posts and offers which sells or buys any such items related to the wild animals or plants.

The online platform like Amazon in which people are misusing such platforms, that Amazon India took down 296 items in the 'animals specimen' category and 104 items

²⁶ https://www.traffic.org/

²⁷ Snapdeal, Amazon, Rediff Shopping, Quikr, OLX, eBay, Alibaba, YouTube,

Whereincity, snakes venom.com, startortoise.uk.com and salesspider.com

²⁸ Wildlife Crime Control Bureau

under the 'snares or traps' category that were listed by third-party sellers. The E-bay India said that the company has zero tolerance for wrongdoing and has stringent policies in place to avoid the selling of products from the endangered animals on the site.²⁹

The IFAW³⁰ international fund for animal welfare states that the trade of wild animals and birds which are rare and critically endangered and their body parts are thriving through the internet. It has been found that over10,000 advertisements on 280 websites are thriving through the internet also the ads features 33,000 animals and their products which are protected by the international and national laws were on sale which valued almost a total money of about US \$ 11 Million (83 crores).

Live Animals are having the highest number of advertisements which are found in countries like Russia and Ukraine. Overall, Ivory was the most commonly touted product in online ads, accounting for almost a third. After ivory, reptiles were the next common category of commercial (26%) around the world, offering tortoise, turtles and lizards. Birds Advertisements were also common around the world (23%), ranging from birds of prey to parrot to owls. As the poaching levels are increasing the silent threat to the Endangered spies are increasing, which enables the criminals to go about their business with anonymity.

Typical Characteristics- Internet-Based Trade

- 1. Legal trade in CITES-listed species, particularly in Appendix II, is possible and legality of business cannot be determined simply from an offer for sale on the internet. Traders often take this as an advantage.
- 2. Domestic trade of many species will be legal in many countries, but the International trade will be illegal, this makes the offer for sale deliberately obscure this vital part.
- 3. Many of the animal products are put on sale as "captive breed specimen "because of misdeclaration of sources which will be registered with relevant CITES authorities. In case of IVORY carved specimens have also falsely been declared as pr- CITES convention in Europe but n web it has seen very recent origin.
- 4. Auction sites which trade in wildlife have often limited voluntary information for users. Such information is often inadequate and difficult to access.
- 5. Offer for sales usually do not mention requirements for CITES or other documentation when such documentation is promised; their authenticity and integrity also need to be established.
- 6. All buyers and sellers may not knowingly break the law. In lack of clear, easily accessible information, people may unwittingly continue to be attracted to this trade.

²⁹ https://www.ebay.in/

³⁰ https://www.ifaw.org/international

- 7. The critical part of the trade could involve fraud. Non-delivery of scam is typical for a wide range of consumer products in parts of the world.
- 8. As websites have been a virtual experience, it is more difficult to track and verify products before the actual scale.
- 9. The websites could be hosted on servers in countries different from the source of products they trade, making it difficult in terms of legal jurisdiction for enforcement officials.

Enforcement Challenges

- 1. The task of tracking the internet, by the poacher can easily identify the location easily.
- 2. Once the criminal is identified, a jurisdictional authority should be established for enforcement as these criminals will be in different countries.
- 3. Electronic devices are quickly deleted, perishable or manipulated. So collection, evaluation, and presentation of such an electronic device is a challenge
- 4. Trained and well-equipped personal should be there to gather evidence, investigate and prosecute cases.
- 5. Increase consumer awareness in key markets.

CHAPTER- 3

Wildlife management:

The Rare and Endangered species with special reference to Man-Animals conflict

Wildlife Management

Wildlife Habitat Management aims to align the needs of the animal's needs with the people's needs, using the best tool available. Managing Wildlife may include game management, habitat protection and control of pests.³¹ Wildlife management is interdisciplinary in the protection of endangered and threatened species and subspecies and their ecosystems, as well as non-threatened farm animals and game species. Wildlife management takes into account ecological values such as habitat capability transport, ecosystem protection and regulation, reforestation, predator control, the reintroduction of extinct species, capture and relocation of abundant species, and management of "wanted" or "unwanted" species.

When humans build the environment, there is an increased risk of conflict between wildlife and humans. Threats vary from the extension of agricultural borders to habitat destruction by roads and buildings, to the selling of wildlife as food, gifts, ornaments, medicine, and pets. Wildlife management helps to ensure that they have a say in their future. Control of wildlife is more about managing people. Except when wildlife populations are so small that they need help for finding food or mates, then animals can handle themselves correctly. The long-term survival of wildlife is endangered by the use of wild animals and their habitat.

Wildlife management is a general term used by wildlife managers to maintain biodiversity at appropriate levels. The art and science of wildlife management are achieving goals by exploitation and protection of ecosystems and populations of wildlife. The process of Wildlife management includes;

- 1. Our understanding and knowledge about the wildlife population and their trends.
- 2. Factors that will influence wildlife populations.
- 3. The Interaction of the wildlife species
- 4. The Impact of Human beings
- 5. How the surrounding Environment affects wildlife and its Habitat.

³¹ https://en.wikipedia.org/wiki/Wildlife_management

Need Of Wildlife Management

As said, Wildlife management attempts to balance the needs of wildlife. So it is essential to manage the wildlife to protect it from extension and other sorts of problems it faces in their habitat.

1. Balance of Nature

Wildlife helps us in maintaining the balance of nature. In modern times, even Humanity has been separated itself nature which includes animal relatives. The the surprise is that majority of human species still afraid of considering themselves as Animals or even closely related to animal behaviour. The humans have already Forgotten the wildlife species, one of which through nature is balancing. The Contribution to Ecological Balance as predator, prey, decomposer, preserver, and in this way ecological balance is preserved and when the earth becomes a host everincreasing mass-extinction of wildlife happens the heath of the planet would become Sick.

2. Tourism

Tourism helps wildlife management when foreign exchange is linked to it. So to get The foreign investment there should be proposed of the wildlife and habitat. The persons coming from other countries are also playing a significant role in the country's The financial sector, which helps to build wildlife strong.

3. Make study easy

Wildlife management helps people to study very quickly. The wildlife preservation is one of the important things if they have attained skills by using biological language to discuss, explain and apply ecological and evolutionary processes In wildlife conservation. Researchers will also be able to analyse biodiversity problems from individual species to global ecosystems and societies using ecological and Evolutionary concepts.

4. Cultural Asset

The wildlife is the cultural asset of a country like India. It has a deep-rooted effect on Art sculpture, literature and religion of the country.

5. Sustainable Development

Sustainable management of wildlife (SWM) is the sound management of wildlife species to maintain their populations and habitat over time, taking into account the Socio-economic needs of people. It needs all land-users within the wildlife habitat to be aware of the effects of their actions on wildlife resources and environment and respect Them.

The wildlife management purposes that it is useful to identify as protective factors, disseminating factors, and environmental influences the various and complexly interrelated factors that function in ecosystems. Welfare considerations, wildlife habitat requirements, can be specified at multiple resolution levels.

At the lowest level of resolution:

- (1) All species require oxygen, food, types of coverage, needs of species, interspersion and Space. The habitat requirements of species can be defined Only if there is an increase amount of resolution.
- (2) Observe the list of habitat types that are needed,
- (3) listing out the specific welfare factors and
- (4) Welfare factor components lists are also required.

Appropriate habitat must provide welfare considerations for all seasons and weather conditions, regardless of sex, age or class of animals. Detecting welfare-limiting factors is essential for successful habitat management programs. The ecosystems of wildlife are not safe. A great deal of habitat change is due to biotic evolution, regression, or rather abrupt natural or human-made disruptions such as burning, deforestation, or flooding. These changes alter and are reasonably predictable, such as food, cover and other natural resources for all wildlife species. Therefore, control of succession, retrogression and disruption is a lot to do in the wildlife habitat management.

Wildlife management consists of managing the number, distribution and quality of wildlife, both directly and through wildlife habitat exploitation. Choosing a database for a management program is one of the most important decisions taken by the management biologist. Climate directly affects wildlife as a cause of mortality and indirectly by restricting animal movements and affecting habitat resource quality and availability and productivity of habitats, predators and disease species.

The Wildlife Measurements include (1) Population index (2) Population census (3) Habitat measurements (4) ecological density index

Wildlife management is the art of making wildlife populations, for harvesting or other values, productive land. Wildlife management consists of many decisions, such as:

- (1) whether to have an extended hunting season or a short one
- (2) whether to compromise biologically optimum goals with prevailing public opinion,
- (3) whether to improve existing habitat or to purchase more land.

The Protected Areas: Wildlife Management

The total forest cover in India is about 708,273 square kilometres, which is 21.54 per cent of India's geographical area.

There are two modes of the wildlife management process;

- (1) In-situ conservation (on-site preservation)
- (2) Ex-situ conservation (experimental situation in monitored conditions).

Various types of protected area demarcation are suggested for the in-situ conservation of endangered plant and animal species. In India 104 national parks are covering an area of 40,501,13 km2 (15,637,57 sq mi) under Category II Indian protected areas covering 1.23% of

India's total area. The 543 Wildlife Sanctuaries were created in 2017. Out of these, there are 50 tiger reserves which give importance to the Bengal Tiger Conservation³². India's wildlife sanctuaries are listed as protected areas in Category IV. In India there are 18 Biosphere reserves out of these 11 are part of the World Network of Biosphere Reserves, India's Biosphere reserve is listed as protected areas in Category V. the **protected areas of India** cover 156,700 square kilometres (60,500 sq mi), roughly 4.95% of the total surface area.

Also, the Zoological Park / Garden is a centre for animal conservation. It is also the preferred site for the captive breeding of rare animals. There are several zoo gardens on selected animals set up for public recreation in different cities of the country as well as research and development activities. Although the network of Protected Areas extends from high-altitude Himalayan parks, deserts, evergreen and deciduous forests to mangroves and coastal areas, ' unprotected ' areas of biological values are still considered important from a conservation point of view.

In 1952, the Indian Wildlife Board was established to advise the government on measures to be taken to conserve wildlife resources. It was reconstituted as the National Wildlife Board in September 2003 under the chairmanship of India's Prime Minister as a statutory authority. The 'forests and protection of wild animals and birds' being included in the 'Concurrent List ' of the Indian Constitution, National Parks and Wildlife Sanctuaries management and administration is the responsibility of the respective state governments.

The Protected Area network covers about 20.42 per cent of the forest area of the country, The Protected Areas, however, can still be called discreet isolated forest patches managed exclusively for the preservation of wildlife/biodiversity. Most of India's protected areas have a core area with national park status and a peripheral buffer zone that can either be a refuge for wildlife or a forest reserve. The 1991 amendment to the Wildlife Protection Act stipulates that the chief wildlife warden must certify in wildlife sanctuaries that any manipulation does not harm wildlife and that the state government approves the manipulation.³³

Since 1991, the Government of India has committed funds for eco-development (also known as Integrated Conservation and Development) and a site-specific package of measures for biodiversity conservation through local economic development, particularly in the field of Protective Areas Management.

Rare And Endangered Species - A Cause for Concern

India is the home of different species of animals, birds, fishes, etc. which include some of the farm animals like goats, poultry, cows, buffaloes, pigs etc. The country is also a habitat for wildlife such as tigers from Bengal, deer, wolves, pythons, Indian lions, bears, snakes, monkeys, many bison types, Asian elephants and antelope species. India is one of the world's mega-diverse countries out of a total of 17 mega-diverse countries. These 17 mega-diverse countries, including India, are the habitats of around 60-70% of the world's biodiversity. Approximately 7.6% of mammals in the world and 12.6% of birds in the world are found in India. Globally, the illicit demand for wildlife and its products has seen the subcontinent increase in wildlife crime. The Western Ghats, the Eastern Himalayas, and Indo-Burma are three of the world's 34 biodiversity hotspots.

³² https://www.wwfindia.org/about_wwf/priority_species/bengal_tiger/

³³ Wildlife protection act, 1972

Endangered species are those animals that are at the risk of extinction due to a sudden rapid population decline or loss of critical habitat.

Rare species is a group of infrequent, scarce, or rarely encountered organisms. Designation of a rare species may be made by an official body, such as a national government, state, or province.

Why Critically Endangered?

The critically endangered species, according to the IUCN Red List, are at the highest risk of extinction. There are five ways to determine whether or not the species is endangered.³⁴

- 1. When the geographical range for the species is limited.
- 2. Where there is less than 50 adult individuals or very less or limited population.
- 3. For the last ten years or three generations if the people had decreased by 80%
- 4. Over the previous three years or 1 generation, if the population is less than 250 Individuals it is declining by 25%.
- 5. If there is a high possibility of wild extinction.

India's most endangered animals are Indian elephant, Bengal tiger, Indian lion, Indian Rhino, Gaur, lion-tailed macaque, Tibetan Antelope, Ganga river dolphin, Nilgiri Tahr, snow leopard, dhole, blackbuck, large Indian bustard, forest owlet, white-winged duck, and much more.

Reasons for Endangerment

1. Habitat Loss

Habitat loss is one of the primary causes of species endangerment. In the degradation of the natural landscape, human intervention plays a significant role today—social actions such as cutting trees that provide countless species, mining and agriculture with food and shelter.

2. Hunting and Trade

Overhunting and poaching, the number of animals and fish around the world are having a very destructive and catastrophic effect.

3. **Population**

In the endangerment of animal species, pollution such as air pollution, water pollution and waste pollution, particularly in the form of plastic, plays a very dominant role.

³⁴ https://www.iucn.org/ssc-groups/mammals/antelope-specialist-group/species-account/criticallyendangered-species

4. **Predators**

There is always a precise balance between the number of predators and their prey animals in a robust and hearty environment. The predators who are their prey animals ' natural enemies choose the old and sick prey because they can not keep up with their group. The relationship between them is healthy in this scenario as the predators eat only those prey animals that are already close to the end of their lives. But the problems become more when the predators wander in such an area where only a few numbers of their prey animals will be received.

5. Overcrowding And Overgrazing

The main two reasons are overcrowding and overgrazing. They are often kept in a sanctuary and shelter to save the animals from poaching and hunting. Although it is very beneficial for some animals, other animals suffer and are in trouble to be endangered. In the limited area, these grass are eaten by the same animal, while the grazing animals continue to change the landscape while eating and moving for most of the time.

Saving of Endangered Animals

1. **Population Control**

It can have a significant positive impact on animals, fish and birds around the world if pollution can be controlled around the globe.

2. Breeding Programmes

A variety of breeding programs have been initiated to save the endangered animals from extinction. The government, NGOs and other corporate bodies should come forward for this cause as this initiative requires committed and unique individuals and a lot of money,

3. Educate your family, friends about endangered species in your area.

It's not just about Russia's snow leopards; it's about your own backyard's ecosystem. Learn about the wildlife, birds, fish and plants that live near you to your friends and family. Only becoming aware of these species is a critical step.

4. **Control Hunting/ Poaching**

Unless hunting and fishing can be regulated, the number of endangered animals can change significantly. The shooting and poaching of animals play an essential role in the animal ecosystem as it keeps on decreasing the animals and will lead to endangering.

5. Volunteer out time to protect and educate

Wildlife, sanctuaries, parks and other places are often underfunded and desperate for help. Volunteering some of these places to protect animals and to take care of the wildlife areas can help the ongoing visitors to see and understand and educate them.

6. Blackout the Black Market

When we are travelling around the world, we used to buy things which attract in our eyes, but we may not even know that those things that we buy are under threat. When we buy such situations, we are supporting these kinds of illegal things which are made out of animals which include tortoise-shell, ivory, and coral etc.

7. **Reduce water consumption**

During drought, people use the water for their lawns. But we need to understand that clean water for wild animals is a global problem, so the less human consumption, the better. Never dump any chemicals or pharmaceuticals into the drains, lakes or streams because when we do that, the animals which drink that will get affected and sometimes leads to death.

8. Slow down when driving

Many animals live in developed areas, which means they have to navigate a landscape full of human hazards. This is one of the significant problems when such animals are killed, and it becomes an extinct species. So people are to be careful while driving the vehicle. So, slow down and keep an eye out for wildlife when you're out and about.

9. Harassing wildlife is cruel and illegal.

Harassing of animals such as shooting, trapping or forcing a threatened or endangered species into captivity is illegal and such confinement can be lead to the extinction of the species. Stay away from Participating in such activities, also If certain events are taking place, one should report to the nearest wildlife office.

Steps Taken by the Government - Wildlife Protection

- 1. All states, except Jammu and Kashmir (it has its law), adopted in 1972 the Wildlife (Protection) Act banning/prohibiting any kind of trade in endangered and rare species.
- 2. The Central Government provides State Governments with all kinds of financial Assistance for the conservation and protection of endangered species.
- 3. In 1970, the nationwide ban on tiger hunting was enforced and in 1972 the Wildlife Protection Act came into force. There is an overall increase of 30 per cent in the tiger Population, according to the latest tiger census (2015). According to the tiger census, there were 1700 tigers left in India in 2010, which increased to 2226 tigers in 2015, the total count of tigers has risen to 2,967 from 2,226 in 2015 — an increase of 741 Individuals (aged more than one year), or 33%, in four years.
- 4. The government has set up countless numbers of national parks, wildlife sanctuaries, Zoological parks, Biosphere Reserves etc.

As of March 2019 the IUCN (International Union for Conservation of Nature) which is having a Red Book Which shows the amount of threatened and endangered species worldwide founded in 1964 Is the world's most complete inventory of biological species global conservation status. While we discuss the IUCN Red List the term "Threatened" species means that of the critically endangered, endangered & vulnerable species of animals in the world.

The IUCN Red List India³⁵ says about many of the species such as

Critically Endangered Mammals

- 1. Himalayan Brown/ Red Bear
- 2. Pygmy Hog
- 3. Andaman White Toothed shrew
- 4. Kondana Rat
- 5. Large Rock Rat / Elvira Rat
- 6. Namdapha flying squirrel
- 7. Malabar Civet
- 8. Sumatran Rhinoceros
- 9. Kashmir Stag / Hangul.

Endangered Mammals

- 1. Tigers (including Bengal Tigers)
- 2. Asiatic Lions (Including Gir Lions)
- 3. Red Panda
- 4. Dhole / Asiatic Wild Dog / Indian Wild Dog
- 5. Eld's Deer / thiamin / brow-antlered deer
- 6. Golden Langur
- 7. Himalayan / white-bellied musk deer
- 8. Hispid hare / Assam Rabbit
- 9. Hog Deer
- 10. Lion Tailed Macaque
- 11. Nilgiri Thar
- 12. Khari Camel.

POACHING OF TIGER: THE ENDANGERED SPECIES

The most threatened species is the Tiger. In India, nearly 41% of the tiger species have been lost in the past 17 years³⁶. India was experiencing the most significant contraction in history. Although part of the difference is due to the improved data after a decade of intense tiger conservation efforts and improved data sets and techniques, biologists find that the primary cause of poaching is habitat loss which leads us to the decline of the tiger species in the country.

Another reason for the reduction of tigers is that the average 55% of the tiger conservation landscapes consists of non-tiger habitat. The decrease in the population and occupancy in the area covers more than 41%. Thus this indicates the 50% or more significant reduction in the

³⁵ https://www.iucn.org/asia/countries/india

³⁶ Reports of IUCN (International Union for Conservation of Nature)

tiger species. In the last 2006-2010, the tiger population was reduced to 12.6% because of the habitat corridors. Also, the tiger poaching is one of the primary cause of the decline of the tiger population in India.

The tiger population of the has been one of the crucial problems that the country is facing today. The poachers of the tigers in some of the states in India is the problem for the rapid deduction of the tigers. The Bahelia Community is one such community in India in the state of Madhya Pradesh who is well known for the tiger poaching in the past decade. It's not only the Bahelia community the Bawariyas or the pardhis are also the same facet to the organised crime with the international poaching communities. More and more people are coming into the low-risk high-profit poaching industry.

The poachers are mostly from the three tribes from the states like, Madhya Pradesh, Maharashtra, and Karnataka where the regions are so vulnerable to poaching and the area is that much attracted to the poachers who transport the body parts, skin and other things to the nearby Hubs for the wildlife trade for a long time through rail, road networks. These places are also adjacent to the tiger reserves as well as within the forest area, so it's straightforward for them to trade.

The group is not daunting because the traditionally hunting families have the signature style and are often travel with their families and set up camps near the forest and tiger reserves and start selling the knick-knacks before beginning to probe into the woods for not only just for tiger but also they may be killed for their meat or poached for skin, for medicines or any other things. The professional poachers capture the tiger and are attacked on the nose to anger it. The tiger bites the spear, and there will be no damage to their skin, the spear then lodges itself inside the throat of the tiger, and it inevitably dies. If the tiger does not kill at the first try, the spear is used again and again.

In the bright moonlight is when it allows the tiger to be immediately skinned with tanning material. The poachers hide the head of the tiger's head under a rock, and the body is buried or thrown away to a different direction to divert the attention of the forest officials. The purpose of bury is to collect the bones after the body decomposes. The skin and other parts are shifted through carriers, and the role of poachers ends here. The airline takes these things through crowded train or the earliest buses to nearby cities such as Chennai, Raipur, Delhi, Bengaluru, Lucknow etc. and meets the designated person and hands over it to the person and the money is not exchanged here because it is usually provided as an advance by the trader or through an immediate cash transfer upon delivery. When saying about the arrest of persons, it is slow and rare, and no one carries any proof of the crime that means that One tiger is less now in the country.

According to the statistics, thirty-five tigers have already been poached in the year 2019³⁷. The government data shows that out of 2,269 people arrested in poaching cases since 2015, only 126 have been convicted³⁸. The poachers make anywhere between Rs. 20,000/- to 1 Lakh and the middlemen earn anywhere between Rs. 10-70 Lakhs. The Indian customers are known to pay around 2050 lakhs, but the foreign market pays up to 1 crore and more. So, poaching is no longer just a tribal groups business, because, from the mainstream

³⁷ WCCB(wildlife crime control bureau)

³⁸ Ministry of Environment and Forests.

communities, they recruit members with low risk and high-profit business. There are many cases where villagers also play an essential role in the poaching activities, the villagers around the tiger reserves lay electric wire trap for boars but ends up in entangling a tiger and burying its parts. These villagers will not be regular poachers but have contributed significantly for the unnatural tiger deaths.

The latest tiger census is very encouraging where the successful methods and techniques have been adopted by the wildlife authorities and wildlife conservationists to protect the Royal Bengal Tiger. In Madhya Pradesh whose record shows the highest number of tiger, i.e. 526 tigers, followed by, Karnataka and Uttarakhand, i.e. 524 and442 respectively. India is a home for 70% of the world's tiger population. In 2006 the tiger population was 1411 ut was increased to 1,706 in 2010 which was again increased in the year 2014 to 2,226 and at the end of the 2019 census it has increased further to 2,967.

POACHING OF ELEPHANTS: VERGE OF EXTINCTION

Elephants are enormous animals which live in the forests; some of the elephants are also adapted to the human environment. People love elephants so much. The elephants are also royal animals because of the way it lives. But there are many problems also connected with them. Some of the persons see it in a different way than they are taken away and killed others sees it as a god in India.

One of the most prevalent species throughout India was the Asian Elephants, which are now endangered species included in the IUCN Red List. India is the home of 25,000-27,000 of Asian elephants Out of the 40,000 - 50,000.

The main problem is with the traders in the forest where they live. The elephants are killed for their Ivory which has a massive profit in national and international markets. This makes the smugglers and traffickers and poachers to do the organised crime. The authorities have banned the ivory trade in India. But the resurgence in this practice has put the elephants in the path of extinction. The Domestic ivory market in India is shocking, which made wildlife crime control agencies and other NGOs in a horrifying situation.

At least four significant raids conducted in which states like Maharashtra, and Kerala in the past 6-8 months. In the year 2015, the most considerable ivory consignment of India with around 487 Kg worth Rs. 12 crore was seized from by the Kerala Forest Department who was trading in the black market. Based on the person, more than 90 persons have been arrested. The purchasing power of the individuals in India has gone up rapidly. The experts point out the finger at the high profile individuals like Politicians, Ministers, Bureaucrats, Celebrities, Film stars and Royal Families who can afford to purchase the items.

The poaching in elephants for its Ivory, Meat make the elephants decline year by year. The high value in the market for the elephant products, especially the Ivory makes it one of the most extensive trades among any other things. Due to lack of enforcement and anti-poaching measures, even the slaughtering of elephants takes place. The tuskers in India have only 4% with the sex ratio as well as the elephants are declining. The demand for Ivory and the man greedy for the money makes it possible within its sphere. With the latest technology with the poachers and the harsh conditions of the forest, the guard makes it difficult to trace and identify the poachers.

The data shows that the number of elephants has declined during the past ten years, i.e., from 2008 - 2018. Due to the poaching activities, 429 elephants have died for the past ten years; also, 642 poachers have been arrested from across the country³⁹. Due to human encroachment and habitat loss, Asian Elephants having a massive decline in their numbers. The road and rail accidents also play a considerable role in the fall of the elephant population. Electrocution on high voltage fencing lines and unexplained mortality rate among young elephants makes a vast difference in the Elephant population in India. The problems faced by all the three subspecies (Srilankan, Indian, Sumatran) is that the females cannot find suitable mates who are a reflection of the poaching activities that are happening throughout the country.

On the state-wise data so far as collecting the number of elephants that have been killed by the poachers during the last ten years are 40

Kerala (136)
West Bengal (48)
Karnataka (46)
Tamil Nadu (44)
Odisha (41)

Haryana, Bihar, Himachal Pradesh, Madhya Pradesh, Punjab, Sikkim, Telangana etc. are some of the States in India from where not a single Elephant had been poached during the same period. Tripura Records only one elephant death at this time.

ECO-SENSITIVE ZONES

The eco-sensitive zones (ESZs) or ecologically fragile areas (EFAs) are the National Wildlife action plan which declared that the areas falling around or within 10 km of the boundaries of National Parks and Sanctuaries should be notified as eco-fragile zones⁴¹. On the recommendation of the NBWL⁴² That the delineation of the eco-sensitive zones has to be more specifically related to regulation rather than prohibition of specific activities. The criteria have been accepted by the NBWL and proposed:

- 1. protection to the endemic species.
- 2. Not to reduce, Damage nor destroy the Habitat of endangered species.
- 3. biological corridors protection.
- 4. Protection of the ecosystem such as coral reefs, mangroves etc.
- 5. Protection to the sites associated with endangered species with reproductive, breeding Or Nurturing behaviour.
- 6. Existence of Pristine Forests⁴³
- 7. More than 60° steep slopes.

³⁹ http://www.poachingfacts.com/poaching-statistics/elephant-poaching-statistics/

⁴⁰ Office of the WCCB(wildlife crime control bureau)

⁴¹ Section 3(v) of the Environmental (Protection) Act & Rule 5 sub rule 5 (Viii) & (x) of the Environmental (Protection) Rules.

⁴²National Board For Wildlife

⁴³ The forests that are still not yet damaged by Humans or any other conditions.

Human-Wildlife Conflict

Human-wildlife conflict occurs when there is an interaction between man and animals which happen when the human population overlaps with the wildlife territory which creates competition for the land and resources which gives the negative impact on the people, animals, resources and their habitat.

The IUCN SSC⁴⁴Says, the Human-Wildlife conflict(HWC) occurs when animals create a direct threat to the livelihood or safety of the people leading to the persecution of that species. The HWC affects mostly the carnivores species of animals, but it's not limited to the animals like Elephant, Pigs, Deer, Primates, Sharks, Seal, Crocodiles, Rhinos, Birds of prey etc. This conflict impacts severely often many nations and peoples their livelihood, security and wellbeing from whom we ask support for the conservation of the environment and animals.

In India, Man –Animal conflicts are widespread in various parts of the country. The Wild Elephants wills more people than the Tiger, Leopard, or the Lion. It's a surprising fact that Human Conflict involving Leopards draws more attention than any other animals to the broader public. The conflicts between human animals lead to Environmental impacts and the population. It also a threat to the survival of many endangered species like Wild Buffalo, Elephants, Lion, Tiger, Leopard etc. In This Universe, the man and animal are placed equally, but the approach to human rights in case of conflicts is often based on anthropocentricity.⁴⁵ Why it is anthropocentricity? It because the laws are human-made, and there is a likelihood of bias towards man and the animal rights for them is secondary importance.

The increase in Human population, expansion of the development and global climate change the man-animal conflicts are becoming a grave issue to the wildlife conservation and the livelihood of the people. Such human and environmental factors put people and wildlife in greater competition for diminishing resources. It also costs many lives of both human and wildlife and property(which includes buildings, equipment, livestock, crops, pets or fences). It also threatens the livelihood and jeopardises long terms conservation goals such as protection of protected areas and biodiversity conservation.⁴⁶

The things that include the Man-Animal conflicts are ;

- 1. Preying on livestock or Domestic animals by wildlife.
- 2. Damaging of crops and fences by ungulate (hoofed mammals).
- 3. Beavers caused the flood.
- 4. Strewing of residential garbage by wild animals.
- 5. Squirrel or bats in home attics.
- 6. In undesirable residential location, birds make a nest.
- 7. Collisions by the Vehicles or Wildlife.

⁴⁴ Species survival commission of the IUCN (International Union for Conservation of Nature)

⁴⁵ T.N. Godavarman Thirumulpad Vs. UOI & Ors., AIR 2012 SC 1254

⁴⁶ Barua Mann, Human Wildlife Conflict 7 21st Century Conservation, (2010) University Of Oxford

The encroachment of human beings into wildlife for the development purpose as well as livestock grazing in the forest area, which can lead to a forest fire and also the loss to humans as well as animals. The carnivores like- tiger, lions, wolves etc. which are well known for a large number of human deaths in the past are now restricted but are not widespread as that of leopard.⁴⁷ These also result in the farmer's crops and decline of wildlife conservation.

Reasons for Man Animal Conflict

There are many reasons which affect the humans as well as animals in the conflict, which results in the loss of both human and animal life, crops, habitat, conservation process etc. Let us study more about the reasons for Man Animal conflicts.

1. ROAD KILLS

Due to the expanding economy and increase in the vehicular traffic, India's road The network is expanding at a very high and on an enormous scale. Indian roads almost carry 90% of the passenger traffic it's population gets increase day by day and also The density of the traffic grows at a rate of 10% annually. Some of the roads are built Through the protected areas. But the serious problem is that it always becomes a threat to wildlife as several animals are being killed on the road due to heavy traffic and of speeding Of vehicles daily. The weak eyesight and high speed of vehicles is a problem to The death of innumerable animals. Due to the roads inside the protected areas and sanctuaries, Nocturnal animals like bats, mouse, civet, black-naped hare, leopard, sambar Are the commonly killed animals species on the road at night. Also, large mammals like tiger, elephant, claves, chital, dhole, sloth bear, wolf and Amphibians, reptiles and birds Were also killed due to the vehicular road traffic.⁴⁸ When these animals are killed they Make several indirect effects on the environment, such as population. For example, if a female tiger has been killed, and its cubs would die out of starvation or the death of Dominant males indirectly affect the impact on the population.

An example to show what to do to protect wildlife from the road kills was, Since last September 2019, the Supreme court upheld the Karnataka High Court night traffic ban for the crucial safety for the wildlife in Bandipur National park which is spread over 1,000 sq.km covering three states – Karnataka (Nagarhole National Park), Tamil Nadu (Mudumalai Wildlife Sanctuary), and Kerala (Wayanad Wildlife Sanctuary). Its also home of about 140 tigers, 1,500 Elephants and over 25,000 deers. The project tiger was launched in 1973. In 1984 it became a National Park. It is one of the oldest Tiger Reserves in India. The stretch of 19 km was running through the Bandipur national park which will be a major problem concerning the wildlife, so the vehicular movement in the park has been restricted from 09 p.m. to 06 a.m. the apex court has made a firm decision after hearing suggestions from the wildlife and WPSS⁴⁹ The court observed that. The roads passing through Tiger Conservation (Buffer zones) are ought not to be permitted at all.

⁴⁷ Times Of India, 21st July 2012

⁴⁸ Guidelines for human leopard Management, Ministry of Environment & Forests, Government of India.

⁴⁹ Wayanad Prakruthi Samrakshana Samithi.

2. LIVESTOCK GRAZING

Due to natural attraction towards the prey by the carnivores, livestock grazing becomes one of the important to the human-wildlife conflicts. Grazing by the livestock has threatened the wildlife and habitat in various ways. The Bandipur Nationals Park had shown how the wild animals are declining where the grazing pressure is so high. Due to Elephant proof trench and Solar Fencing, the livestock grazers have also become an essential link in the human-wildlife conflict which is done to prevent the wild animals entering their crop fields.

Livestock grazing inside the forest has bought wild carnivores to get their prey very quickly, which resulted in the killing of large carnivores by this conflict the numbers of the carnivores can also decline directly. Not only livestock are effected but also water availability in the dry seasons the livestock compete with the wild animals for the water in forests. It is noted that the livestock spreads many infectious diseases from domestic to wild animals causing its death. Also, massive grazing increase soil erosion from the forest.

3. INCREASE HUMAN POPULATION

Requiring the amount of the availability for humans have lead to the conflict directly as the settlements of the humans started expanding the land for wildlife have been diminishing. Many of the arrangements are being near to the National Parks or Sanctuaries, which made these people living in the settlement, to encroach into the forest for their benefit. The population is increasing at a massive rate where each of our lands is increasing day by day.

As the city is being filled with the people, the land becomes inadequate for human needs, so the boundaries are pushed into the forest land which directly impacts on wild animals as they are disturbed, homeless and gets started by making the wetlands and the forest patches dry up. When it has been dried up, animals come into the land for in search of food which will end up in man animals conflict.

4. LAND TRANSFORMATION

The humans as their population increase the land also increases and for their livelihood they need to do the job of agriculture and horticulture, which is the primary income in India. So humans transform the property they have expanded to the agriculture land where the animals had to stay and also they will clear the areas for monoculture plantations for areca nut and Teak plantations.

The forest areas and habitat of animals submerged due to the constructions of the hydroelectric projects for the development of the clearance for mining and industry also lead to the destruction of the natural habitat of wild animals. Livestock holdings and agriculture are essential for livelihood and income for the people in rural areas, even the competition between the local communities in the places and wild animals for the use of natural resources, escalating conflict.⁵⁰

⁵⁰(Mishra et al., 2003)

OVER-VIEW HUMAN WILDLIFE CONFLICT: INDIA

Man Animal conflict arises because of Human's encroach into Wildlife territory and not because of Animals to Human lands. Because man failed to Protect the endangered species, the conflict happens between the Man and endangered usually happens. It's not only from a natural cause but for the attitude which was destructive and for the pleasure and gain. Which often said to be human population growth, increase in eco-tourism, fragmentation, land use transformation, species habitat loss etc.

The management for the conservation of such wild animals is to be put forward. Education for the local population, resettlement of villages, grazing of livestock and also the domestic animals in the forest. The state government has the right to cancel the patta that has already granted to the persons and initiate acquisition and encroachment if happened to preserve and protect the wildlife and its corridors including the endangered species like wild buffalo and other species included in the scheduled 1 part 1 of the Wildlife (Protection) Act.

In India, the conflict gives rise to the loss of animals, livestock, damage to crops and property of farmers. By stopping of degradation of physical barriers, habitats to wild animals, active guarding of the crops and providing compensation of affected families may reduce the mananimal conflict. The cause by interference, the privacy of the wild animals by the development in the forest leads to the conflict with wildlife.⁵¹

REDUCTION OF CONFLICT

The conflict can be reduced by the following methods and use of the ways the conflict between the man and the animals can be reduced, and it won't lead to severe loss to both of them:

1. Improvement of Habitat

The State Government was assisted by the Ministry of Environment and Forests for the improvements of the wildlife habitat such as, food and water availability, which makes the Wild animals movement to the Human Habitats stay minimised.

2. Training Programmes

It's the duty of the Forest Officials to give training to the residents and the police officers or any other people to face the wildlife conflict with the humans. The officers should frame guidelines for the management and conservation of the animal species which conflict with human such as Leopard, Tiger, Elephant etc. and publish the same in the local community.

3. Awareness Programmes

The awareness to the people of the local community to know about the Do's and Don'ts to minimise the conflict between the man and animal, which will lead to mass destruction.

⁵¹ Man-Animal conflict in India, Ministry of Environment and Forests.

4. Technical & Financial Support

By providing the technical and financial support for the development of infrastructure and facilities for immobilisation of the problematic animals through tranquillisation and their rescue to the rescue centres and or release back to its natural habitat.

5. Boundary walls

The construction of the boundary walls and with solar fences around the sensitive areas to protect and prevent the wild animals from their attacks.

Human-Elephant Conflicts

In the Elephant range countries, the Conservation of Human-Elephant conflict is a significant conservation concern. The management strategies have been developed in many countries for prevention and mitigating the human-elephant conflict. While talking about the preventing measures that have been developed as a measure for the human-elephant conflict, the strategies that have been driven factor that's only for a short-term period. While the mitigation strategies frequently transfer conflict risk from one place to another.

The large spread loss of Elephant habitat, the degraded forage, reduce landscape connectivity and significant decline in the elephant in their population is due to the human settlements and agricultural fields in a country like India.⁵² As a result of this, the Elephant population progressively forced to be in contact with the Human settlements and wit people, resulting in conflict over the humans and resources ranging from the crop to loss of life.⁵³ As we said about the biodiversity also, the Human-Elephant conflict has become a threat to the management that such dispute has become more prominent in the country like India. The understanding of the growth of wildlife behaviour and human-wildlife conflict has lead to the suggestion, development and adoption of a wide variety of prevention and mitigation approach.⁵⁴ This management approaches prevention through exclusion via, elephant translocation or selective culling and monetary compensation. The management approaches only the symptoms rather than, cultural values, decision making, increasing fragmentation and isolation of elephant populations has been an underlying factor.

The wildlife needs are to be measured and modelled to improve the management and the conservation, the information about the cultural values, norms and decision making about the habitat which supports the local livelihoods and household production. The human geographers, social scientists, anthropologists did not adequately integrate into this matter. The elephants are log lived animals, and their survival depends upon the regular migration in search of food water and the social reproductive partners.⁵⁵

⁵² Thouless et al., 2016; calabrese et al., 2017

⁵³ Leimgruber et al., 2003, Newmark 2008

⁵⁴ Fernando et al., 2005; Gubbi, 2012

⁵⁵ Sukumar,2003; Whyte, 2012

The Elephant, which is the mega-Herbivore, it consumes 150 kg of food and 190 litres of water daily.⁵⁶ The ecosystem and the imbalance of the biodiversity and the surrounding areas of the protected areas are affected by the poachers and the need of the food and water the loss of the Indian elephants at a larger scale which indicate that the engineering influence of the elephants on the eco-systems in India.⁵⁷

The Human elephant, due to the development and the well being of the human settlement and communities the megaherbivores is a significant challenge for supporting the survival and its persistence in India. In 2010, alone 400 people and 100 elephants had died with 5,00,000 peoples affected the farmer's crops.⁵⁸ When we talk about the Human and elephant conflicts we should always see that in the past three years (2015-2018) the Human-Elephant has caused around 1,713 Human and 373 Elephants deaths by unnatural causes which includes the Electrocution and poaching activity, the habitat disturbance and urbanisation are the factors that cause the rise of unnatural human and animal casualties. The most number of victims during the past three years was the highest in West Bengal (307 death) Odisha (305deaths). In the year 2018 alone the destruction of the elephant conflicts in 16 states was 277 people, with Assam reporting the highest number of 86 persons.

The habitat loss and fragmentation(40%-50%) of the landscape which is transformed for the human settlement is rendered area which is unfit for Elephants. Cutting of the trees and clearing the land for the agriculture purposes and expansion of the property and improve the livestock forage may draw elephants to patches of new vegetative growth. Digging holes to access groundwater planting field near to the water sources may later elephant migrate its routes. The roads and the farms surrounding the fragmentation feeding grounds are more dangerous to human-elephant conflict.

The Human Elephants conflicts can be categorised into two parts these

- (i) Human population, large scale development projects and poor governance.
- (ii) Habitat Loss, disruption of the migratory elephant routes, expansion of agriculture and Illegal encroachment into protected areas.

The border fencing along the India Bangladesh border is a significant problem for the free movement of the elephant from one place to another. In the 1980s the estimated killing of people by elephants were about 100 now it's Over 400 people are killed by elephants every year, 0.8 to 1 million hectare of land has been damaged due to the conflict.

In Dalma Sanctuary, near Jamshedpur, which is known for the paradise of elephants despite the chasing of the villagers, the elephants moved where there has paddy fields are there. According to the statistics, nearly 80% of the people died due to encounter with those animals

⁵⁶ Vancuylenberg, 1977; Sukumar, 2003

⁵⁷ Fritz, 2017

⁵⁸ Ministry of Environment and Forests, 2010

also while chasing the elephant. As it is a tribal belt, the alcoholism is rampant. These elephants come to the Dalma wildlife sanctuary in hot months of May, travel in search of food and water as other parts of the forests become scarce of water and food.

Electrocution of elephants

The Electrocution is killing every year Elephants from transmission lines passing through the forests. An average Of around 50 Elephants is being executed.⁵⁹ The death of the elephants happens when they stumble upon ill-maintained power lines and the electrical infrastructure passing through their forest abodes. Electrocution in elephants is a vital phenomenon concerning the management of Elephants in India. The death due to the electrocution stood at 226 contribution of around 60.06% deaths since 2015.

The prevention of the death of Elephants by the Electrocution can be handled, with the help of National Board for wildlife which was lead by the ministry of environment and forest has developed a strategy for long term planning of the electrical grid works.

- 1. Burying transmission lines,
- 2. Reinforced electric poles, prevent elephants from rubbing.
- 3. Lifting overhead power lines.
- 4. Dismantling of defunct solar-powered fences.

Human-Tiger Conflicts

When wild tiger comes into contact with the landscapes dominated by the humans, they only pose a threat to the preying livestock and less commonly to the people. The deforestation is one of the critical factors in a massive scale in a country like India when the unparallel exploitation of natural resources and the enormous expansion, the real estate have meant that a large section of the wildlife finds it challenging to find the needs such as food water and shelter.

India, with the flag bearer, leads with 70% of the worlds tiger population. The tiger reserve in the country like India having conservation of about 2.4% of its geographical area. Due to the unsustainable land use, vast human settlement and cattle herding the tiger conflict with the human.

The natural habitats of animals are being reduced, which directly impact on the habitation and food. These make the wild animals attack on the livestock by coming into the human settlements. In 2016, Uttarakhand where a large number of development projects have led to the animals step into the Human settlements. Villages like Amagon near the Bor Tiger Reserve and Wardha district, where people are in fear of tiger which would come out at any point of time and kill human or animal life.

In Summers, where there is lack of food and scarcity in water for both animals and human beings, people near to the forest goes to into the woods for water resources which will end up in death by tigers as they would catch them instantly. Also, the tiger can attack the humans in

⁵⁹ NBWL (National Board for wildlife)

case of mistaken identity (for example: if human enters to collect the firewood inside the forest) if a human accidentally goes to a sleeping or feeding tiger (particularly tigress) the tiger may attack and kill.

<u>Man-Eating Tiger</u>

In some cases, the tigers will change their natural diet and eat human beings called the maneating tigers. The incapacitated by gunshots wounds, porcupine quills, health issues, and disabilities are the factors that lead tigers to eat the man. The inability of the tigers to take traditional prey forces it to stalk to humans who are more comfortable to chase and to kill. The man-eating tigers of Champawat believed that it had eaten the villagers.

Man-eating tigers are the recurrent problem in India especially, the Sundarbans mangrove swamps of Bengal, Kumaon, Garhwal. Most of the man-eating tigers are captured, shot or poisoned. It is sometimes intimidated from the attack of humans, especially with the unfamiliar ones. Tigers wary from humans and show no preference to human meat.

1. The Champawat Tigress

The champawat tigress is the most dangerous and the worst man-eating tigers in the entire history of India. It has killed over 400 people in four years. Jim Corbett shot the champawat tiger after it has killed a 16-year-old girl.

2. The Tiger of Segur

The tiger of Segur is the young male Bengal tiger which has killed five people in the Nilgiri hills of Tamil Nadu. The tiger has been shifted from the district of Wayanad to the Gudalur and between Sigur plateau and Anaikatty in Coimbatore district. It was killed by Kenneth Anderson on the banks of river Segur, in 1954.

3. Tigers of Chowgarh

In the eastern Kumaon division of Uttarakhand the tiger of Chowgarh, who are the pair of man-eating tigers which have killed 64 people in five years spanning an area of 1,500 sq. Miles.

4. Thak Man Eater

It is a tigress from the eastern Kumaon Division which have killed only four human victims. The Jim Corbett hunted the tigress by gunshot in which one becomes septic.

5. Tiger of Mundachipallam

The tiger is the male Bengal tiger which have killed seven peoples in the year 1950s in the village of pennagram. It's just like the Champawat tigress which prevents it from hunting its natural prey. Kenneth Anderson killed the mundachipallam tiger.

The socio-ecological conservation is required for the wildlife, especially in respect to the tiger population in the country which flags the species and cultural icons fr the rainforests and the biodiversity protection.⁶⁰ The tigers are the brink of extinction, having undergone steep declines due to the habitat loss, killings and Poaching of tigers.⁶¹ The conflict between the humans and tigers has rooted its socio-economic conditions in Sundarbans delta as the per capita income is estimated at less than half the state average.

Tiger Reserves and conflict

When the project tiger was launched in 1973, there were only nine tiger reserves. But today as per The NTCA⁶² India has around 50 Tiger Reserves governed by Project Tiger, covering 2.2% of India's geographical area. The Country has 80% of the tigers in the world. The area outside of the tiger reserves or protected areas has decreased considerably. The existing tiger reserves represent around 1/3rd of India's high-density forest area. The NTCA with WII⁶³ has the independent management of all the tiger reserves in the country. With 526 tigers Madhya Pradesh leads with 1.5 years age group. Uttarakhand 442, Karnataka 524, Tamil Nadu 229, Maharashtra 190, Assam 167, Kerala 136 and Uttar Pradesh with 117 tigers with them.⁶⁴

India's Tiger reserves are now saturated, and the government needs plan to manage the excess tigers to exercise minimise the risk of Human Tiger Conflict. The Prime Minister has announced in the last July the tiger population has increased by 33%. The Protected Areas of the tiger are entirely saturated, and there is no space for more tigers, adding any more tigers can lead to the Human Tiger Conflict.

It has been saying to make the tiger double in numbers by 2022. if that's the situation, it will become more severe and also India does not have enough protected areas to accommodate more tigers. Out of 71,027 Square Kilometer, 40,340 Square Kilometers is the core tiger habitat while rest area is the areas of 'Buffer 'Forests. These buffer zones are created for keeping a distance between the Human settlements and Tiger Habitats. If the tigers start to inhabiting in those peripheral areas, the chances of stepping into the villages by the tigers will increase. This will lead to the death of many livestock and humans and also people will start killing tigers for their protection which will decrease all the tiger, human, other animals.

What we want to do is to build such tiger reserves or corridors which would allow the tigers to pass through the reserves from one reserve to another reserve. When such free movement has been allowed then the genetic pool of the animals to remains diverse and as a result of that different population of the tigers mate with each other. In the absence of such free movement, the animals of the same area will indulge inbreeding, and it may lead to some significant illnesses.

India's tiger habitat is classified into five landscapes

1. The Shivalik Hills and Gangetic plains

⁶⁰ Ripple. W.J. et al. status and ecological effects of the world's largest carnivores. Science (343) 1241484 (2014)

⁶¹ Goodrich, J. et al. *Panthera* Tigris

⁶² National Tiger Conservation Authority.

⁶³ Wildlife Institute of India.

⁶⁴ India's Tiger Population rises. Deccan Chronicle 15 January 2015.

- 2. The Central and Eastern Ghats.
- 3. The Western Ghats.
- 4. North-East Hills and the Brahmaputra and,
- 5. The Sundarbans.

The Eight states(Andhra Pradesh, Telangana, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha and Rajasthan consist of Central and Eastern Ghats which comprises of 35% of the tiger population which has increased to 50% from 688 in 2014 to 1,033 in 2019. The North-Eastern Hills and the Brahmaputra reported being 9% increase from 201 in 2015 to 219 in 2018. The Sundarbans reported that an increase of 16% from 76 to 88 during the same period.⁶⁵ The government of Madha Pradesh and Maharashtra are already removed villages from the buffer zones which have helped these states to increase the tiger population.

The Tiger population has been increasing at a rate of 6% per annum from 2006-2018. In most recent India's tiger population has increased from 33%, I.e., from 2,226 in 2014 to 2,967 in 2018. Since 2006 every four years, the government used to survey tigers. This is the fourth assessment of the tiger and its habitat. Madhya Pradesh had increased by 71% from 308 tigers in 2014 to 526 in 2018, the most in India. Chhattisgarh showed a decline of 59% from 46 in 2014 to 19 in 2018. The tiger population has been in constant in Odisha with 28 during the last four years to 2018.

As the protected areas and the reserves are invaded, the increase in contact with the human. In July 2019 a Tiger was run over, and another tiger was beaten to death in the same month in Uttar Pradesh, and another tiger was spotted jumping over the four-line highway which is a result of the expansion of the road through tiger corridors. As of July 29th 2019, there has been an increase in the number of " protected areas" and "community reserves" across the country. The protected areas have been increased from 692 in 2014 to 860 in 2019 and the community reserves to more than 100 from 43 in 2014.

India's Tiger population has increased double over 12 years of time from 2006-2018.⁶⁶ This data has been done by the government covering an area of 3,81,400 Kilometer of forested habitat across 20 states which is the world's largest Tiger Population. If the government choose between the wildlife and the considerations and infrastructure, mining the Tiger and other wildlife habitats will get short shrift.

In May 2019, the Central government exempted 13 railway projects from environmental approvals because even though we can see in the four of the projects goes through either, National park, Sanctuary, Tiger corridor or Tiger Reserve across the states of Uttar Pradesh, Madhya Pradesh and Karnataka. At this point in time, we can say that the current model of reserves and protected areas only looks at the participation of the local communities and that through the protected areas voluntarily. There is no incentive which is to be provided to them, but they're not happening. So, there is a need to generate an excuse to have the goodwill of the Tigers in the country like India.

⁶⁵ Status of Tigers In India 2018

⁶⁶ Released by the Government of India, Ministry of Environment and forests.

Tiger Poaching In India

" The market for poaching activities has not yet disappeared and is very much alive."

The WHO⁶⁷ Has recognised that the traditional medicine in China, so it is a significant threat of these species which are in the trade. Although the most significant efforts are made reserves safe from poaches still in India, tigers are losing in large numbers every year. The forest department has the training programmes that will cover long lit of subjects including legal aspects, anti-poaching issues, crime control, forensic and wildlife management.⁶⁸ By using more patrolling vehicles, anti-poaching camps, monitoring tigers with the GPS and using of new technology the efforts are increasing by the forest department to strengthen their protection of tigers from reserves and others protected areas.

Despite this protection given to tigers against the poachers, between 2012 and 2018, 657 tiger deaths were reported in India, most of the i.e., 48% or 313 tigers are died due to natural causes, and 21% or 138 tigers are due to poaching activities.⁶⁹ Of these 138 poaching activities, the deaths of the tigers are from the states of Madhya Pradesh 225 or 30 tigers followed by Karnataka 24 tigers and Maharashtra 18 tigers have been poached in India. This number of 138 seems to be small, but it's a significant problem to the Indian tiger population as tomorrow it can be increased to a more substantial amount.

By the combination of climate change and rising sea levels threaten the last remaining habitat as the Bengal Royal Tigers would vanish in the next 50 years by 2070.⁷⁰ The decline of the tigers for their illegal parts, hunting and habitat loss three of the eight subspecies have already become extinct, with remaining five either endangered or critically endangered as of March 2019. The tiger body parts and butchering of the tiger is a status symbol of becoming famous and wealthy in Chinese, and they have used the body for medicinal purposes.

Even though you can see that the indigenous tribes in India who live with the tiger feels that the tigers should be protected as they are sacred. In their view Hindu religion, where the tiger is depicted transporting famous goddess Durga. Modern conservationists have been helping India for their tigers saved from poachers and grow their populations. Unfortunately, the influence of the Chinese market which creates more money for the tiger skin and other body parts, there is a significant trade of tiger products in the Indian Black market.

Most of the time, not only the local people who are responsible for the tiger poaching as because it is an organised crime and the gangs will be there for the poaching of tigers. For them, tigers have already become an integral part of the wildlife trade through them the business happens to what is known today as a well known international crime syndicate. In contrary to common belief, the weapons used by the poachers will be sophisticated weapons to slaughter tigers. The poaching gangs will use the jaw traps, and tigers are not shot to death because the bullet holes will damage the pelt.

⁶⁷ World Health Organization.

⁶⁸ Rust, 2016

⁶⁹ National Tiger Conservation Authority.

⁷⁰ Science of the total environment

In Kerala, the wild elephants, Leopard and the boars are very frequented which comes into the human settlement and raid the farms on the forest fringes at places like Pathanamthitta. The wild animals which come into the human settlements actually which are forced to leave their territories when it has been disturbed by nature. It has been coming to the settlement in search of food and water. When humans encroach into the forest for their use such as farmlands and resorts, it's the wildlife habitat that is lost such that humans are creating the danger to other wildlife animals too; it's also can be said to be a type of cruelty against the animals.

When the excessive human intervention has led to the depletion of the forest cover and many lands that is on the part of the forests, the Granite quarries on the forest borders have changed the forest and its ecosystem as well as the wildlife habitat drastically. Also, extensive quarrying has resulted in groundwater depletion. The wild animals never stay away from their habitat only such intervention of human makes them leave their habitat which causes many problems to animals as well as other people as it will create a conflict within the human and animals,

Officially the forest cover of Kerala is about 11,309 square Kilometer which is about 29.1% of the total state's area. Out of this 9,107 square kilometre comprise of reserve forests and 1,837 square kilometre ecologically fragile and vested forest lands. The forest officials of the Kerala forest department says that nearly 800 elephants are spotted near the river Kabani, as the summer rises the need for water and food increases. The Wayanad the wildlife sanctuary is located has been an epicentre for the human-wildlife conflict in recent years. During the drought season, many animals and birds travel hours in search of food and water. Unfortunately, the forests are declining nowadays due to deforestation, climate change, forest fires, change in land pattern and urbanisation.

The elephant, tiger and leopard attack on the residents are rising at a high level. The cropraiding and manslaughter by the elephants are also increased, not only the elephants' animals like wild boars, monkeys and even bats. For instance, when we look at the Monkeys, which enter into human fields eat fruits and vegetables which are grown in the farmlands of the farmers, they even attack the humans especially children, they also destroy the vehicles and other things. 29% of the Tigers and 67% of the elephants live outside the Protected areas.⁷¹ This is one of the problems that India is facing today because of the humans itself. And in the district of Wayanad where the forest cover is more bearing the unfortunate occurrences.

Revisiting the conservation policies, investments by the people and organisations are the only way for resolving human-wildlife conflicts. The future of conservation will depend on locally relevant interventions which will help and sustain human beings. Reports say that more than 400 people annually die in India in Human-wildlife conflict.

⁷¹ Survey from the Wildlife Institute of India (2016)

CHAPTER-4

International Legal structure and conventions for the protection of wildlife trade and its products: its impact in India

Before going into the aspects of the International legal structure, conventions for the protection of wildlife, we must understand the International Wildlife Legislation. Law which makes us know about the enhancing role in the conservation of wildlife and other species in the world. The international wildlife law is a tool that can be used to enhance protection. There are many illegal activities that are going around the globe against wild animals. To overcome and make the wildlife a healthier life in their habitat internationally, the International wildlife law has been implemented.

INTERNATIONAL WILDLIFE LAW

The conventions like (CITES) Convention on International trade in Endangered Species, (CMB) Convention on migratory birds. (CBD) Convention on Biological Diversity, the Ramsar protocol, the World Heritage Convention and the regional conventions are focusing on countries like Africa, Antarctic, or Europe. The international wildlife agreements which focus on particular species of animals such as Polar bear, Albatrosses or any other (TBPA) trans-boundary protected areas which are ecologically protected areas which creates boundaries between more than one country or sub-national entity. Such areas are also known as (TFCAs) Tran frontier conservation areas or peace parks. These Agreements are collectively known as *International wildlife law*.⁷²

Due to the sovereign states conclude agreements on a voluntary basis in an international legal order, the lack of centralized legislative, executive, and judicial powers typically of domestic legal orders have limitations because the international law occupies an even smaller place within the conservation. To have a valid international legal instrument must have a clear cut and adequate commitments and ensure a sufficient degree of compliance.

There are many positive conservation outcomes produced by the International legal instruments which include;⁷³

- (a) Protected areas were pursuant to international obligations.
- (b) Instigated national legislation regulating wildlife exploitation
- (c) it enhanced more priority for conservation issues
- (d) Included technical guidance to national action plans and legislation.

⁷² Bowman et al. 2010

⁷³ Bowman et al. 2010, Gillespie 2011, Fleurke and Trouwborst 2014, Trouwborst 2015, Bowman 2016, Scott 2016)

- (e) Coordinated in the collection of data's.
- (f) Cooperation between government and non-government stakeholders.
- (g) Direct assistance to conservation and funding.
- (h) adverse developments blocked.

INTERNATIONAL CONVENTION ON WILDLIFE PROTECTION: INDIA

The life has been one of the most crucial parts in India since time immemorial such that many of the religions such as Hinduism, Sikhism, Jainism have enshrined this philosophy such that Hinduism has given mythological importance to trees, nature and animals which the other religions also did. The tradition of wildlife in India has a past, through the Vedic period. The customary laws in India say, from ancient times onwards it has thought of protecting animal life and took advantage of protecting endangered species.

The rapid extinction of animals and destruction of wild animals which include rare animals is an increasing concern. The animals are an integral part of the forest and environment diversity, it lacks adequate food, water, habitat etc. which is one of the critical aspects for the increase of endangering of animal species.

CONVENTION ON INTERNATIONAL WILDLIFE TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA, 1973 (CITES)

The convention is an international agreement with the governments for the purpose of ensuring that the global trade in wildlife and other species which should not threaten the habitat and survival. It is an agreement whereby the governments monitor that there is no place for business for the endangered species of animals in India. It also recognizes and seeks to address the dangers and open trade among the wildlife populations.

International conventions have a bond with the countries around the world for the protection of wild animals and birds. The international agreements which aimed at the wildlife conservations have adopted two strategies ;

- (a) Relating to Protection of wildlife species and other flora and fauna.
- (b) Concerning Habitat and eco-system

The international trade, as we said about this in an earlier chapter, has been increasing in day to day life. Its one of the serious crimes around the world which makes a small amount in India too. So for the protection of the trade among the wild animals India has been a significant part in the CITES (Conservation on International trade in endangered species of wild flora and fauna) India has also a vital role in the IUCN International Union for Conservation of nature and natural resources) which has has been passed for regulation for

the export, transit and import of rare or threatened wildlife species or their skins and trophies is also aimed at the field of nature conservation and sustainable use of natural resources. Its mission is to influence, encourage, and assist societies throughout the world to conserve nature. The IUCN has a role in the wildlife conservations too, and it gives out the red list of threatened species which is the world's most comprehensive inventory of global savings of plants and animals. In all regions across the globe, the IUCN's quantitative criteria that are used to evaluate the risk of thousands of species of plants and animals around the world.

India, as a member, from earlier time onwards, pleaded international support from the CITES. It monitors the interstate trade of wildlife trade in products through the CITES Certificates issued by various parties if the regulations are violated by the parties in India the provision vests on the Customs Authorities who empowered to decide those cases of violation of CITES.⁷⁴ As the basic principles of the Cites are straight forward, the strong conservation ethics has been retained by India in its both domestic and international policy on wildlife, which is the part of country's history and tradition.⁷⁵

The convention is a protectionist treaty in the sense that it prohibits (with few exceptions)

- (i) International commercial trade in species threatened with extinction.
- (ii) It controls the International business of animal species which has not become threatened, but may become threatened later .
- (iii) The party who has domestic legislation in exports of species mentioned in the Appendix I or II can seek support from other parties in ensuring its own domestic legislation.⁷⁶

International trade in these species will be only permitted with the proper documents which have to be issued by the government of the exporting country.⁷⁷ The species in Appendix-II shall require prior grant an export permit by the state which has to be advised that such export permit

- (i) Will not detrimental to the survival of that particular species.
- (ii) The authority should satisfy that the specimen was not obtained by infringement of the law for the protection of floras and faunas of the country.

⁷⁴ See, S.C. Sharma, Wildlife Crime- Origin and Emerging Trends, CBI Bulletin, May 2001, p 5

⁷⁵ See. Rajan Dahiya, Wildlife Protection Laws- Purpose and implementation, CBI Bulletin, May 2001, p 45.

⁷⁶ See, Ravi Sharma Aryal, CITES Obligations: Is Wildlife (protection) Act, 1972 capable to deal with it? National Capital Law Journal, Vol. (5), 2000, p 76.

⁷⁷ See, Sanjay Upadhyay, Videh Upadhyay, Forest Laws, Wildlife Laws and the Environment (2002), p 310

(iii) The shipment will carry a minimum risk of injury and damage to the health or cruel treatment of animals.⁷⁸

Appendix-III which is meant to provide a mechanism whereby a party nation which regulates trade in a specific or any species not listed in Appendix-I or it can seek international help for enforcing that regulation.

The contracting parties should also take appropriate measures including the provisions for the penalty to prohibit trade in the specimens of species and to implement the rules of the convention. It also makes that the main conditions for business, taking possession, or transport of samples which are included in the appendices of the agreement.⁷⁹ The CITES conference takes place at an interval of two years. It elects standing committees and the committee on animals, plants nomenclature and identification manual.

CITES secretariat communicates, (apart from assisting parties)

- (i) The world conservation Monitoring Center
- (ii) IUCN
- (iii) Species Survival Commission (SSC)
- (iv) WWF.

The resolution which is proposed at the conference of the parties which may up list or downlist species based on international trade data and categories of threat.the results of the adopted proposals comes into effect within 90 days. The non- political parties can also take part in the debate but cannot vote. From India, the only non- governmental organization that contributed to the CITES process for many years is Wild Life Trust of India.⁸⁰

IUCN (The International Union for the Conservation of Nature)

IUCN is an international body working in the field of nature conservations and sustainable use of natural resources. It is involved in

- (i) Data Collection
- (ii) Data Analysis
- (iii) Data Research
- (iv) Field projects or surveys.
- (v) Advocacy

⁷⁸ See, International Wildlife Law: CITES, Simon Lyster, (2000), p240.

⁷⁹ Supra note 21, Art. II, VIII, XIV.

⁸⁰ https://www.wti.org.in/

(vi) Education.

The mission of *IUCN* is to influence, inspire and assist the communities around the world in conserve nature and to ensure that all the natural resources are equal and environmentally sustainable. It is an organization widely known for compiling and publishing *IUCN Red list of threatened species*⁸¹, which assesses the conservation status of species worldwide. The IUCN has more than 1400 governmental and non- governmental organizations around the world which has 16,000 scientists and experts working on a voluntary basis. It has an observer and consultative. The IUCN is the world's foremost authority on conservation of species. It has more than 77,300 species, in which 41% of which are Amphibians and 33% are of coral reefs.

The main objective of the IUCN is to achieve goals on ;

- (i) Providing scientific data on the status of species and sub-species at a global level.
- (ii) Addressing the cause of concern and raising consciousness about species and biodiversity extinction.
- (iii) plan a layout for the biodiversity conservation

The Man purpose of the IUCN Red List Data:

(i) International Agreements such as CITES, Ramsar convention use the data from Red List data to make essential decisions in accordance with the status of nature as and when they required.

(ii) World Bank Group performance standard uses the IUCN Red List data to evaluate the risk of damage to biodiversity due to large scale infrastructures and global projects.

(iii) Zoos and National parks use this information to upgrade relevant policies like parks regulations from time to time.

The IUCN Conservation plan for 2020:

- 1. For providing protection for our biodiversity, there will be a focus plan which will track species and educate the world about the status and patterns of the biodiversity.
- 2. It aims to enhance science-based as well as collaborative strategies that will ensure the most effective species conservation actions.
- 3. By involving the public sector, governments, educational institutions and civil society, it has the idea to improve the Biodiversity.

⁸¹ https://www.iucn.org/resources/conservation-tools/iucn-red-list-threatened-species

4. Through strategic and targeted communication the IUCN's, species conservation should be made effective.

THE AFRICAN ELEPHANT CONSERVATION ACT, 1989

The African elephant's Conservation Act is federal legislation which is enacted to protect and perpetuate healthy populations of African elephants. It authorizes

- 1. The financial assistance for the elephant's conservation programmes.
- 2. Moratoria on Ivory Imports (Specific criteria are not met).
- 3. It requires and collects annual report
- 4. It Creates civil and criminal penalties for illegal ivory import and export.
- 5. Exempts sport-hunted Elephant trophies and allows payment for a reward.

The Act places a restriction on Ivory imports :

- 1. Importing raw Ivory from any country is restricted, other than an Ivory producing Country.
- 2. In violation of that country's law or CITES Ivory Control system, Import of raw or worked ivory is restricted.
- 3. Importing Ivory, unless the country has certified that such ivory was from a legal source.

4. Importing Ivory from a country where a moratorium is in effect, and all are prohibited under

the Act.

While humans have been poaching animals, African elephants have been stolen for many centuries for their tusk. The continent is at risk of elephant slaughter which is a worse situation in history. The conservation experts say that if the position is like this that tens of thousands of elephants are poached then, it will become extinct within years. The rising demand for Asia and increase insecure demand from political environments in Africa have retched up many elephants under threat apart from 1990, the ban on the international sale of ivory.

In the year 2016,⁸² IUCN reports say that due to poaching activities for Ivory, the African Elephants population has declined to the worst in the last 25 years. It has half fallen in the parts of east-Africa. Botswana has the home for more elephants than any other African Country. Southern Africa remains the stronghold for 2,93,000 or 70% of the estimated African Elephants.The Kavango Zambezi Transfrontier Conservation Area(KAZA) is the world's most significant conservation landscape, which as more than half of the African elephants.

⁸² https://www.worldwildlife.org/magazine/issues/winter-2018/articles/the-status-of-african-elephants

INTERNATIONAL REGULATIONS OF WILDLIFE TRADE

"THE GREATNESS OF A NATION AND ITS MORAL PROGRESS CAN BE JUDGED BY THE WAY ITS ANIMALS ARE TREATED"⁸³

When we say that the progress of the nation is on its animal's treatment, there are many illegal things that are happening towards animals in the world. With the overexploitation and Restrictions on international movements, the Wild animals are at the brink of extinction or death or spreading of diseases. For the prevention of spreading diseases, animal health legislation has been strictly applied to wild animals. For transportation , the welfare of animals in the course of trade which requires consideration and relevant legislation. On the basis of international trade, a number of institutions have an impact on the deal itself or on legislation that regulates wildlife.

All the Authorities, Organizations and other concerned with wildlife trade be conversant with the relevant laws because the wild animals are imported across the national boundary which give rise to illegal implications which those people involved in it aware or not or whether they choose to observe or ignore the requirements. By institutions such as governmental or super-nationals bodies, the International trade in wildlife has been regulated. Contribution or influence of these bodies varies from drafting, implementing and enforcing legislation to provide non- authoritative content such as guidelines and codes of ethical conduct or by giving guidance or applying persuasion.

The National Authorities of the individual countries of the particular group of countries conduct the development, implementation and compliance of legislation on animals that cross border movements. The legislations are based on sovereign decisions made at national levels, and all countries are bound by the terms of the international treaties to which they belong and should, abide by their legislations on the provisions of these treaties.

GENERAL PRINCIPLES

Area of law that is the most important in international wildlife trade

- 1. Animal Health
- 2. Animal Welfare
- 3. International Movement of Endangered Species.

More than one piece of legislation is to be applied when on import or export is made by way of shipment. Thus, the international movement of animals which is listed by the CITES⁸⁴ which often requires the authority such as permit and health certification issued under the animal's health controls also, individual countries may have national wildlife legislation which involves the export of indigenous species, which should be expressly authorized by the

⁸³ Quote by Mahatma Gandhi

⁸⁴ The Convention on International Trade in Endangered Species of Wild Fauna and Flora

authority. The federal laws of CITES come from the convention, but the animal's health laws come from the *International Animal Health Code* and *Aquatic Animal Health Code*⁸⁵ there are many other activities that are aimed at bringing about harmonization of animal health legislation both at the national level and through the *World Trade Organization (WTO)* Trade laws.

INTERNATIONAL LEGISLATION

International legislation refers to the world treaties or conventions and agreements that are open to all the countries around the globe. As there are more than 150 countries participating in the CITES, the primary purpose of this s to regulate the trade in the species listed in the appendices which are either by outright prohibition or by monitoring trade levels.

The Convention on Biological Diversity (CBI) or called to be Biodiversity Convention encourages the countries to protect the biodiversity through the various mechanism and manage and reap benefit from their genetic resources.⁸⁶ This has led to international trade in the animal genetic materials affecting certain species, particularly non- human primates. The national convention is designed to control the exploitation of genetic resources; therefore, it impinges upon international wildlife trade.

The WTO (world trade organization) has the responsibility for the regulation of international wildlife trade.⁸⁷ Sanitary and Phytosanitary Measures (SPS Agreement) which has been ratified in 1995, clearly states that the import measures cannot be discriminatory, nor constitute unjustified trade barriers. The OIE (World Organisation for Animal Health) has set up the standards for terrestrial and aquatic animal health and zoonoses upon the import from the base countries.⁸⁸

REGIONAL LEGISLATION

The European Union (EU) and the Council of Europe are the two examples of regional legislations that occur in Europe in which the Europe Union is primarily a commercial and political union. The EU legislation takes two primary forms (i) Regulations and (ii) Directives. The EU countries, CITES is implemented by way of regulations which provide for the implementation of the rules in each country. Directives are addressed to member states, which require them to implement the provisions of the instruction by legal or

⁸⁵ International des Epizooties (World Organisation for Animal Health)

 ⁸⁶ Glowka L., Burhenne-Guilmin F. & Sygne H. (1994). – Aguide to the Convention on Biological Diversity. The WorldConservation Union (IUCN), Gland and Cambridge, 161 pp.

⁸⁷ World Trade Organization (WTO) (1995). – The results of theUruguay Round of multilateral trade negotiations, the legaltext: Agreement on the Application of Sanitary and Phytosanitary Measures. WTO, Geneva, 69-84

⁸⁸ Office International des Epizooties (OIE) (2000). – Diagnosticmanual for aquatic animal diseases, 3rd Ed. OIE, Paris, 237 pp.

administrative means. The animal health legislations primarily takes this form and is put into effect in the laws of individual countries. The European conventions are open to adoption for countries outside its members which have created several European conventions on animal protection and conservation.

Other examples of the Regional Harmonization of regional treaties :

- 1. The local trade agreement between U.S.A , Canada and Mexico North American Free Trade Agreement (NAFTA)
- 2. The regional trade agreement between Argentina, Brazil, Paraguay And Uruguay MERCOSUR.
- 3. The regional trade agreement between cooperation among 16 southern African countries -The Southern African Development Authority (SADC).

ORGANISATION CONCERNED WITH INTERNATIONAL TRADE IN WILDLIFE

There are many national and international organizations which are concerned about the international wildlife trade. While the regulation of international trade in wildlife originates from governments, other organizations are also contributing towards the goal. The predominate consideration of WTO and SPS Agreements controls the animal health affect the animal trade because the Agreement and Cites relationship have not yet been ascertained.⁸⁹The FAO (Food and Agriculture) and CITES have overlapping interest that has been a risk to the species in the international commercial fishing.⁹⁰ The OIE (World Organisation for Animal Health) is responsible for setting criteria, guidelines and recommendations on the health and well being of aquatic animals through *International Aquatic Health Code*.⁹¹

WORLD TRADE ORGANIZATION

Before 1948, the animal health through the General Agreement on Tariff and Trade (GATT) has no such rules but afterwards, its subjected to the agreement. The agreement has not developed primarily for the purpose of regulating animal health measures. The deal also agreed to notify that the other governments, through GATT secretariat of any technical, regulations which are not based on international trade.

⁸⁹ Harrop S. & Bowles D. (1998). – Wildlife management, the multilateral trade regimen, morals and the welfare of animals. int. Wild I. Law Policy, 1(1), 64-94.

⁹⁰ Food and Agriculture Organization (FAO) (2000). – An appraisal of the suitability of the CITES criteria for listing commercially-exploited aquatic species. FAO Fisheries Circular No. 954. FAO, Rome, 66 pp.

⁹¹ Office International des Epizooties (OIE) (2001). –International aquatic animal health code, 4th Ed. OIE, Paris,155 pp.

National legislation for animal welfare does not hinder the SPS agreement by only making stricter than international standards; in fact, the agreement explicitly permits governments to impose more stringent requirements. The SPS Agreement not only makes the safety standards impacting trade but also the basis for challenges to those requirements.

Although the WTO and SPS Agreements does not explicitly mention the protection of environment or animal welfare, it can be interpreted that the provisions of the Agreement aim at the protection of the life and health include fee living animals and plants of the species covered in the Agreement. There have been challenges in environmental protection or animal welfare measures under GATT-WTO Agreements.⁹² And there are many questions including the relationship of the conservations treaties such as CITES , who are yet to be answered.⁹³

NATIONAL IMPORT AND EXPORT

For the measures for not spreading animal diseases when moving between countries, it is usually necessary to comply with the legislation of the countries involved. The law generally applies to economically and zoonotic relevant animal diseases. The principal or primary importance is to protect the livestock and companion animals. Such provisions may also refer to the non- domesticated species when they fall into the relevant laws. As the Reptiles contains Pathogenic materials or potential role as intermediate or winning hosts from particular pathogens such as *equine encephalitis* viruses its movement are rarely affected.

The legislation applies not only to the live animals, animal products (used for food and other purposes) but also as pathogenic, which is having an import control. Thus, the transfer of Medical or DNA Samples also require an authorization, or maybe subjected to restrictions. The Export and Import vary from country to country, as do the national levels of control and surveillance. The OICE also set goals of general standards of import and export of procedures of animal health which countries should comply and are used by the WTO in trade regulations.⁹⁴ The export of animals and animal products are subjected to verification and are certified by an official veterinarian in order to risk out from the specified diseases of animals and animal products of that area of origin. Animals are quarantine before departure on import of the animals and animal products the veterinarian s will check at the entry gates or the border posts accompanying documentation.. these involve custom checks too. animals that are failed to these checks are refused to enter the country, or quarantined or destroyed. Some of the states require exports and import permits to make the trade.

ANIMAL WELFARE

Apart from the CITES conventions which address the welfare of detailed lists for appendices during shipment under CITES Permits, there is no legislation which is based on the

⁹² Kennedy K. (1998). – The GATT-WTO system: environmental friend or foe? J. int. Wild. Law Policy, 1(2), 217-258.

⁹³ Harrop S. & Bowles D. (1998). – Wildlife management, the multilateral trade regimen, morals and the welfare of animals. J. int. Wild . Law Policy, 1(1), 64-94.

⁹⁴ Office International des Epizooties (OIE) (2001). –International animal health code: mammals, birds and bees,10th Ed. OIE, Paris, 485 pp.

protection with global application. Many countries have legislation relating to the welfare of animals. The laws made by these are from highly developed countries and are considered to be implemented in developing countries or where it is minimal or non- existent.

CITES, they keep the terms of the provisions strictly and when the CITES specimen is taken up to the point that animals travel under CITES Permit is when the problems that occur during the phase of such trade.⁹⁵ Where the Codes, the International Air Transport Association (IATA) regulations and CITES Guidelines are not legislation but given in the country's national laws, such guidance and regulations for the transport of animals through the air will be made in due care and accommodation to be used for such air transport to almost all the animal specimens.⁹⁶ When countries incorporated with the laws or regulations or guidance, they can automatically enforce it in their national laws.

There are several provisions at the regional levels in Europe. Freeing living wildlife rarely features in animal welfare legislation, but most of the species are covered while kept in captivity. There are also directives that to protect the wild birds and conserve the wildlife and habitat which limits or restricts trapping and hunting methods. Welfare laws have a base that animals are not to be treated illegally or cruelly. Most of the legislations are more than 100 years old, which are periodically revised and improved on the light of modern practices and international or national legislation. These welfare legislations are applied occasionally to the free-living wildlife through conservation, hunting and trapping laws incorporate protection in the breeding season and restrict inhumane or unfair hunting and trapping methods. While most of the rules on transportation are designated for domestic animals, there are some laws which make provisions for the non- domesticated too. for the well being of the animals that are transported during the time of transportation, it should be noted that. For example, the provisions for food and water and stops for rest are made available to the animals or not. Even in the absence of the legislation, non-statutory guidelines are implemented for the welfare of the animals and their practices.

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES

The CITES as all know that is a global treaty, membership which is available to all governments of the world.⁹⁷ the convention opened in 1973 and entered into force on 1975 July 1st. by December 2001 there are more than 155 countries, and by 2020 it has 183 countries worldwide, India is the 25th country to join the CITES on 20th July 1976.⁹⁸ It

⁹⁵ Wijnstekers W. (2001). – The evolution of CITES, 6th Ed. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Geneva, 499 pp.(http://www.cites.org/common/docs/Evol_2001.pdf.,document accessed on 24 January 2002).

⁹⁶ Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (1980). – CITES Guidelines for transport and preparation for shipment of live wild animals and plants. CITES Secretariat, Geneva, Unipub, 109 pp.

 ⁹⁷ Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (2000). – Convention on International Trade in Endangered Species of Wild Fauna and Flora. CITES Secretariat, 28 pp.

⁹⁸ https://www.cites.org/eng/disc/parties/chronolo.php

Became party to the convention (also known as the Washington Convention).⁹⁹ The convention also applies to the situation in which CITES-listed animals are moved across the boundaries. While the animals remain in the territory of a country, the national legislation is relevant and CITES are not relevant here.

Operating Mechanism

The member states meet every 2 years at the conference in order to carry out the duties specified in Article XI of the convention.

- 1. To deal with the fiscal matters
- 2. To make procedural rules
- 3. To review the working of the convention
- 4. To make amendments to the appendices
- 5. To address other issues put to the conference.

There are four permanent committees of CITES that continue the work generated at the conference: the standing committee, the committee on animals and plants (technical matters) and the nomenclature committee. At the national levels, under Article IX, the parties are expected to appoint a management authority to be responsible for the administration of CITES.

Permit Procedures for samples

According to the CITES species, the permit is one of the necessary procedure to control it. There have been questions about a variety of difficulties and delays in the permit procedure which have arisen when the sample is taken from CITES animals to another country. Delay in particular to those used for veterinary diagnostics and treatment, health monitoring or law enforcement can be detrimental to species that CITES is intended to protect.

Some sample that has taken from the CITES Species are sent abroad in enormous numbers(for DNA Analysis) that they take up an undue proportion of the resources of the management authority. The non- commercial, time-sensitive samples that have been taken for reasons such as veterinary diagnostics and treatment. Recommendations for the procedure are to be made at the next party meeting, likely based on fast-track systems.

Regulation of movement of species

The CITES Species movement across the globe must be authorized by the CITES Permits issued by the authority in the particular country involved.

⁹⁹ From place where the Convention has concluded.

Permitted trade in Appendix I Species

Appendix I are the list of species that are most endangered ones among the CITES-listed animals and plants. They are endangered and CITES, prohibits international trade in these specimen of these species except for the purpose of the import is not commercial for instance, for scientific research. In these exceptional cases, the business may take place provided it is authorized by the granting of both an import permit and an export permit.¹⁰⁰

The purpose of the Convention is to regulate trade in the CITES Species which does not entirely prohibit the legislations. Appendix I Specimen that has been in captivity to be classified as Appendix II Species for commercial purposes, thus allowing them to enter into trade. The species in captivity of the non- commercial purposes can be moved under a CITES Certificate.

In many Circumstances, both the commercial (for the gain and economic benefit) and noncommercial purposes (scientific, conservation and exhibition)which are bred in captivity, recognizes that the controlled trade and sustainable use can protect and benefit the wild populations of endangered species. The IUCN Crocodile Specialist Group (CSG) has reported that many of the crocodile species have been saved from extinction by allowing captive breeding, sustainable use and trade in crocodiles and their products.

In case of crocodile, CITES has transferred specific populations of Appendix I Species to enable for the ranching (i.e. rearing in a controlled environment of specimens from the wild) and trading of such species. Arising initiatives in 1994, joint meetings for government, police, customs and NGOs on the subject of wildlife law enforcement were held annually.¹⁰¹ Improvement in the quality of wildlife law and enforcement and has the working groups on specific subjects, such as forensics, training and access to information.¹⁰² CITES protection of wildlife, animal welfare, animal health, customs and other offences are often interrelated, and an illegal incident may involve a number of these areas of law.¹⁰³

WILDLIFE MOVEMENT AND TRADE AS A WILDLIFE CONSERVATION PROBLEM

The Motion of the Wildlife around the world is a severe problem and consequences for the maintenance, integrity, and diversity of natural ecosystems for the wildlife and their

¹⁰⁰ https://www.cites.org/eng/app/index.php

¹⁰¹ Department of the Environment, Transport and the Regions(DETR) (2001). – Proceedings of the 2000 National policewildlife liaison officers' conference, 6-8 October. Departmentof the Environment, Transport and the Regions, London,116 pp.

 ¹⁰² Partnership for Action against Wildlife Crime (PAW) (2000).– Working group reports.
In PAW Bulletin(N.P. Williams & J. Withey, eds). The Global Wildlife Division,

Department of the Environment, Transport and the Regions, Bristol, 7.

 ¹⁰³ European Commission/TRAFFIC Europe/ World Wildlife Fund (EC/TE/WWF) (1998). –
Reference guide to European Community wildlife trade regulation. EC/TE/WWF,
Brussels,125 pp.

constituent species.¹⁰⁴ The consequences are due to the intentional introductions and accidental spread of wildlife such as rabbits, foxes, possums, deers, mustelids and cats or unintentional introduction of rats¹⁰⁵ to the inadvertent disease, such as the introduction of malaria into Hawaii, which devastated native bird species.¹⁰⁶

With the extinction of the animals because of the loss of the biodiversity, habitat and modification is one of the four significant natural losses.¹⁰⁷ Due to the introduction of Harmful animal or bird species makes the habitat and other species decline significantly¹⁰⁸ the species have become extinct in the biodiversity is due to the direct exploitation and overuse of wild species, for example, dodo (*Raphus cucullatus*)¹⁰⁹ The effects on the wild animals during the wildlife movements from the natural world can produce a direct impact on the species by reducing the wild populations of Spix's Macaw (*Cyanopsitta spixii*) to a single specimen, which becomes extinct in the wild.¹¹⁰ Many countries have quarantine laws to protect and restrict the spread of the disease, although, in some areas, customs and restricted practices may be inadequate safeguard species. Finally, the movement of the wildlife may have direct effects on the other species in the ecosystem by predation or by competition for particular resources.

INTERNATIONAL CONVENTION FOR THE REGULATION OF WHALING

The international convention for whaling is an international agreement signed in 1946 in order to provide the protection and conservation of whale stocks. It was signed in Washington D.C. by 15 nations on 2nd December 1946. Its protocol was approved in Washington on 19th November 1956.

The objective of this Agreement is to

- 1. Protect all Whale species overhunting
- 2. The Establishment of a system of international regulations fisheries.
- 3. To ensure proper conservations and developments of Whale stocks.

¹⁰⁴ McNeely J.A. (2001). – An introduction to human dimensions of invasive alien species. In The great reshuffling: human dimensions of alien invasive species (J.A. McNeely, ed.). The World Conservation Union (IUCN), Gland, Switzerland and Cambridge, 5-22.

¹⁰⁵ Sinclair A.R.E. (1977). – The African buffalo: a study of resource limitation of populations University of Chicago Press, Chicago

¹⁰⁶ World Conservation Union/Invasive Species Specialist Group(IUCN/ISSG) (2000). – Global invasive species database(http://www.issg.org/database/welcome/, document accessed on 24 December 2001).

¹⁰⁷ Diamond J. (1984). – 'Normal' extinctions of isolated populations. In Extinctions (M.H. Nitecki, ed.). University of Chicago Press, Chicago, 191-246

¹⁰⁸ Hilton-Taylor C. (2000). – 2000 red list of threatened species. The World Conservation Union (IUCN), Gland, 61 pp

¹⁰⁹ Caughley G. & Gunn A. (1996). – Conservation biology in theory and practice. Blackwell Science, Oxford, 480 pp.

¹¹⁰ Stattersfield A.J. & Capper D. (2000). – Threatened birds of the world. Bird Life International and Lynx Editions, 852 pp.

4. Safeguarding for future generations.

The whaling is a method of hunting whales for their meat, oil and fat.¹¹¹ The hunting of the whale started during the 17th Century and still in the 21st Century it has been an essential part of killing the whales which have made them endangered species around the world. The commercial whaling has been stopped by the International Whaling Commission (IWC) in the year 1986 for the increase of the remaining whale population around the world.

The Whales have been killing by the use of explosive harpoons which is used to pierce the skin of a whale and then it explodes inside the body.¹¹² As whales can take several hours to die, the Anti-whaling groups carried out by the inexperienced gunners hunting makes it very cruel.¹¹³ As the report says, 140 conservation and animal welfare organizations from 55 countries launched the global society to protect animals (Global Animal protection) in March 2013.¹¹⁴ The report stated that 20% of Norwegian and 60% of Japanese who captured the whales failed to die as soon as they were caught harpooned.¹¹⁵ The pro-whaling nations say that the animal welfare measures should not be stick down by the conservationists as the anti-whaling countries do not follow consistently. The whaling industry was supported by the governments of the whaling nations later the ICRW came up in 1946, and in 1949 with the creation of the International whaling commission, it has been made to conserve the whale stocks.

The overexploitation makes the whales go extinct and endangered, which has led to the campaign called to *save the whales*, which highlighted the plight of whales on a large scale.¹¹⁶ There are many other organizations which the governments have been supporting the conservation efforts. The Sea Shepherd conservation society (refers to their ship) aimed to intervene and prevent whaling activities and other forms of poaching to protect marine life. The Humane Society International¹¹⁷ 600 million tonnes of food are taken by cetaceans and pinnipeds in the years compared to 150 million tonnes by humans. There is another study that several stocks of fish and other marine animals decline due to pollution and habitat loss.

In 1982, the International Whaling Commission(IWC) adopted a moratorium on commercial whaling. Currently, Japan, Canada and the number of other countries oppose this

¹¹¹ Blubber means, the fat of sea mammals, especially whales and seals.

¹¹² "Patent Database Search Results: CCL/102/371 in US Patent Collection". patft.uspto.gov. Retrieved 30 May 2018.

¹¹³ Nick Gales, Russell Leaper, Vassili Papastavrou, "Is Japan's whaling humane?" Marine Policy Volume 32, Issue 3, May 2008, Pages 408-412

¹¹⁴ "Brakes, P., Butterworth, A., Simmonds, M. and Lymbery, P (eds.) (2004) Troubled Waters: A review of the welfare implications of modern whaling activities. Foreword by Attenborough, D. WSPA: London

¹¹⁵ "Bass, C.L. and Brakes, P. (2008) Whaling: Defying international commitments to animal welfare? London: WSPA"

¹¹⁶ Ellis, Richard (1999). Men and Whales. The Lyons Press. pp. 434–439. ISBN 978-1-55821-696-9.

¹¹⁷ https://www.hsi.org/

Moratorium. The IWC said that the number of whaling s had depilated a number of whales populations to a significant extent and several whale species are becoming extinct and endangered. The IUCN noted that the Atlantic population of GRAY whales was made extinct around the turn of the eighteenth century.

Whaling the other threats such as radiocarbon dating of sub fossils remains has confirmed that the risk has led to at least five of the thirteen great whales being listed as endangered.¹¹⁸ According to the Cetacean Specialist Group (CSG) of the IUCN, several populations of the southern right whales of many regions, Grey whales in the eastern north pacific, the blue whales in the Eastern north pacific and central north Atlantic have started to show the recovery.¹¹⁹ The populations of many other whales are also increasing.¹²⁰

The whale conservationists say that the *sei whale* continues to be endangered. But the country Japan says that there is a considerable increase in the *sei whale* as in 1978 to 9,000 to 28,000 in 2002 which if the country catches 50 *sei whales* per year it is very safe. The North Atlantic peoples say that the *Fin Whales* should not be made into the endangered species that the list is inaccurate.¹²¹ The IUCN, says that there are only 40,000 people living near the North Atlantic, i.e. countries such as Greenland, Iceland, Norway, where people outside these North Atlantic still hold that the Whale is being endangered.¹²²

CONVENTION AND IT'S IMPACT IN INDIA

India, who is in the twelfth position in mega bio-diversities of the world, is blessed with the rich in natural resources, flora, fauna, etc. The Ministry of Environment and Forests is the nodal ministry under the Government of India for various national and international conventions or treaties related to forests, wildlife and environmental issues. India as such is a member of the significant five International agreements pertaining to wildlife conservations, viz,

- 1. Convention on international trade in Endangered Species of Wild Flora and Fauna (CITES).
- 2. International Union for Conservation of Nature and natural resources (IUCN).
- 3. International Whaling Commission (IWC)

¹¹⁸ "Cetaceans listed as Endangered". IUCN Red List of Threatened Species. Archived from the original on 2018-12-14. *Retrieved 2007-03-19*.

¹¹⁹ Kirby, Alex (2003-05-14). "*Extinction nears for whales and dolphins*". BBC News. Retrieved 2006-12-04.

¹²⁰ Southern right whale population on the rebound". Sciblogs. *Retrieved 23 August 2019*.

¹²¹ "Um stofnstærðir langreyðar og hrefnu við Ísland og flokkun IUCN". Retrieved 2006-12-04.

 ¹²² Cooke, J.G. (2018). <u>"Balaenoptera physalus"</u>. IUCN Red List of Threatened Species.
IUCN. 2018: e.T2478A50349982. doi:10.2305/IUCN.UK.2018
2.RLTS.T2478A50349982.en.

- 4. The United Nations Educational, Scientific And Cultural Organization- World Heritage Committee (UNESCO-WHC)
- 5. Convention On Migratory Species. (CMS).

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FLORA AND FAUNA (CITES) AND INDIA

The CITES was signed in March 1973 to regulate the international trade in endangered species of wildlife. India signed the convention in July 1976. The agreement has 25 articles which state that how and in what manner the deal in species could be regulated as per the Appendix. India apart from participating in the convention, i.e. Conference of Parties (COP), India in 1981 has hosted the third COP in February – March at New Delhi. The Additional Director General of Forests (Wildlife) and Director (Wildlife Preservation) has been designated as the members of the CITES. The enforcing job is carried out by the Regional deputy directors (Wildlife Preservation) who has been appointed to CITES as an assistant.

In August 2019, India submitted proposals regarding the changes to the listing of various wildlife species in the CITES Secretariat meeting in Geneva, Switzerland, in which India listed out the Smooth-coated otter, small-clawed otter, Indian star tortoise, Tokay gecko, wedge fish and Indian rosewood. The country seeks to make its wildlife more strengthen by seeking protection of all the five animal species as they were facing a high risk of international trade. For the Indian rosewood, the proposal made by India is to remove the species from CITES Appendix II. Due to the high threat of international trade and loss of habitat to agriculture and illegal harvesting as pet trade, India among other countries proposed to re-list the Star tortoise to be put in Appendix I from Appendix II. The two otter species, India has also submitted the list to be moved from CITES Appendix II to Appendix I to make it more endangered species. The similar proposal has been made in the Tokay gecko.

INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES (IUCN) AND INDIA

It is a global organization which started in the year 1948. India has been one of the most extended members of the convention and the first country in South Asia to join as a member of the agreement in 1969. It is one of the organizations where governmental and non-governmental organization works together under one umbrella. It has one of the largest networks of the specialist in the field conservation. it is a body observer in the United Nations and advises the governments on the matter of protection.

At present 2020 status, there are more than 1,300 members covering 170 countries as members of ICUN including the ministry of environment and forest, national board for wildlife, wildlife institute of India, Indian Institute of forest management. The project tiger in the year 1973 was an outcome in the IUCN General Assembly. During the first meeting of the national board of wildlife, it was resolved to set up an IUCN regional office at New Delhi.

INTERNATIONAL WHALING COMMISSION

IWC was set up in the year 1946 with an aim for regulating the whaling which was signed in Washington. The purpose was to conserve the Whale stocks. The primary function includes the complete protection of certain species, designate the specified area as whale sanctuaries and also prohibit the whaling and capture of suckling calves and female whales accompanied by calves.

India has been the member of IWC since 1981 and played a significant role in the regulation of whaling and proactive and prominent role in bringing about the moratorium on commercial whaling and has been supporting the commission in its efforts towards conservation of migratory species of wild animals and through the establishment of south pacific sanctuary.

CHAPTER- 5

The Predicament Of Illegal Wildlife Trade In India: Through Lens Of Statistical Data

INTRODUCTION

One of the world's biodiversity hotspots, Indian boundaries allow a wide range of products such as Mongoose hair, Snakeskin, Rhino horns, Tiger and Leopard skins and claws, whiskers, Elephant tusks, Deer antlers, Shahtoosh shawl, turtle shells, musk pods, bear bile, medicinal plants, timber, caged birds such as Parakeets, mynas, munias are the animals that are trafficked. This is the main problem for the endanger of many animals, including the iconic tiger, Rhino, pangolins etc.¹²³

Even as the forest cover is going back, the illegal trade in wildlife is growing very fast in India, where people takes away flora and fauna to fulfil the ever-growing demand for wildlife products in other countries. Unfortunately, India became one of the major hotspots for the Organized international crime for wildlife. Illegal wild animals trade takes place all over the country. The species belonging to the country as well as from other countries are being brought into one country without checking the law or illegality which threatens biodiversity and conservation in the wild.

From birds eggs to marmosets, and a moth to tiger, a large number of wildlife species bear same price tags put on them by poachers and illegal traffickers. Even Elephants can be brought for several different purposes and are still offered for sale illegally in many places like Sonepur and Sitamarhi in Bihar. As the world's second-largest exporter after China, India has a very high impact of Medicinal plants conservation. However, the current policies do not support it.

Natural resources and Habitat of the wildlife have been abused by humankind for their needs, such as for their food, clothing, medical and for their entertainment. Across the years, the disproportionate use of natural resources has resulted in wasteful and cynical degradation of the ecosystem around the world. The exploitation by hunting for trade and pet collection is the second greatest drivers for declining populations of many endangered species, impacting mammals(33%). Birds(30%) and Amphibians(6%)¹²⁴ India's biological resources are threatened by the illegal trade in various species, especially large carnivores which in turn upsets the balance of the ecosystem. One of the main problems of Wildlife trade is the

¹²³ http://awsassets.wwfindia.org/downloads/traffic panda 8 oct.pdf

¹²⁴ IUCN, <u>https://www.iucn.org/news/species/201907/unsustainable-fishing-and-hunting</u> bushmeat-driving-iconic-species-extinction-iucn-red-list

difference in the legal status of wild animals in various countries. For example, A Star tortoise is protected under our Wildlife Protection Act, 1972. Still, in many countries, it is legal to trade these species as they are not protected under their legislations.

1. TIGER

With an Asset in the world's Black market, the Tiger's are usually referred to as 'The Walking Gold.' As the demand of the species is very high, the price continues to hit the sky like rocket speed. For their bones, skin and Beautiful pelts, these animals have been slaughtered by poaching throughout India. The tiger's bones are smuggled almost exclusively to China, which is used as wines and is considered highly-priced Traditional Chinese Medicine which is used as a tonic for healing. It's rarely poor locals that are poaching the tigers who are considered to be in organised crimes or gangs. At a business of around 20 Billion USD, tiger's are most expensive animal in the wildlife trade, apart from Elephant, Rhinos and so many other species, which has been running by the so call crime syndicates internationally.¹²⁵

Poachers have a vast knowledge of both Tiger behaviour and their distribution across India. Tiger's which live in the Outskirts of the reserve forests or adjoining to the forest area near to the crosshairs where poachers often come for their work targeting the adult male species for their products to trade nationally or internationally. As the poachers know that the enforcement is weakest, they pay the locals to get information about whether the Anti-Poaching squad is moving throughout the specific area, where the tigers are abundant.

Scientific Name : Panthera Tigris Tigris

Other Common Names: Bengal Tiger, Royal Bengal Tiger

Regional Names : Sher in Hindi, Nahar, Sela and Vagh in Central India, Wagh in Marwari, Kei in Manipuri, Poole in Tamil, Kaduwaa in Malayalam, Hoolee in Kannada.

Conservation Status ;

A) WLPA 1972 highly-priced: Scheduled I

B) CITESa business Appendix I

C) IUCN Red List : Endangered

Description One of the most familiar and largest cat species in the world, the Indian tiger is of bright orange coated with black stripes pattern. Their coat colour varies with geographical locations and habitat type. Like 'Albinos', 'White Tigers' has a recessive single pigment gene in them, called SLC45A2 which is responsible for the unusual

¹²⁵ AS OF TODAY 1 USD = RS. 76.30/- , 1 BILLION =1000 MILLION (100 CRORE)

colouration of the tiger. The Head of the tiger is broad and massive, and In male Tigers, the Face is fringed with a ruff.

Weight: 135-230 Kgs Length: Body Length: 240-310 cms Tail Length: 60-110 cms Shoulder Height : 8—110 cms

Distribution :

A) India: Throughout India from Shivalik, in the lower Himalayas foothills to Cape Comorin, Kanyakumari in South India, except in the deserts of Rajasthan, and except in Punjab, Jammu and Kashmir

B)**Global:** Other populations occur in Bangladesh, Bhutan, Cambodia, China, Indonesia, Lao

PDR, Malaysia, Myanmar, Nepal, North Korea, Russian Federation, Thailand and Vietnam.

Habitat: The habitat of the tigers can be seen in the tropical green and deciduous forests, mangrove swamps, tall grass of Himalayan foothills up to an elevation of 4000meter. Dense vegetative cover free of biotic threats, large prey species and water are essential components of its habitat.

Threats: a) Habitat loss and Degradation b) Poaching.

Common Methods of Poaching:

a)Shootingb) Electrocutionc) Poisoningd) Traps and Snares (Leg hold traps)

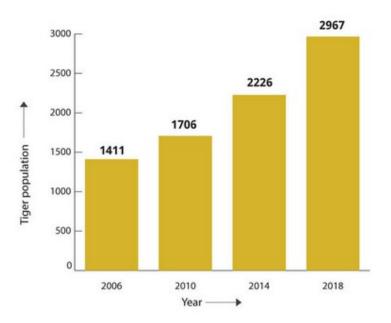
Parts Targeted in Trade ; Skin, bones, and other parts/organs.

Forms in which the part is traded :

- The tiger skins are sold to Asian countries like China, Japan, Hong Kong, South Korea for producing fur coats, jackets, handbags and also for making use of trophies.
- Nearly every part of the Tiger's body including flesh, fat, bones, claws, bile, eyeballs, whiskers, nose, floating ribs, testes, penis etc. is highly regarded for use in Traditional Chinese Medicines.

• Tiger Bones plaster and wines are also highly coveted on illegal markets.

Common Trade points within the Country:



• Delhi, Mumbai, Chennai, Jabalpur, Kolkata.

Above picture shows that the Tiger population has grown from 2006 to 2018.

The Tiger Population of India is the largest of any country, accounting for more than 80% of the global population of 3,159 adult free-ranging tigers. The growth of tigers increased in 1973 with 9 tigers reserves in around 18,278 square kilometres to 50 Tiger reserve covering about 72,749 square kilometres.¹²⁶

A 20 tiger occupied states where a total of 3,81,400 sq.km. of the forest has been surveyed for tigers. This involved 5,22,996 km. foot surveys were conducted, 3,17,958 habitat plots were conducted. Now the area that was colonized, the tiger in 2018 constituted 25,709 (28%) sq.km. the Tiger occupancy has increased in the state of Madhya Pradesh, which ranked highest with Karnataka.

¹²⁶ National Tiger Conservation Authority (NTCA)

| STATE | TIGERS |
|-----------------------|--------|
| | |
| 1. BIHAR | 31 |
| 2. UTTARAKHAND | 442 |
| 3. UTTAR PRADESH | 173 |
| 4. ANDHRA PRADESH | 48 |
| 5. TELANGANA | 26 |
| 6. CHHATTISGARH | 19 |
| 7. MADHYA PRADESH | 526 |
| 8. MAHARASHTRA | 312 |
| 9. RAJASTHAN | 69 |
| 10. KARNATAKA | 524 |
| 11. KERALA | 190 |
| 12. TAMIL NADU | 264 |
| 13. ARUNACHAL PRADESH | 29 |
| 14. WEST BENGAL | 88 |
| 15. ODISHA | 28 |

The table shows the state-wise break up of tiger population of different states. Source: Status of Tiger in India 2018

- In 2019 the country had 860 Protected areas which were increased from 692 in the year 2014.
- The tiger population has declined from 46 in 2014 to 19 in 2018 in the state of Chhattisgarh.
- The tiger population has declined from 68 in 2014 to 48 in 2018 in the state of Andhra Pradesh.
- The tiger population has increased from 308 in 2014 to 526 in 2018 in the state of Madhya Pradesh.
- In Maharashtra, the Tiger Population had risen from 190 in 2014 to 312 in 2018. The Tiger
- Population in Kerala has increased by 40% in the last four years.¹²⁷

Less than 100 Tiger deaths in the last three years, in which 84 cases of death and 11 cases of the seizure by the authorities. When we put together the number of cases in tiger deaths in the year 2019 is, 95. In the year 2018, it was 100 deaths in which 93 were dead and 7 seizures. In the year 2017, it was 115 deaths in which 98 mortalities and 17 seizures. In 2016 it was 122 deaths in which 107 mortalities and 21 seizures.¹²⁸ In case of Poaching, the country

¹²⁷ Tiger Census Data, Release by Prime Minister Modi.

¹²⁸ Ministry of Forest Environment and Climate Change (MoEFCC)

witnessed around 22 cases and one case of poisoning, in these 16 out of 22 poachings nearly 70% of the poaching was done outside the Tiger Reserve.

2. LEOPARD

Description The adaptable and most widespread out of the big cat species is the 'Indian Leopard.' The leopard has bright golden marked with black spots all over from Heads, Limbs to the tail. Coat patterns and coat colour varies with habitat type and geographical location. The Leopard's body is long well built, their legs are relatively shorter than their body. Ears are tiny and round with white spots or spots behind them.

The Indian Leopard is one of the vulnerable species widely distributed on the Indian Sub Continent which is listed in the IUCN Red List because of its population has been going down mainly because of its Habitat loss, poaching and illegal trade. Their skins and body parts illegally trade to many parts of the world.

Apart from that in 2014 national census of Leopards except northeast, 7, 910 individuals were estimated in the surveys and a national total of around 12,000 to 14, 000 were speculated. The Leopards are among the highly-threatened species in India and has classified 'vulnerable' as said earlier. Being to an extremely adaptable species, these animal are widely distributed in forests and human- areas across India. Due to the close spatial association with humans, the leopards usually have conflicts with Humans.

Due to catastrophic pressure by human beings, the population is declining day by day due to this; wildlife conservationist argues that the leopard needs conservation which cannot be made out due to that the decline in leopard is happening in India. Studies also suggest that such ecological balance and requirement of habitat needs to be made so that the population of Leopard will increase In near future.

Leopard poaching statistics from the years 1994¹²⁹but they have only limited areas due to the jurisdictional cover. The bones, skins etc. have been discovered by the society from the Indian wildlife traffickers. The game hunting has made the leopard population decline by habitat fragmentation, loss of prey and illegal trade. These leopards have experienced a human-induced 75-90% decline in the last 150-200 years.¹³⁰ The western Ghats lost nearly 75% of its leopard and the Deccan plateau lost 90%. In the case of the Shivalik, it lost 90% of its leopard population and in Terai Regions bordering Nepal, around 88% have been lost. The Western Ghats , which is believed to be the conservation habit of these leopards it suggests that the wide range of hunting and illegal activities inside the forest cover makes many leopard death which subsequently reaches to the decline of leopard population.

¹²⁹ Provided by, WPSI (Wildlife Protection Society of India)

¹³⁰ https://wwaw.deccanherald.com/national/india-lost-75-90-of-its-leopard-population-within-thelast-two-centuries-802628.html

Scientific Name : Panthera Pardus Other Names : Panther

Vernacular Names : Tendua and Guddar in Hindi, Diblya Wagh in Marathi, Chirathe in Kannada, Chiruta puli in Telugu/Tamil, Puli in Malayalam, Ceeta Bagh in Bengali, Kelral in Mizo, Khare-such in Kashmiri, Dipdo in Gujarathi, Pendra in Oriya.

Conservation status :

- WLPA, 1972 : Scheduled I
- CITES; Appendix I
- IUCN Red List : Least Concern

Weight : 25- 60 Kg Length : Body Length, 95-167 cms Tail Length : 60- 97 cms Shoulder Height : 50-75 cms

Distributions

• India : In India, the Leopard can be seen up to an altitude of 3000meter.

Habitat

• Highly adjustable, Arid areas and grasslands, lowland forests, deciduous and evergreen forests, scrub jungles, open country and fringes of Human Settlements and Habitation.

Threats

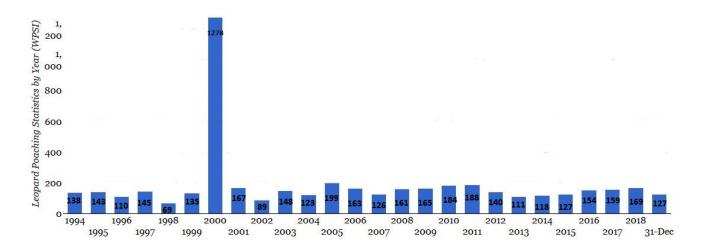
- Poaching (Trapping: Leg-hold traps and snares)
- Habitat loss and degradation
- Human-Wildlife Conflict.

Common methods of Poaching: The poachers usually use, the leg hold traps and shooting technique for killing the Leopards

Parts Targeted : Skins, claws, and bones.

From in which parts are traded : Leopard skins and other body parts are traded as trophies, ornaments, items of clothing and used in Traditional Chinese Medicines (TCM)

Common Trade Points India ; Delhi, Jabalpur, Pithoragarh, Kolkata, Chennai.



Source : WPSI Leopard Poaching Statistics during the year 1994-2018¹³¹

| STATE | POPULATION |
|----------------|------------|
| Madhya Pradesh | 1,817 |
| Karnataka | 1,129 |
| Maharashtra | 905 |
| Chhattisgarh | 846 |
| Tamil Nadu | 815 |
| Uttarakhand | 703 |
| Kerala | 472 |
| Odisha | 345 |
| Andhra Pradesh | 343 |
| Uttar Pradesh | 194 |
| Goa | 71 |
| Bihar | 32 |
| Jharkhand | 32 |

Source : Population of Leopard Census Released by Leopard Census India

 $^{^{131}\} http://www.wpsi-india.org/crime_maps/leopard_mortality_chart.php$

| REASON FOR DEATH | NUMBER OF LEOPARD DEATHS | | |
|-----------------------------|--------------------------|--|--|
| | | | |
| HUNTING | 155 | | |
| ACCIDENT | 74 | | |
| ATTACKS BY VILLAGERS | 29 | | |
| ACTION OF FOREST DEPARTMENT | 09 | | |
| NATURAL REASONS AND OTHER | 194 | | |

Source : Reasons of Death, Released by Leopard Census India

As we talk about death , Leopards are the most ignore cats. Despite rare and endangered species, there is not even having conservation measures for the Leopards to survive in its Habitat. These deaths go unnoticed because of these reasons. They are being hunted by poachers and by villagers face an extreme threat from all side from being losing their natural habitat. The data released by the Wildlife Society of India shows that Leopard's death has increased over the years. It has been seen that the leopard is not a primary concern. If these goes like this, the leopard will be endangered from the planet itself.

POACHING

One of the biggest concern of the Leopards decline is none other than the Poaching. It is one of the most illegal trades around the globe. It has been the biggest challenge in its conservation measures. Although illegally activities are going around the forest areas its has been neither looked into nor had made a serious concern, in 2018 itself 155 Leopards have been lost across India. The Wildlife Protection Act, 1972 prohibits the killing of endangered species of animals and its punishable offence. However, the low conviction rate makes the people go for poaching, which has ensured that the Act is deemed lenient.

The insufficient prosecution of the Leopard and other animals, the intensity of authorities to act on it have meant that the poachers roam free into the forests. While the Tigers and Rhinos give special status in the case of leopards it had failed. The leopard enjoys no political patronage and is often ignored when it comes to placing strict guidelines for deterring poachers. In between 1994 and 2010, the poachers in India had poached almost 2845 Leopards.¹³² In May 2010, the WPSI estimated that there are more than 3,189 leopards were killed since 1994 for their skin, claws and bones. There are human-leopard conflicts in India due to the expansion of agriculture land into protected areas.¹³³ These include Man-eating animals which are very dangerous to Human life such an example is Panar Leopard which was killed by Jim Corbett.

¹³² The Indian Express Limited (2010). <u>4 with leopard hide held, role of politician to be</u> <u>probed</u>,12 October 2010.

¹³³ Athreya, V., Belsare, A. (2007). <u>Human – Leopard Conflict Management Guidelines</u>. Kaati Trust, Pune, India.

3. PANGOLINS

The name 'Pangolin' is derived from the Malayan phrase 'pen Gulling' meaning Rolling Ball, while its scientific name 'Pholidota'' comes from a Greek word meaning ; Scaled animals'. Because of their food habits, they are known as 'Scaly Anteaters.' As they are the only mammals with Keratin Scales which protect then from their skin. Depending upon the species, they live on hollow trees or burrows. Using their long tongues, they use to catch Ants and termites as they are nocturnal. Raising of offspring , they only meet up to mate because they tend to be solitary animals and raise their offspring about two years.

As they are used for Chinese Traditional Medicines, they are often poached and is being threatened animal. Due to heavy deforestation of their natural Habitat and is the most trafficked mammals in the world.¹³⁴ As the Pangolins are one of the most traded in the world, it is the in the IUCN Red List of Threatened Species, as it has been listed as the Vulnerable. All the pangolin species which are listed in CITES Appendix I which prohibits the international trade of animals, except when the product is intended for non- commercial purposes and a permit has been granted.¹³⁵

The SARS Corona Virus 2, also known as *SARS-CoV-2*, has been found in the Nucleic acid sequences of viruses taken from pangolin, which is responsible for the 2019-2020 corona Pandemic. As it is used for Chinese Traditional Medicine, the illegal trade in the Chinese markets have been increasing day by day as from it; the scientists suggest that human transmission had happened.

Pangolins are included in the family of Manidae under the Mammalian order Pholidota. Two species of Pangolins, viz, Indian Pangolin are known as *Manis crassicaudata*, and Chinese Pangolin are known as *Manis Pentadactyla* occur within the Indian land. However, there are eight species in the pangolin family. Apart from the two Indian species, two other species, the Malayan Pangolin known as *Manis javanica* and Philippine Pangolin known as *Manis Culionensis*, are represented in Asia, while four other species are restricted to Africa.

In south-East Asia, the pangolins are the major traded animal, Sumatra Islands had a seizure of 24 tonnes of frozen pangolin in early this year. During the year 2009-2017 nearly 6000 Pangolins in illegal wildlife trade in India. The Indian states of Manipur and Tamil Nadu as hotspots for pangolin smuggling in India.

Scientific Name: Indian Pangolin (*Manis Crassicaudata*) Chinese Pangolin (*Manis Pentadactyla*)

¹³⁴ Goode, Emilia (March 31, 2015). <u>"A Struggle to Save the Scaly Pangolin"</u>. <u>The New York</u> <u>Times</u>. New York City: <u>New York Times Company</u>. Retrieved May 1, 2016.

¹³⁵ <u>"The CITES Appendices"</u>. Convention on International Trade in Endangered Species of Wild Fauna and Flora. CITES. Retrieved 28 January 2019.

Common Name: Pangolin

Vernacular Name: Bojrokit (Bengali), Bajrat kit, silu, sal sala, sakunphor (Haryana, Rajasthan, Chattisgarh, Madhya Pradesh, Uttar Pradesh etc.), Chalo, Bhimgaroo(Gujarath and parts of Maharashtra), Alawa (Andhra), Alangu, Alugu (TamilNadu and Kerala)Bajra Kaota (Orissa), Alavi, Chippu Handi (Karnataka)

Conservation Status:

- WLPA, 1972 : Scheduled I (Bothe Species)
- CITES: Appendix II
- IUCN Red List: Near Threatened (Indian), Endangered (Chinese)

Weight: 09-11 Kgs (Indian), 09 Kgs (Chinese) Length (body): 60-70cms (Indian), 48-58cms (Chinese)

Description: Elongated tapering body, Apart from inner limbs, throat, belly, sides of faces and snout chin they have large overlapping scales covering their body. Scales may be perceived as hair or rather as spines enormously enlarged and flattened. From the thick skin, the sharp posterior edged movable scales grow. The shape, topography, colour of the Pangolins scale changes. Colour ranges from brown to yellow. White, brown or even black bristle-like hair covers the scale in fewer areas.

Eyes are small, with thick heavy eyelids. With 25cms long tongue, thick tail, hind leg shorter than the foreleg and five-clawed the pangolins are unique animals on the planet. The female with two mammae¹³⁶ in the thoracic region.

Distribution

- Chinese pangolin can be seen in Bangladesh, North-East, Sikkim, Northern Part of West Bengal, China, South East Asian Countries, Nepal.
- Indian Pangolin occurs lower hills of Himalayas and to Kanniykumari, excepting the North- East Region. It also occurs in Pakistan, Srilanka and probably Bangladesh.

Habitat:

- Indian Pangolins occupies different types of tropical forests, mainly moist, dry deciduous, wet to semi-evergreen, grassland. In degraded wastelands near human habitation also it can be seen.
- The Chinese Pangolins mainly inhabits in subtropical broad- levels forests and tropical wet, semi-evergreen and moist forests.

¹³⁶ Refers to Breasts.

Threats: The flesh of the pangolins is relished by some of the tribal communities The Steady Increase in the use of the agrarian economy and use of pesticides have resulted in the decline of the Pangolin loss and deterioration of their habitat in the country. Many people are very obvious to the fact of pangolins because of their unusual appearance.

Common Methods of Poaching: Smoked out from their nests, the poachers usually captures the Pangolins by trapping, Netting and shooting it down for their scales and meat.

Parts targeted: Scales, Meat and Claws.

Which the parts are Trade: Sometimes, Clothing is made out of scales. They are also used in Chinese Traditional Medicines (CTM).

Global trading Routes : Mainly in the South –East Asian Countries

Common Trading points (India): West Bengal and Orissa.

Identification :

• Live specimen, by their scaly appearance and also larger than Chinese by size, Pangolin can be easily identified by any person.

Pangolin products used : For making coats and used in Chinese traditional medicine.

The Most trafficked animal on the earth, these the pangolins are protected under the Scheduled I of India's Wildlife Protection Act, 1972. Recently, eight of them were moved to Appendix I of CITES. From hunting to conflict hunted to the pangolins in the Eastern Ghats for local markets.¹³⁷ The forests of Northern, Eastern Hills of Andhra Pradesh it has been found mostly. The Pangolin's Scales range up to Rs. 15,000/- to Rs. 20,000/- per Kg. it's not because of the Hunting , poaching and loss of habitat the only reasons for the decline its also because of their inherent biology. The demand in the local markets these people hunt them. Most of the hunting in the region is not market-driven.

- Number of Pangolins in Illegal Wildlife Trade involving in India is about 5,772 pangolins during the period from 2009-2017.
- Out of the 90% seizure of Pangolins, 83 pangolins Scales, Seven Seizures Pangolin Meat, taxidermy specimen (1), Dead Pangolin (1) and Live Pangolin (3).
- The highest number of Pangolin was seized in the states of Manipur (36%) and Tamil Nadu (10%).

¹³⁷ ATREE (Ashoka Trust for Research in Ecology and the Environment)

- During 2009-2013 most of the seizure took place in Eastern or North-Eastern parts of India including Assam, Manipur, Mizoram and West Bengal. While in 2014-2017 majority of 44 seizures took place was from southern and central parts of India including Karnataka, Madhya Pradesh, Odisha and Tamil Nadu.
- Manipur , where 36% of the seizures have been reported, has not recorded any seizures in the years (2015-2017).

| YEAR | STATE | NO. OF SEIZURE | QUANTITY | BIOLOGICAL PART |
|------|--|-------------------|----------|---------------------------------|
| 2009 | Manipur | 08 | 1,550 | Scales |
| 2010 | West Bengal, Karnataka, Manipur and Assam | 08 | 1,771 | Scales |
| 2011 | Manipur and Assam | 07 | 1,772 | Scales |
| 2012 | Mizoram, Manipur and Orissa | 08 | 580 | Scales and Complete Pangolin |
| 2013 | Uttarakhand, Uttar Pradesh, Assam, Mizoram, Manipur, Karnataka, Tamil Nadu and Chattisgarh | 16 | 403 | Scales and Complete Pangolin |
| 2014 | Karnataka, Tamil Nadu, Uttar Pradesh, and Maharashtra | 15 | 358 | Scales |
| 2015 | Mizoram, Nagaland, Uttarakhand, Chattisgarh, Orissa, Tamil Nadu, and Maharashtra | 23 | 315 | Scales |

| 2016 | Mizoram, Orissa, | | | |
|------|------------------|----|-----|-------------------|
| 2016 | Karnataka, Tamil | 14 | 445 | Scales and a Live |
| | Nadu, | | | Pangolin |
| | Maharashtra, | | | |
| | Madhya Pradesh, | | | |
| | and Delhi | | | |
| | Meghalaya, | | | |
| 2017 | Assam, West | 09 | 220 | Scales and Meat |
| | Bengal, | | | Samples |
| | Uttarakhand, | | | |
| | Karnataka and | | | |
| | Maharashtra | | | |
| | Assam, | | | |
| 2018 | Uttarakhand, | 11 | | Scales, Live |
| | Uttar Pradesh, | | | Pangolin and dead |
| | Chhattisgarh, | | | Pangolin |
| | Orissa, | | | _ |
| | Maharashtra, | | | |
| | Madhya Pradesh | | | |

Table Shows the detail of Pangolin seizures reported in India from 2009 to 2018.¹³⁸

4. INDIAN RHINOCEROS

With a Weight of around 1,800- 2,700 kilograms and Height of around 07 feet heigh the Indian Rhinos are the largest one Horned rhinos among the three Asian Rhinoceroses. It occupies the world's tallest grasslands. Tigers kill the calves not older than 1 year, but they kill 10-20% of the claves, soon after the calves have been lost they conceive again quickly. The Indian Rhinoceroses fights with their teeth and not with their horns; the razor-sharp lower outer incisor teeth is their main weapon.

The Indian Rhinos have been seen in the parts of northern India, Nepal from the state of Assam in the east to Indus valley in the west. Today this species is restricted to 11 reserves in India. The Kaziranga National Park in Assam where it has 50 individuals. Rhinos recover quickly because of the species can reach high densities on dynamic nutrient-rich flood plains. The alluvial food plains are one such habitat where Indian rhinos preferred as well as tall grasslands along the foothills of Himalayas. Earlier , the Rhinos was distributed in the Gangetic Plains now; it has restricted into small habitats in the Indo- Nepal plains and Northern West Bengal and Assam. In India, the Rhinos are mainly found in the Kaziranga National Park, Pobitora Wildlife Sanctuary, Orang

¹³⁸ https://www.sciencedirect.com/science/article/pii/S2665910720300049#bib0185

National Park, Manas National Parks, in Assam and Jaldapara National Park, and Gorumara National Park in West Bengal and Dudhwa Tiger Reserve in Uttar Pradesh.

The Kaziranga National Park, which holds two-thirds of the world's great one-horned Rhinoceroses and is considered as the World Heritage Site.¹³⁹ The NP has 2,413 Rhino population. the NP is an example of the tall Elephant grass, marshland and dense tropical moist broadleaf forests, crisscrossed by four major rivers, including the Brahmaputra. The Rhinos population were declining due to many illegal activities around the globe. The hunting for sport or is being killed as agricultural pests. Thus, the species has been pushed very close to the extinction, and by the start of the twentieth century, around 200 wild Great One-Horned Rhinos remained.

The greater one-horned Rhinos are identified by a single black horn about 08- 25 inches long and a grey-brown hide with skin folds, which gives an armed plated appearance. The species is solitary, prefer to live in Independent life. All Rhinos demands their own territory, especially, Males and often overlap the primarily graze, Consisting of fruits, trees, shrubs, grasses and leaves, aquatic plants etc

Scientific Name: Rhinoceros Unicornis

Common Name: Great Indian Rhinoceros; Greater One- Horned Rhinoceros Vernacular Names: Gainda- Hindi, Gaur- Assamese, Samu Gainda- Manipuri, Gondar- Bengali, Genda- Marathi.

Conservation Status:

- WLPA, 1972 : Scheduled I
- CITES Appendix I
- IUCN Red List : Endangered

Description : The thick hide with several skins which are folded and raised bumps on the neck, shoulder and flanks are the things we can quickly note on the greater One-Horned Rhinoceroses. The Characteristic that differentiates it from the closely related Javan Rhinoceros *Rhinoceroses Sondaicus*. The other feature is the neck fold in the greater one-horned Rhinos, which does not continue across the back. Except at the edge of ears, the rhinos are generally free from hairs, the eyelashes and the rivet like tubercles. The upper lip is

¹³⁹ Bhaumik, Subir (17 April 2007). "Assam rhino poaching 'spirals'". BBC News. Archived from the original on 22 November 2008. Retrieved 23 August 2008.

triangular and prehensile, which aids in feeding. It has dark coloured horn (50cm long) composed of modified hairs. Horns are present in both sexes.

Weight: 1,500- 2,100 kilograms Length(Body): 300-380cmc, Tail : 70cms

Distribution::

- India : West Bengal, Assam that holds the largest population of Rhinos in the World Wide and Uttar Pradesh (Dudhwa Tiger Reserve)
- Global: In Nepal and in low land of Bhutan.

Habitat : From the terai, East Uttar Pradesh to Assam. Grasslands with open scattered trees.

Threats :

- Habitat loss
- Poaching of the Rhinos.

Conventional methods of Poaching:

- Electrocution
- Pit Poaching
- Shooting with firearms and spear.
- Poisoning Rhinos

Parts Targeted in Trade: The Rhinos are mainly Poached for their Horns which are used for Medicines and as a status symbol

Forms in which the part are Traded:

- In China, Japan and Taiwan it is used as Medicine by making it powdered
- For the Manufacture of *Jambias and Khanjars*, a form of dagger handles are used by Yemen and Oman
- Rings as a Lucky Stone.
- For various cultural and religious uses flesh, blood and urine of the Rhinos are taken—for example A charm against Ghosts, evil spirits and diseases.

Common trade points in the Country:

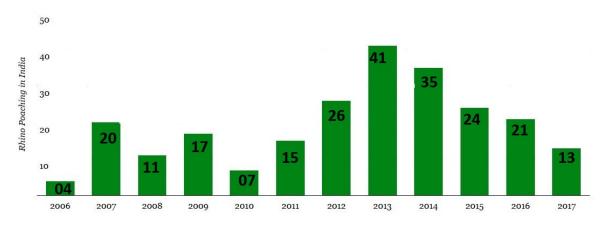
- Guwahati, Silchar and Tezpur in Assam.
- Kolkata and Siliguri in West Bengal.
- Kohima and Dimapur in Nagaland.
- Indo- Nepal border along with Uttar Pradesh
- •

International Trade Routes:

- Tezpur to Nepal via Guwahati.
- Tezpur to east Asia.
- Tezpur to Myanmar.
- East Dimapur to Nagaland.

Identification

- The Rhino Horn is entirely composed f Keratin, a class of protein, which s made up of conjugate hair and pores.
- A Chemical examination with the addition of 1ml of concentrated nitric acid to 50mg of rhino horn followed afterwards by a few drops of ammonia solution also helped to find out rhino horn. An Orange- Yellow colour confirms the presence of Keratin
- The surface is rough. The tip is generally rounded due to the use.



Source : WPSI's Rhino Poaching Data from 2006-2017¹⁴⁰

| YEARS | NUMBER OF RHINOS POACHED |
|-------|--------------------------|
| 2006 | 05 |
| 2007 | 16 |
| 2008 | 06 |
| 2009 | 06 |
| 2010 | 05 |
| 2011 | 03 |
| 2012 | 11 |

 $^{^{140}\} http://www.wpsi-india.org/crime_maps/rhino_poaching.php$

| 2013 | 27 |
|------|----|
| 2014 | 27 |
| 2015 | 17 |

Source: Rhinos Poached in Kaziranga National Park, Assam.¹⁴¹

5. INDIAN ELEPHANTS

The Asian Elephant or also called the Asiatic Elephant (Genus : *Elephas*) which is the Largest Living Land Animal In Asia, is distributed among the Indian sub-Continent and south – East Asia.¹⁴² During the time of Pliocene the Genus *Elephas* which has originated in the Sub-Saharan Africa, has spread its population throughout Africa before its expansion into South Half of Asia.¹⁴³ The Indus Valley Civilization has indications of the elephant captive on their seals which was dated 3rd Millennium BC.¹⁴⁴ There are actually three sub-species of Elephants are recognized in Asia these, the Srilankan Elephant, The Indian Elephant, The Sumatran Elephant.

The Asian Elephant, are those elephants that live in the grasslands mainly, the tropical evergreen forests. Apart from the tropical evergreen forests, the Elephants lives in the Semi-Evergreen, moist and dry deciduous, dry thorn forests also. Elephants occur from above the sea level, which is about, 3,000meters (9,800feet), the eastern Himalayan in the northeast elephants regularly stay at this altitude.¹⁴⁵ The Indian Elephants lives on the mainland of Asian countries like Bangladesh, Bhutan, Cambodia, China, India, Laos, Malay Peninsula, Myanmar, Nepal, Thailand, Vietnam.

The Elephants are mostly Crepuscular.¹⁴⁶ Also, they are known as Mega Herbivores and consume about 150Kilograms of plant matter in a day.¹⁴⁷These Elephants drinks, 80-200 litres of water per day. They use soil and more than 200 litres per day for bathing too. the gestation period is of around 18-22 months, the female elephant gives birth to one calf and occasionally twins. Asiatic elephants reach adulthood at the age of 17 years in both the

¹⁴¹ https://www.kaziranga-national-park.com/blog/rhino-poaching-crisis-conservation-assam/

 ¹⁴² Shoshani, J.; Eisenberg, J. F. (1982). "Elephas maximus" (PDF). Mammalian Species (182):
1–8. doi:10.2307/3504045. JSTOR 3504045

¹⁴³ Haynes, G. (1993). <u>Mammoths, Mastodonts, and Elephants: Biology, Behavior and the Fossil</u> <u>Record</u>. *Cambridge University Press*. <u>ISBN 978-0521456913</u>.

¹⁴⁴S ukumar, R. (1993). <u>The Asian Elephant: Ecology and Management</u> (Second ed.). Cambridge: Cambridge University Press. ISBN 978-0-521-43758-5.

¹⁴⁵ Choudhury, A. U. (1999). "Status and Conservation of the Asian elephant Elephas maximus in north-eastern India". Mammal Review. **29** (3): 141–173. <u>doi:10.1046/j.1365-</u> 2907.1999.00045.x.

¹⁴⁶Meaning, Animals which are active during twilight.

¹⁴⁷ Samansiri, K. A. P.; Weerakoon, D. K. (2007). <u>"Feeding Behaviour of Asian Elephants in the</u> Northwestern Region of Sri Lanka" (PDF). *Gajah.* 2: 27–34.

sexes.¹⁴⁸ The Generation period of Asian Elephants is about 22 years, and that of Elephants live up to 60 years and 80 years in captivity.

The Indian Elephant has a critical drawback which is their death. These the Elephant has been listed as Endangered on the IUCN Red List as for the last three generations of Elephants their Population has been decreased over 50%. Due to Habitat loss, Poaching, Habitat degradation and fragmentation, most of the Asian Elephants have died.¹⁴⁹ During the year 2013, it was estimated of around 41,410 and 52,345 individuals. The current status of Asian Elephants in India is about 26,000- 28,000. The females captive elephants live around 60 years in Semi-natural habitats such as forest camps. The Elephant that lives in zoos is dying at a younger age because the captive animals have low birth and death rates which are the main problem in the declining of the Asian Elephants.¹⁵⁰

The Asian Elephants are being poached from early times itself (the 1970s and 1980s) because of its demand for ivory. East Asia is one of the leading and prominent countries where the poaching is being done, and a severe decline of the animal has been seen both in Asia and Africa. Thailand is the leading country where the Trade of Ivory flourishes. It has been observed that between the year 1992 and 1997, at least 24 Elephants have been killed for their tusks.¹⁵¹ Also, for the Skin of Elephants, it has been recognised as a threat to Asian Elephants.¹⁵² The Skin is used for the Chinese Medicines as well as the ornamental manufactures such as beads.

According to the NGO, Myanmar, where the primary source of the Elephant Skin and tusks are poached and developed rapidly since 2010.¹⁵³ The tourism industry in Thailand and Myanmar have been capturing young elephants illegally and given the training to perform

¹⁴⁸ Khyne, U. M. (2002). "The studbook of timber elephants of Myanmar with special reference to survivorship analysis". Proceedings of the International Workshop on the Domesticated Asian Elephant.

¹⁴⁹ Choudhury, A.; Lahiri Choudhury, D. K.; Desai, A.; Duckworth, J. W.; Easa, P. S.; Johnsingh, A. J. T.; Fernando, P.; Hedges, S.; Gunawardena, M.; Kurt, F.; Karanth, U; Lister, A.; Menon, V.; Riddle, H.; Rübel, A. & Wikramanayake, E. (IUCN SSC Asian Elephant Specialist Group) (2008).

¹⁵⁰ Sukumar, R. (2003). <u>The Living Elephants: Evolutionary Ecology, Behavior, and</u> Conservation. Oxford: Oxford University Press. p. 1. ISBN 978-0-19-510778-4.

¹⁵¹ Stiles, D. (2009). <u>The elephant and ivory trade in Thailand.</u> TRAFFIC Southeast Asia, Petaling Jaya, Selangor, Malaysia.

¹⁵² Wipatayotin, Apinya (26 April 2018). "Jumbos surviving by the skin of their teeth". Bangkok Post. Retrieved 26 April 201

¹⁵³ Gosling, Justin (April 2018). <u>Skinned; The growing appetite for Asian elephants</u> (PDF). London: Elephant Family. p. 1. *Retrieved 26 April 2018*.

various stunts and been used in the amusement parks.¹⁵⁴ These calves have been beaten, confined, tied-up, starved which result in its perish and only some survive.¹⁵⁵ Handlers use the technique of training crush in which most of the Elephants, the controllers drive nails into the elephant's ears and feet.¹⁵⁶

Scientific Name: Elephas Maximus

Other Common Names: Asiatic Elephant

Vernacular Names: Hathi in Hindi, Bengali and Assamese, Hasti in Sanskrit, Samu in Manipuri, Yanai in Tamil, Aana in Malayalam, Aane in Kannada.

Protected :

- WLPA, 1972: Scheduled I
- CITES Appendix I
- IUCN Red List: Endangered

Weight: 3000 to 5000 kilograms Length: (Body) 550-640cms (Tail) 100-130cms Shoulder Height : 250-300cms Distribution:

- India : North Eastern India, Bihar, Orissa, West Bengal, Jharkhand, Uttarakhand, Uttar Pradesh, Karnataka, Kerala, Tamil Nadu.
- Global: Nepal, Bhutan, Bangladesh, Sri Lanka, South-East Countries and China.

Habitat: It is found in different types of habitat such as tropical and subtropical moist broad forests, tropical and subtropical dry thick forests including grasslands, marshes, and forests.

Threats:

- Habitat loss and degradation
- Human-Elephant Conflict
- Poaching
- Illegal live Capture.

Conventional Methods of Poaching: Elephants are killed for their Ivory meat and skin, by shooting or by Electrocution. They are also poisoned by lacing locally brewed alcohol with

¹⁵⁴ Stiles, D. (2009). <u>The elephant and ivory trade in Thailand.</u> TRAFFIC Southeast Asia, Petaling Jaya, Selangor, Malaysia.

¹⁵⁵ "Tourism driving illegal elephant trade in Burma and Thailand – video". The Guardian. 24 July 2012.

¹⁵⁶ Hile, J. (2002). <u>"Activists Denounce Thailand's Elephant "Crushing" Ritual"</u>. <u>National</u> <u>Geographic Society</u>. Retrieved 1 October 2014.

pesticide poison. In order to obtain the ivory, the poacher must cut the head because approx. 25% of the ivory is internal in the head.

Parts targeted in Trade:

• Tusks, bones, tail , hair, skin and flesh.

Form in which part is traded:

- Raw or unworked ivory(whole tusk).
- Bangles, chess pieces, toothpicks, statues etc. are made up of Ivory
- Powdered Ivory for Medicinal Purposes

Common Trade points in India: Jaipur, Kolkata, Siliguri, Calicut, Thiruvananthapuram, Mangalore, Mumbai, Visakhapatanam, Guwahati, Haridwar, Delhi.

International Trade Routes : Far –East, South East Asian Countries, China, Nepal Dubai and Bangladesh

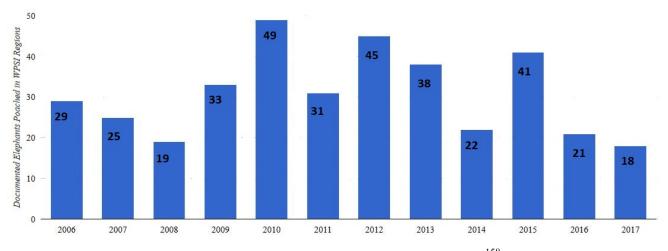
Identification:

- Ivory and Bone can be distinguished by heating it on an open flame. The bone will be char easily while ivory will blacken at high temperatures.
- For clear identification, the lab test is required as it includes the marking and angles of Schreger Lines.
- By looking at the angles between the Schreger lines, it is effortless to identify the ivory of Asian Elephants and African Elephants.
- Ivory can be fake by making it from animals bones such as camels and by wood and giving coating with varnish and resin to give an older look. On close examination on the chiselling and carving marks, it can find out the fake products.

In the year 1975, when the Asian Elephant has been kept in the CITES: Appendix I, the international trade of the Asian elephant ivory is banned.around 1980s, it is believed that around 50,000Asiatic Elephants are remaining in the world.¹⁵⁷ Due to the death of many male Elephants like selective poaching, the imbalance in the gender ratio has been found. Due to the most of the Elephant population comes to the land it has a frequent conflict with humans, with that large number of elephants get killed and also, during train hits, electrocution, crop-

¹⁵⁷ Magazine / Geographical. Geographical.co.uk. Retrieved 2011-02-02.

raiding, poaching and poisoning. We should remember that this is happening in a country where India is a home of 60% of the Global Asian Elephants.



Source: WPSI's Elephant Poaching Data from the Year 2006- 2017¹⁵⁸

- Karnataka, Kerala, and Tamil Nadu are home to nearly 44% of the Elephants.
- The State of Karnataka alone is the home to 22% of the Elephants in the country.
- The North Eastern States of Assam, Arunachal Pradesh, Mizoram, Meghalaya, And Tripura Together With West Bengal accounts for 30% of the Elephants in Indian.
- A total of around 29,964 Elephants are there in the country.¹⁵⁹
- The North West contains 1,500 Elephants, 08 corridors and 5,500 sq. km. The North East Contains 9,200 Elephants, 58 corridors, 41,000 sq.km. The Central and East Contains 2,500 elephants, 54 corridors, 23,500sq.km. The South Contains 14,800 Elephants, 46 Corridors, 40,000 sq. km.

¹⁵⁸ http://www.wpsi-india.org/projects/elephant_poaching.php

¹⁵⁹ Elephant census 2017, <u>www.indianenivornmentalportal.org.in-</u> Elephants file, https://en.wikipedia.org/wiki/List_of_Indian_states_by_wildlife_population#cite_ref-7

6. INDIAN STAR TORTOISE

Indian Star tortoise is one of the star attraction among other tortoises which makes them the massive price for using them as pets in their home. The star tortoise has a vast market around the world—the Indian star tortoise classified as the *Geochelone elegans* in their class Reptiles. In India, the species has received massive protection under the Scheduled IV list of species of the Wildlife (Protection) Act 1972. As it is one of the most beautiful exotic pets, the demand for the star tortoise is very high in Indian markets too. the people often have a tendency to buy beautiful things either it's living or non-living thing in their home for decorations.

The star tortoise is one among the living things apart from, Fishes ,dogs, hens etc. which people used to buy and keep at homes for decorations. The people are unaware of the situation that the star tortoise is the most Vulnerable species in India and these things are traded among the India and Indian subcontinent and around the world. As the demand for star tortoise has been increasing worldwide, the increase in their price also increases. The species which is small and little ones are having huge markets and demand. These reasons make the small tortoise having more rate than bigger ones.

In India, Dilli market in Ahmadabad where individuals purchase is available in a specific request. The illegal trade hub mostly put the Species in an open display for the trade. In those markets, there are several star tortoises that are being traded for Rs. 1000/- to Rs. 3000/- and above for per animal . These tortoises can also be supplied in larger quantities if needed. The local communities in the Indian villagers are the main source of these star tortoises. Despite the legal protection towards the species, the large number of Indian domestic consumers buys these species and traders still openly kept as pets publicly in many Indian streets.

The people buy these star tortoise because people considered that the star tortoise could bring good omen to their families. As a country which is having the most number of people trusting God and religion, people always have a tendency towards it, so people often buy these things for making their family away from bad omen. As tortoise represents the incarnation of Hindu God " Vishnu", India these star tortoises have been kept in the temples for spiritual purposes in many temples. There are many Hunter-Gatherer communities like Haki piki in Karnataka , Yenadi in Andhra Pradesh and Irula in Tamil Nadu, who collects such tortoise and are being traded. The other type is forest dwellers, such as Girlol Forest tribal community who gathers juvenile Tortoises, who receive the species predominantly in seasons which takes place after the local monsoon season. Many of the trade takes place through Rail or by Road. These traders, often connect through national highways on the east coast of the country joining Chennai with Kolkata. The railway route linking Chittoor in Andhra Pradesh to Guwahati via Kolkata.

The Indian star tortoise has been found on the countries with scrub forests such as India, Pakistan and Srilanka. As the species is an exotic pet, the trade is regulated by CITES :

Appendix I in 2019, which is threatened and in the verge of extinction which gives the high level of protection from commercial trade.¹⁶⁰ To be sold as pet trade, the Indian star tortoise around 6,040 were seized globally.¹⁶¹ A large number of specimens of these species which have a negative effect on wild populations and affect the trade on them.¹⁶² The species traders who are sophisticated criminal gangs who exploit both impoverished rural and urban communities alike.

Scientific Name: Geochelone elegans Other Names: Star Tortoise Names in India : Tarewala Kachua (Hindi), Katu aamai (Tamil)

Status of Conservation:

- WLPA, 1972: Scheduled IV
- CITES: Appendix II
- IUCN Red List: Lower Risk

Description: The star attracted pet can be easily identified as they have dorsal shields, often forming humps and carapace is very convex. Big Plastron truncated or openly notched in front, deeply notched, bifid behind. The sexual dimorphism of adult Indian star tortoise is quite apparent. Females are larger than their male counterparts. In addition, the female's plastron is much more flatter than that of the male's, which has a concave shape. The star-like patterning, while sharply contrasting, is disruptive. The pattern splits the form of the tortoise as it sits in the shade of grass or foliage. Most of the herbivorous, feed on grasses, fallen fruit, flowers and leaves of succulent plants, and will occasionally eat carrion. The adult may grow between 24 to 32cms.

Distribution :

- India: except in the lower parts of Bengal, extending west to Sindh and Srilanka
- Global: Sindh river system, Indo Gangetic plain of Pakistan, India, Nepal and Bangladesh.

Habitat: Occurs in dry areas and scrub forests.

Threats: The star tortoise is only used as a pet world wide. So for the high demand of its beautiful people often trade these species worldwide within India without looking at the legislations

¹⁶⁰ <u>"IUCN Red list"</u>. <u>IUCN Red List of Threatened Species</u>. <u>IUCN</u>.

¹⁶¹ <u>"Reptiles and amphibians - Species we work with at TRAFFIC"</u>. *www.traffic.org*. Retrieved 2019-01-10.

¹⁶² <u>"Uncovering the tortoise trade route"</u>

Parts Targeted in trade:

• As the beauty of the star tortoise, the species is one of the most popular pet trade and illegal wildlife exports from India. It commands a very high demand in the markets of South-East Asia. Carriers smuggle a large number of these tortoises out as part of their hand baggage. Several seizures of star tortoise, including nearly 2000 individuals in one bag, have been made by customs, wildlife and DRI officials at Chennai and Mumbai Airports in last few years.

Forms in which parts are Traded

• Live Star Tortoise has been traded for its high demand in the international markets.

Trade points in the Country : Chennai and Mumbai

International Trade Routes: To South-East Asia.

Identifications:

- Live Specimens: The medium-sized tortoise with a carapace length up to 20cms or more, with rays at each scute of the carapace. Females can get considerably larger up to 25cms. It has been reported that around 38.10cms female has been measured in Srilanka. some of the Morphological Characters include a sequence of Plastrons with several dark radiated lines in the background light., top of head yellow and black with small scales, larger scales on forelimbs and *Astrochelys radiate (*Radiated Tortoises)
- Similar Species : There are three similar star-patterned tortoises (Family Testudinidae) include the Indian Star Tortoise known as *Geochelone elegans*, the Burmese star tortoise known as *Geochelone platynota*, and Radiated Tortoise known as *Astrochelys radiate*.

| DATE | STAR TORTOISE | SEIZED FROM | SMUGGLED FROM |
|------------------------------|---------------|---------------|-------------------|
| | | | |
| Aug 05 th , 2018 | 1,125 | Visakhapatnam | Madanapalli, |
| | | | Chittoor |
| Oct 06 th , 2018 | 582 | Chennai | Andhra Pradesh |
| Sep 06 th , 2018 | 523 | Mumbai | Puttaparthi, |
| | | | Anantapur |
| Nov 07 th , 2018 | 490 | Chennai | Andhra Pradesh |
| Nov 2018 | 300 | Mumbai | Andhra Pradesh |
| July 29 th , 2019 | 500 | Vijayawada | Kadiri, Anantapur |
| July 02 nd ,2017 | 50 | Chennai | Kuala Lumpur |

Source : Deccan Chronicle, 20th Oct 2019

CHAPTER-6

THE JUDICIAL, CONSTITUTIONAL AND OTHER LEGAL ASPECTS OF LAW RELATING TO WILDLIFE IN INDIA

INTRODUCTION

Man is destroying nature, its habitat, environment and wildlife. Destroying these things may lead to some other essential consequences for human beings. Humans know that wildlife and wild animals are a crucial part of survival and necessary for nature. The growth of industries, increasing technologies and economic gains of countries has led to the depletion of its natural resources. When such reduction happens, the forest itself is destroyed, when the wood is damaged, wild animals have not habitat to survive, automatically they die or become extinct from the land. This depletion is irreversible. It is because of the lack of public awareness, concern, grave consequence towards the destruction of wildlife and foresightedness.

Large scale killing of wildlife and loss of vegetal cover has resulted in the decline of quality in the environment.¹⁶³ India is a country with a large number of plants and animals. The environment of India is a huge thing. The total forest cover in India is around 7,12,249 Square Kilometer, i.e. 21.67% of India's total geographical area is under the protection of forests. In these forest cover there include many varieties of animals, birds, plants, marine species etc. India is home for 500 species of animals and more than 2000 species of birds. As such, India's forest cover is about 21% of many illegal activities are going on in and around the forest cover.

Some things are happening towards animals like poaching, wild animals trade, wild animal's product, plants, reptiles, exotic birds, etc. are being sale throughout the country from India. As there are strict laws, the conviction rate is low people tend to do such illegal activities inside the forest cover. The people come and resides alongside the protected areas and make a massive impact on killing animals for money. The animals are being trapped and killed or shoot and killed. When such killing happens throughout the country with the national laws are strict, it's a very high risk of animals get extinct and endanger from the state.

When it is about the Nationals laws, the country to country trade is through international wildlife laws or with the permission of CITES. Even then, people used to kill animals and send through the national borders to other countries as the products in other countries having massive money in the international markets. This cause the killing of animals throughout the country. For such things, national law has been implemented. There are may Acts and constitutional amendments and provisions and legal aspects of cases that have happened for conviction of culprits of wildlife criminals. Such laws are fundamental and form the backbone of India's forest. Wildlife cover, such judicial, legislative mechanisms are essential for the recovery of wild species, especially the extinct and endangered species. In the

¹⁶³ See, S.A.K. Azad, Hunting of Wild Animals and its Legal Control in India, 2004, p. 212

judiciary, The court can not sit folded hands and closed eyes when the laws are being violated.

CONSTITUTIONAL PROVISIONS

The Indian wildlife has received tremendous protection through a numerous, species-specificstatutes for over a century. The constitution of India is a bulky document, and there were no provisions for the safeguard of the wildlife in that. Therefore, until subsequent amendments, the constitution text was without any specific rules for the protection and promotion of the wildlife. The united nations conference n human environment held in Stockholm in 1972 put the issue of conservation of biosphere on the official list of Foreign Policy and law. At the United Nations conference on Human environment, then prime Minister of India Smt. Mrs Indira Gandhi while displaying the nation's commitment to the protection of the Environment, said that the natural resources on the earth must safeguard for the benefit of present and future generations through careful planning and management. To comply with the Stockholm declaration adopted by the international conference on Human Environment, the government of India by the constitution of 42^{nd} Amendment, 1976 made express provisions for the protection and the promotion of the Environment and Wildlife, by introducing the Article 48-A and 51-A(g) which forms the part of the Directive Principles of State Policy and Fundamental Duties, respectively.

The primary intent of the statutes was to preserve animals for hunting. The Indian Forest Act,1927 included the provisions of hunting restrictions in reserved and protected areas of the forest and authorised the establishment of sanctuaries. The Forty Second Amendment in 1976 moved wildlife and forest from the state list to the concurrent list of the constitution of India. Subsequently, the central government has increased its role in the developing national wildlife policy.¹⁶⁴

THE FORTY SECOND (42ND) AMENDMENT ACT, 1976

The first provisions of the protection towards the environment were made in the 42nd Amendment in the constitution of India. The 42nd Amendment was passed in the year 1977, which responded to the Stockholm Declaration adopted by an international conference on Human Environment in 1972. The Wildlife Protection and improvement were explicitly incorporated into the constitution in the forty-second amendment Act, 1976.

Article 48-A was adopted and were added to the Directive Principles of State Policy.

Article 51-A (g) in the chapter entitled 'Fundamental Duties' imposes responsibility on every citizen.

¹⁶⁴ See Divan, Rosencranz, Environmental Law and Policy in India, (2001) p 328.

Although the language in the two Articles differs, the differences appear to relate to form rather than to substance. Together, these provisions highlight the national importance of wildlife protection and improvement. There was considerable debate in the parliament over the wording in the draft of the Article 48-A. The Lok Sabha has removed several amendments in which one of them required the state to ' conserve and develop the water, soil and other natural resources', while another proposed to ensure that the state's efforts to protect and improve the environment would not harm the tribal forest dwellers. None of these amendments was accepted by the governments.¹⁶⁵

The 42nd Amendment expanded the powers under the concurrent list in the constitution of India. Forest and protection of wild animals and birds were moved from the state list to concurrent list; the subject wildlife was moved to the concurrent list by forty-second amendment in 1976, the parliament was empowered to enact the laws relating to the wildlife without recourse to Article 252(1).¹⁶⁶ Subsequently, the central government has increased its role in developing a national wildlife policy.

(1) ARTICLE 48-A of Constitution of India

The Article says The state shall Endeavour and give Protection and improvement of environment and safeguarding of forest and wildlife

The Article was added by the constitution in the 42nd Amendment Act,1976. This article has been considered to be the light f Article 21, which secures the right to life and personal liberty. The Environment (Protection) Act, 1986 and the Wildlife (Protection) Act,1972 as amended by the Act of 1986 are among the steps taken to give effect to the mandate contained in Article 48-A of the constitution of India. To enable the practical actions being made for the purpose, by both the centre and state governments 'Wildlife' and 'Forest' has now been placed in the concurrent list of the seventh Scheduled of the Constitution.

In the *Animal and Environment Legal Defense Fund v. Union of India and Ors¹⁶⁷*In which the Chief Wildlife Warden of the forest Madhya Pradesh is granting 305 fishing permits to the tribal's, residing near Pench National Park Area for fishing in the Totladoh Reservoir. It has been said that the state government is expected to act with a sense of urgency in matters enjoyed by Article 48-A of the constitution, keeping in mind the duty enshrined in Article 51-A (g).

In *Pradeep Krishan v. Union of India*¹⁶⁸, the petitioner, argued that allowing villagers living around the boundaries for the maintenance of their traditional right to collect the tendu leaves

 ¹⁶⁵ See Divan, Rosencranz, Environmental Law and Policy in India, (2001) pp 44, 45.
¹⁶⁶ Ibid, p. 329.

¹⁶⁷ 1997(2) SCR 728

¹⁶⁸ AIR 1996 SC 2040

contended that permitting to collect the tendu leaves from sanctuaries and National parks is ultra vires, that it is inconsistent with the wildlife (Protection) Act 1972, Fundamental Rights Article 14 and 21 and also Article 48-A and 5-A(g) of the constitution of India. The Supreme Court held that The Madhya Pradesh government should take urgent steps to prohibit the entry of villages into the Sanctuaries and National Parks.

(2) ARTICLE 51-A (g) of the Constitution of India

The article says *it shall be the duty of every citizen of India to protect and improve the natural environment, including forests, lakes, rivers and wildlife and to have compassion for living creatures.*

The Directive Principles of State Policy Under the Indian constitution directed towards the ideals of building the welfare state. Healthy environments are also one of the elements of a welfare state. The pivotal roles played by the Environment ministry and laws, the Article is unique in the sense that unlike the common notion that fundamental Duties are not enforceable, this Article has been elevated to the status of a Fundamental Rights Implicit in Article 21 and Freedoms of Article 19 of the constitution of India by the advent of public interest litigation and judicial activism. The Supreme Court of India, along with the State High Courts had done a considerable amount of job, particularly as the legislature and executive, are not enough to protect the environment.

In *L. K. Koolwal v. the State of Rajasthan*,¹⁶⁹the Rajasthan High Court had interpreted the word citizen as used in this Article and observed that we as a real citizen of the country should strive towards excellence in all spheres of undivided and collective activity including protection of the environment

In *Goa Foundation v. the State of Goa*¹⁷⁰ in which the Bombay High Court held that a registered society has a locus standi to file a PIL For performing duty envisaged under Article 51-A (g)

In *M.C. Mehta v. Union of India*¹⁷¹ it has stated that the yellowing of the Taj Mahal from the fumes of refineries, the industries that could not afford natural gas was closed and shifted with monetary support in conformity with the principle of sustainable development as it was the duty to protect the natural environment under the Article 51-A(g)

In *M. C. Mehta* v. Kamal Nath¹⁷²In this case, the Supreme Court declared that Article 51-A (g) of the constitution of India should be interpreted in the light of Article 21 of the

¹⁶⁹ AIR 1988 RAJ 2

¹⁷⁰ AIR 2001 BOM 318(322)

¹⁷¹ AIR 1997 2 SCC 353

¹⁷²(2000) 6 SCC 213

Constitution as any disturbance of the primary environment elements would be hazardous to life within the meaning of Article 21.

Article 48-A and 51 -A(g) of the constitution where both imposed an obligation on the government of India and the courts to protect the environment for the people and the nation.¹⁷³ It was also observed that the phrase used in the Article 48-A and 51-A(g) of the constitution is to protect and improve which implies that the phrase appears to contemplate affirmative governmental actions to improve the quality of the environment and protect the wildlife.¹⁷⁴

SCHEDULE VII - ARTICLE 246 of Constitution of India

The Seventh Scheduled of the constitution of India is a provision on the distribution of legislative powers between the Union and the State. The seventh schedule of the constitution defines and specifies the allocation of powers and functions between Union and State. It contains the Union Lists, State Lists, and the Concurrent Lists. The legislative power revolves around the scheme of distribution of powers between the union and state legislature, which is provided in the said three lists.

ARTICLE 246:

There are three lists mentioned in the constitution of India which gives a scheme of distribution of legislative powers between centre and state.¹⁷⁵ After the commencement of the constitution, the wildlife was covered under the state subject, which is exclusively for the legislative power within the states. That Parliament could not exercise its legislative power in respect to the said subject matter if two or more states passed a resolution empowering it to give the necessary legislation on the said subject, as in the case of Wildlife. The Act was therefore brought into force on different dates, depending upon when the respective states legislature passed the resolution under Article 252 of the constitution

After the constitution (Forty Second Amendment) Act, 1976 the subject ' protection of wild animals and birds' was transferred from State List (List II)¹⁷⁶ to the concurrent List (List III)¹⁷⁷ To facilitate a uniform central law on the said subject, thus conferring parallel power on the parliament and state legislature to enact the legislation on the protection of wildlife.

¹⁷³ Constitutional Provisions, www.anbum.edu/alleykd/envirolitigators/law

¹⁷⁴ www.legalserviceindia.com/articles/env.

¹⁷⁵ Constitution of India Art 246.

¹⁷⁶ Schedule VII-State List (II) Entry 19 - Forests. Entry 20 - Protection of wild animals and birds. Entries 19 and 20 were omitted by Constitution (Forty Second) Amendment Act, 1976.

 ¹⁷⁷ Schedule VII-Concurrent List (III) Entry 17- Prevention of cruelty to Animals. Entry 17-A
-Forests. Entry 17-B - Protection of Wild Animals & Birds. Entry 29 - Prevention of the

The Amendments subsequently made to the Act, therefore, did not wait for resolutions by various state legislatures.¹⁷⁸ The object was to protect wild animals, birds and their habitat for ensuring ecological and environmental security of the country. Before the 42nd Amendment Act,1976, the states had exclusive power to make laws on forests and wildlife.¹⁷⁹ There is no specific mention of the word ' National parks' or 'area of outstanding natural beauty' in any of the entry in the union, state or concurrent lists, given in the seventh schedule of the constitution. However, the parliament is competent to enact the national Parks legislation under the residuary powers, conferred upon it by entry No. 97 of the Union List.¹⁸⁰

INDIAN PENAL CODE PROVISIONS

The Indian Penal code also contains some provisions to safeguard the animals. It also defines the word ' animal' and penalties for mischief against animals and negligent conduct concerning animals.

Section 47:

Defines the word 'animal'. The term 'animal' denotes any living creature, other than a human being.

Section 428 :

Defines, Mischief by killing or maiming animals of the value of ten rupees or upwards. Whoever commits mischief by killing, poisoning maiming or rendering useless any animal or animals of the value ten rupees or upwards, shall be punished with imprisonment of either description for a term which may extend to two years or with fine or with both.

Section 429 :

Defines, Mischief by killing or maiming cattle, etc. of any value or any animal of the value of fifty rupees. Whoever commits mischief by killing, poisoning, injuring or rendering useless any elephant, camel, horse, mule, buffalo, bull, cow, ox whatever may be the value thereof or any other animal of the cost of fifty rupees or upwards, shall be punished with imprisonment of either description for a term which may extend to five years or with fine or with both.

Section 289 :

Defines, Negligent conduct concerning the animal. Whoever knowingly or negligently omits to take such order with any animals in his profession as is sufficient to guard against any

extension from one State to another of infectious diseases or pests affecting men, animals or plants

 ¹⁷⁸ See, Nandan Nelivigi, Biodiversity, Wildlife and protected area Management: A people Centered approach. Journal of Indian Law Institute (1995) p 149.

¹⁷⁹ See, S.A.K. Azad, Hunting of Wild Animals and its Legal Control in India. AIR 2004, p210.

¹⁸⁰ See, Gopal Bhargava, Environmental Challenges and Ecological Disaster, (1992), p. 154.

probable danger to human life, or any likely danger or grievous hurt from such animal shall be punished with imprisonment of either description for a term which may extend to six months or with fine which may extend to one thousand rupees or with both.

In this section, a person who doesn't take sufficient care of any animals in his profession shall be punished. Any animal ' includes' both wild and domestic animals. Any persons who keep wild animals like bear and tiger, which escapes and causes damage, shall be punished. Those persons who own such animals have a primary duty to protect the public against the mischief resulting for such animal being at large.

THE WILDLIFE (PROTECTION) ACT, 1972

A law is nothing but a reflection of the aspiration and mores of society and changes with time. Till the middle of the last century, the wildlife in India was more than present condition, and the habitat was intact at those times. The hunting was a popular sport. Also, the shooting makes illegal, when people hunt down the animals rather than believing it as sports. In the early seventies, it became clear that the decision-makers that unless a uniform, well-structured law was promulgated across the country, the survival of wildlife would be in danger. The Act Was therefore put in place, and it became applicable to all the states except Jammu and Kashmir, which later enacted its law called the Jammu and KASHMIR Wild Life (Protection) Act,1978.¹⁸¹

The wildlife protection Act was promulgated with three specific objectives:

- 1. To provide uniform legislation for the protection of wildlife throughout the country
- 2. To prevent, Hunting of and trading in wildlife or any product thereof.
- 3. To set parameters for establishment and maintenance of protected areas such as National Parks and Sanctuaries.¹⁸²

The wildlife protection Act gives Six Schedules which provides varying protection

- 1. Species listed in the Scheduled I and Part II of Scheduled II get absolute security. Offences under these are prescribed the highest penalties
- 2. Species listed in Scheduled III and Scheduled IV are also protected, but the penalties are much lower
- 3. Scheduled V includes the animals which may be hunted

¹⁸¹ See, Ashok Kumar, Laws that Protect Wildlife: The Wildlife (Protection) Act, 1972, (2002), p.18.

¹⁸² See, Nalin Ranjan Jena :People, Wildlife and Wildlife Protection Act., Economic and Political Weekly (1994) p 2767.

4. The plants in Scheduled VI are prohibited from cultivation and planting.

This was the first comprehensive legislation affording the legal measures for the protection of wild animals including birds, reptiles, amphibians, insects etc. and the endangered species in particular. It also provides for setting up of National parks and wildlife sanctuaries, regulation of trade and commerce in wild animals, products and trophies, etc. There are six schedules in the Act which lists the rare and endangered species to be protected.¹⁸³

The wildlife protection act, 1972 was passed by the parliament, and it consented to the president on 9th September 1972. It was amended in 2002 and received the consent of the president on 17.01.2003. it came to be known as The Wildlife (Protection) Act, 2002. The Amendment took place in the Act was in 2006, and it came into effect on 04.09.2006. By this amendment, Chapter IV B was added, which contained section 38Y and 38Z. The Act came to be known as the Wildlife (Protection) Amendment Bill,2006. After that, in 2010 and 2013, the amendment bill was introduced in the parliament but has not passed.

National Park: Means, an area declared whether under section 35 or 38 or deemed, under sub-Section (3) of Section 66 to be declared as National Park.¹⁸⁴

- **Sanctuary:** Means, an area declared as a sanctuary by notification under the provision of Chapter IV of this Act and shall also include a deemed sanctuary under sub- Section (4) of Section 66.¹⁸⁵
- **Reserve Forest:** Means forest declared to be reserved by the state government under Section 20 Of the Indian Forest Act, 1927, or declared as such under any other state Legislation.

INDIAN FOREST ACT, 1927

The Indian Forest Act, 1927 was enacted by the government of India on the previous Acts which were implemented by the British in, 1878. The main aim of the Act was to consolidate and reserve the areas covered by the forest, including the wildlife and also to control the forest produce such as timber. This Act also defined the procedures which were to be followed in declaring reserved, protected or village forests. Among these three categories of woods, the reserved forest is the most protected ones. Grazing of cattle, felling of trees, fishing, quarrying, use of forest products and hunting are not permitted in these areas and are hence punishable under the Act with imprisonment or fine.

THE FOREST (CONSERVATION) ACT, 1980

In1980, The Forest (Conservation) Act was passed to keep a check on the deforestation and conservation of forests and provide matters related to it and was further amended in 1998.

¹⁸³ See, S.M. Nair: Endangered Animals of India and their Conservation, (1992) p. 100

¹⁸⁴ See, The Wildlife Protection Act, 1972, Section 2(21)

¹⁸⁵ See, The Wildlife Protection Act, 1972, Section 2(26)

The Act has five sections for dealing with the Conservation of forests. This Act provided scope for the use of forest land for non- forest purpose with prior approval from the governments of the individual States in a restrictive manner. But the State governments did not have any mechanism for compensating any loss of timber due to logging activities and ultimately exerted pressure on the State governments for dissolving the restricted provisions of use of reserved forests or any other forests for non- forest activities. Currently, there is a complete ban o the use of forest land and non- forest activities without the government approval.

THE ENVIRONMENT (PROTECTION) ACT, 1986

The Environmental (Protection) Act was enacted in the year 1986 within an objective to provide protection and improvement of the environment as a whole. It also empowers the central government to prevent environmental pollution in all forms and also to resolve ecological problems arising in the country by establishing suitable authorities with adequate powers. The Act was again amended in 1991.

THE BIOLOGICAL DIVERSITY ACT, 2002

The biological diversity Act, 2002 was enacted by the government of India in 2002 to conserve the biological diversity in India, to make fair use of its components and framework for the equal distribution of benefits resulting from the use of natural resources and information. The Act was enacted to strengthen its obligation under The Convention On Biological Diversity (CBD) of the United Nations signed on 05th June 1992, since India is a party to it. This Act as an addition to other laws enacted for the protection and conservation of wildlife and forests.

JUDICIAL BEHAVIOUR

In India, there are many numbers of legal provisions dealing with wildlife issues. The decisions of the courts some time not much appreciated by the concerned authorities. However, the fact is that wildlife and the law have been subjected to exploitation all over again. The Indian Judiciary, while delivering the justice in wildlife matters exposed the governments on its failures and its activities which are resulting in favour of some of the poachers and hunters who are the main persons behind the killing of most of the animals including the Rare and endangered animals.

The Judiciary is the custodian of the rights of the citizen. If the citizen's right guaranteed under the constitution of India is violated, the court can use its power to grant relief in the form of damages or compensation. If any reason is broken or the laws do not comply with any person, the court can't see the wrong things happening and cannot sit idle. They have to see that the right's are not being violated by anyone. The courts have played an unfortunate role of turning back to interpret the laws in favour of the abuser, and it is only in the course of the last ten years that a citizen movement has arisen that has produced success in isolated areas and gained equal support from the judiciary. The Judiciary plays an active role in giving decisions in favour of wildlife preservation. Now the court is also participating in wildlife protection by giving appropriate sentencing and deterrent sentencing in wildlife crimes.

1. HUNTING

In India, the wildlife has been hunted traditionally for ages. Perhaps such hunting was sustainable when forest cover was such a vast, Human population was low, and wildlife has existed in high density. Hinting was more for subsistence and not for commercial interest. Various forms of wildlife are hunted for commercially valuable products like Horns, antlers, pelt, bone, feather etc. Charismatic animals like Tigers, Rhinos and Elephants are killed for high value in the international markets for their bone, horn and ivory.

In-*State of Bihar v. Murad Ali Khan¹⁸⁶*That hunting is an offence under Section 51 (1) of the Wildlife Protection Act. The Range Officer filed a case that the accused had shot and killed an Elephant in Range Forest and had removed the tusks. The Hunting of wild animals is to be permitted in some instances, for example, in self-defence. To decide whether in killing an animal, the accused acted in self-defence or not, the nature and ferocity of the animal will be a relevant factor.

In *I.R. Coelho v. State of Tamil Nadu*,¹⁸⁷The petition and other landowners living in the hilly areas of Tamil Nadu filed a complaint. It was said that the animals listed in Scheduled I of the Act were likely to damage their property, including standing crops. But the Wildlife (Protection) Act, 1972 prohibits the hunting of animals specified in Scheduled IV under Section 9 of the Act. They pleaded that the petitioner has the right to hunt these animals. The High Court Rejected the pleas and held that the wildlife (Protection) Act,1972 did not deprive the owner of holding enjoying and protecting the property. The right claimed by the petitioners to hunt wild animals when they proved dangerous to property was without a base.

In *Nabin Chandra Gogoi v. The State*¹⁸⁸, The petitioner, shot and killed a Rhinoceros with a gun and sent to trail under Section 429 I.P.C. and Section 25 (g) of Assam Forest Regulations. The charge under Section 25(g) has been failed as it occurred outside the sanctuary. The Magistrate sentenced the petitioner under Section 429 of the I.P.C., and the sessions Judge affirmed the Magistrate's judgment in an appeal. It has been said that the trapping of birds specified in Scheduled IV also comes under the word ' Hunting'

¹⁸⁶ AIR 1989 SC 1

¹⁸⁷ 1992 (1) Mad. L.Rep. 355.

¹⁸⁸ AIR 1961 ASSAM 18

defined in Section 2 (16) of the Wildlife Protection Act, 1972. Any person who traps a bird shall be prohibited under Section 9 of the Wildlife Protection Act.

2. PROTECTED AREAS (SANCTUARIES, NATIONAL PARKS AND CLOSED AREAS)

The Wildlife (Protection) Act, 1972 was enacted when the environmental consciousness was at a low ebb.¹⁸⁹ However, the provisions for declaring of the Wildlife Sanctuaries and National Park have 'ecological, faunal, floral, geomorphological¹⁹⁰ Or zoological importance. Entry and movement in these areas are restricted, and any private rights in the territory are subjected to the conditions of a permit granted by the Chief Wildlife Warden, such requirements are imposed for preservation and protection of the Sanctuary and National Parks its wild animals and their habitats.¹⁹¹

In *Pradeep krishen v. Union of India and ors*.¹⁹²The petitioner challenged the order of Forest Department, Madhya Pradesh in which the law of permission to collect the tendu leaves from the Sanctuaries and National Parks to maintain their traditional rights. Petitioner contends that it violates Article 14,21, 48-A, 51-A(g) of the constitution of India. Petitioner also challenged that the collection of tendu leaves through the contractor goes out of the scope of the Wildlife Protection Act.

In this case, the Supreme Court pointed out that the country's overall forest cover is below the ideal level of $1/3^{rd}$ of the total land. We can't, therefore, afford any further shrinkage in the forest cover in our country. If one of the reasons for the decrease is the entry of villagers and tribal's living in and around the Sanctuaries and National Parks, there can be no doubt that immediate action must be taken in these areas to avoid disruption or harm to the ecosystem.

In *Gujarat Navodaya Mandal v. the State of Gujarat¹⁹³*Which is related to laying of the pipe lie inside the Sanctuary. The petitioner challenges how they permitted Reliance Petroleum Ltd. To lay a pipeline in the Marine National Park / Sanctuary. The plaintiff claimed that the Chief Wildlife Warden had no jurisdiction to grant and assist clearance order under Section 29 of the Wildlife Protection Act,1972, he also contended that the said order would render damage to the forests as well as Marine Life and environment.

The Supreme Court, while rejecting the petition held that, both Central Government and State government have been taking necessary precautions to ensure that either the ecological or the environment is damaged while implementing the project in question.

¹⁸⁹ In Bad or Weak State

¹⁹⁰ The study of landforms, their processes, form and sediments at the surface of the Earth

¹⁹¹ Annual Survey of Indian Law, Vol. XXXVI,(2000) p.261.

¹⁹² AIR(1996) SC 2040

¹⁹³ 1992(2) GUJ.L.HER.359

In *Jalandhar Chakma v. Deputy Commissioner of Aizwal*¹⁹⁴ Case, the petitioner challenged the order of notification passed by the Administrative officer under the Wildlife Protection Act,1972. The rules were related to the eviction of certain villages that are within Dampa Wildlife Sanctuary.¹⁹⁵ The petitioners have been staying within the area described in the notices before passing of the order, and they also have their homes and cultivable lands. The rules were made under the Wildlife Protection Act. Under Section 18 of the Act, the Development commissioner issued a notification declaring the area given in that notification as Dampa Wildlife Sanctuary. It appears that the respondents have not followed any provisions of chapter IV of the Act. The petitioner argued that such information had not been published in the Official Gazette and therefore, the said notices can't be sustained. The court, after observing the provisions of Chapter IV of the Act held that the said order is without jurisdiction and they were to be set aside.

3. TRADE-IN WILD ANIMALS, ANIMAL ARTICLES, AND TROPHIES

Sec 39 of the Wildlife Protection Act,1972 is critical for a straightforward reason, and that is all the animals, animal articles and trophies in respect of which any offences against this Act or any rule or order has been committed, or ivory imported into India and materials made from it shall be the property of the State Government.

In *Rafique Ramzan Ali* v. A. A. Jalgaokar¹⁹⁶, The petitioner, displayed for sale of Lizard and Snakeskin articles without declaring to Chief Wildlife Warden. He was convicted under Sections 39(3), 40(2), 42(1), 44(2), 49 read with section 51 of the Wildlife Protection Act. The petitioner argued that the Act s designed to protect certain species of wildlife as listed in the scheduled of the Act. The Act does not apply to all the types of snakes and Lizards species. The prosecution could only proceed if the articles seized were made of protected species of snakes and lizards.

After hearing both the parties, the court concluded that the complaint did not disclose any offences especially the articles seized were made of skins of species of Lizard and Snakes specified in the scheduled. So the court held that the petitioner had not committed any offence under the Act. Hence the conviction was set aside.

In *B. Nathmali Vaid v. State of Tamil Nadu*,¹⁹⁷ The tusker elephant was found on the land of the petitioner. The forest officer and veterinary Doctor came to the spot. They took the two tusks in the custody of the dead Elephant by giving Acknowledgement that the Ivory could be returned to the plaintiff after getting formal approval of the higher authorities. The defendant didn't answer about the Ivory. The petitioners' demand was

¹⁹⁴ AIR (1983) GAU. 18.

¹⁹⁵ MIZORAM

¹⁹⁶ 1984 CRLJ 1460. (BOM.)

¹⁹⁷ AIR 1979 MADRAS 218

rejected. The petitioner sued In court, contending that the animal found dead on his land was not government property.

The trial court said that the tusker, which is a wild animal having been found dead in the plaintiff's area, is entitled to the ownership of the tusks. In a regular second appeal, again the property of the Ivory has contended. In this case, the court said that the elephant was a wild animal, and there was no proof of any chase. The wild animal has voluntarily left the Reserve Forests and died in the Plaintiff's Land; therefore, in the view of the court, the government can't claim the ownership of the tusks in this case.

In *Kishore Chandra Mardaraj* v. *Radha Gobind Das*¹⁹⁸ In the case, the plaintiff and his shikaris inflicted three wounds on an elephant that appeared in their forest. But the elephant escaped and entered the defendant's land. The plaintiff's and shikaris again inflicted the same wounds upon it but did not kill it. As a result, subsequently, the elephant died of the defendant's land. The ownership of the tusks contended. The court held that nobody has an absolute property in an animal which is *ferae naturae* a wild animal is the property of the person in whose land it happens to be for the time being so long as it is in the area of the person, he is entitled to take it and kill it, but when he chose to quit and go into the land f another, then he ceases to have any property in it, and such wild animal becomes the property of the other person in whose land it chooses to go

In *Ivory Traders And Manufacturers Association v. Union of India*¹⁹⁹, The petitioners, challenged the trade in imported ivory and articles made from this ivory on the ground that it violated their Fundamental Rights to carry on their occupation or business guaranteed Under Article 19(1) (g) of the constitution. Rejecting the challenge, the High Court said that the prohibition was justified since the sale of ivory by dealers would encourage poaching and killing of elephants to replenish the stocks held by petitioners. The High Court Expresses the concern over serious threats of Indian Elephants, mainly south India.

The High Court concluded that under the constitution, the trade in ivory was similar to a precious activity like the business in intoxicants and could be lawfully banned. The petitioners pleaded they would only deal in mammoth ivory which having no threats to elephants; the Court said that it could not distinguish between the two types of ivory and hence the ban applied to dealers in mammoth ivory articles as well.

The case type case was further decided in *Indian Handicrafts Emporium v. Union of India*²⁰⁰, The petitioner, challenged its violation of Article 19(1)(g). The court held that the trade which is dangerous to ecology and may be regulated or prohibited. Implementation of the directive principle contained in part IV of the constitution is within

¹⁹⁸ AIR 1919 PATNA 400

¹⁹⁹ AIR (1997) DEL. 267

²⁰⁰ AIR (2003) SC 3240

the expression of restrictions in the interest of the general public. The prime object for which the dealing in ivory imported from Africa had been prohibited was to see that while holding the stock, the people may not deal in Indian ivory. The Amendment Act indirectly seeks to protect Indian Elephant and to check their future depletion. Therefore, Article 49-C is not *ultra vires* Article 19(1) (g) of the constitution of India.

The State contended that because of the sale of ivory by the dealers, poaching and killing of Elephants would be encouraged. Preventive measures as regards poaching and killing of Elephants for ivory are a difficult task to achieve. Thus, parliament must have thought it fitting to put a complete ban on ivory trade.

In-*State of Tamil Nadu v. Kaypee Industrial Chemical (P) Ltd.*²⁰¹ the petitioners, a registered company engaged in the manufacture of lime ere orally informed that all corals had been included in the Scheduled I, Part IV A of the Wild Life Protection Act, 1972 as per Notification issued by the Ministry of Environment and forests which warned of the legal actions under the Act against the purchase, transportation or use of any kind of coral. The coral in the question is lifeless substance, which is secreted by marine polyps (corals)

The Madras High Court noted that the word ' coral' could have two meanings i.e.

- 1. A Marine Living Organism
- 2. Dead Secretion or outer Skelton of the said living organism.

It opinioned that the items mentioned in the notification only referred to the living marine organism, are not the dead secretions or the outer Skelton of the dead sea animal. Hence, the second interpretation of the word 'coral' does not come within the ambit of the impugned order. Further, the court observed that the argument is in the consonance with the aims and objectives of the wildlife ProtectionActm1972. The court dismissed the petition and held that, as long as the writ petitioners do not catch and kill animals by serving their external Skelton of the dead animal, which is fast ashore after the death of the reef-building coral, the authorities have no right to interfere with the activities, as they do not violate the permission of the Act.

4. PREVENTION AND DETECTION OF OFFENCES

Any person, who contravenes any provisions of this Act, shall be guilty of an offence against this Act and shall on conviction, be punished with imprisonment for a term which may be extended to three years or with fine which may extend up to Five thousand rupees or with both.²⁰²

²⁰¹ AIR(2005)MAD.304.

²⁰² The Wildlife (Protection) Act, 1972, Sec. 51.

In *Jagdish Singh v. the State of Bihar*,²⁰³ The appeal was filed against the order of the trial court which convicted the petitioner for imprisonment for three months for killing a Bison. So far as the sentence was awarded to the petitioner is concerned, it is submitted that the occurrence took place in 1974, i.e. ten years ago and no fruitful purpose would be served in sentencing them who are on bail, again to jail after a lapse of 10 years.

If the petitioners failed to pay the fine within the time specified, modification in the sentence would become inoperative. It is pleaded that the punishment should be converted to fine. By looking at such cases, we can conclude that the judiciary must play a crucial role in giving justice so that such incidents do not occur in future. Otherwise, justice will be denied.

In *Rafique Ramzan Ali* v. A. A. Jalgaokar²⁰⁴ The complaint did not disclose any offences, especially whether articles seized were made of the skin of species lizards and snakes specified in the scheduled. So the court held that the petitioner had not committed any offence under the Act. Hence the conviction was set aside.

In *Trilok Bahadur Rai* v. *State of Arunachal Pradesh*,²⁰⁵It is in the record that the accused did not go out of his post while the Tiger approached him. On three shots being fired in the air the animal instead of fleeing away charged at the accused seeing which the accused fired two shots to kill, which killed the tiger. He was sentenced for six months under Section 51(1) of the wildlife protection Act. And High Court interfered that he was acting in his self-defence and therefore, wholly protected under Section 11(2) of the Act.

In-*State of H. P. v. Mohammod Aslam Wani*²⁰⁶, The respondent, alleged to have sold Shahtoosh shawls which are highly protected as it is made-up of Chiru and Hunting Chiru is an offence. There was non- compliance of the provisions of Section 100(4) cr. P.c. in joining two or more respectable witnesses of the locality in which the search was conducted. Neither any efforts were made by the investigating officer, in charge of the raiding party, to associate independent witnesses, through available, nor any explanation was given concerning the non- compliance of the provisions of Section 100 (4) of the Cr.p.c. the acquittal was upheld by the court.

In-*State of Madhya Pradesh v. Dariya and ors.* Notorious Tiger Poacher Dariya and his wife Bhagwati were convicted under the Wildlife Protection Act, 1972 on July 28, 2010, in Madhya Pradesh. The trail of the case had been pending for more than 21 years. Dariya has sentenced to three years rigorous imprisonment and a fine of Rs. 10,000/-while his wife Bhagwati was sentenced to the same quantum of punishment, with one and a half years of probation. The prosecution of this case was conducted on behalf of the forest Department.

²⁰³ 1985 CRLHJ1314

²⁰⁴ ibid

²⁰⁵ 1979CR.L.J.1404

²⁰⁶ 2010(02)HIM. L.R. 1049

In-*State of Madhya Pradesh v. Ittu Baiga and ors.* On 15th November 2010 at katni, Madhya Pradesh, three poachers,(Ittu Baiga, Bahilal Baiga, and Iqbal) were sentenced to rigorous imprisonment of six years and fine of Rs. 10,000/- each under the Wildlife Protection Act, 1972. On 25th June 2009, three had poisoned a water hole in Dhimarkheda Range of Katni Forest Division which led to the death of nine wild animals, three leopards, two civet cats, a spotted deer and a langur monkey. One of the poachers (Iqbal) is absconding.

5. COMPENSATION

In-*State of Himachal Pradesh v. Halli Devi²⁰⁷*, The black bear attacked the respondent. As a result, the respondent sustained severe injuries like loss of eyesight, nasal bone, compound fracture, left forearm etc. She had 100% disability, and a claim of Rs.1 Lakhs was made against Divisional Forest Officer.

There was no evidence that the animal was let loose in the jungle by the state officials. Hence, the claim for damages as a result of the attack by the wild animals could not stand. Animals hunted or kept or bred in captivity are indeed the property of the State. But the mere fact is that the killing of animals roaming in the jungle is prohibited under the law which does not mean that the state is their owner—the *exgratia* payment of Rs. 50,000/-does not mean that the government had accepted the liability. Himachal Pradesh High Court held that there is no provision in the wildlife protection Act for such a Relief.

In *All India Mobile Zoo Owners and Animal Welfare Association v. Union of India*²⁰⁸The High Court of Delhi, where the petitioners prayed to the court to issue the writ of *Mandamus* directing the Chief Wildlife Warden under the Wildlife Protection Act, 1972 for adequate compensation of Rs. 15 to 20 Lakhs in the event of closure of zoo, as ordered by the warden under this Act. The petitioners challenged the order which rejected the recognition of their mobile zoos under section 38(H) of the wildlife protection Act. As they failed, they were left with no alternative but to surrender the animals before the wildlife warden for which they seek instruction from the court for compensation.

The petitioner submitted that their life was wholly dependent on animals, which they surrendered, and they deserved to be compensated for the same. The court after hearing both the parties held that the petitioners were entitled to compensation as regards animals, the possession and holding of which was not illegal under the Act of 1972, but were surrendered to the authorities. But as to the holding of animals, which was unlawful under the Act, no such compensation needs to be paid, nor could any *ex-gratia* payment be made, as the petitioners were holding the animals without the permission of the authorities.

²⁰⁷ AIR 2000 H. P. 113

²⁰⁸ AIR 2000, DEL.449

6. REGULATED TOURISM IN SANCTUARIES

The Honorable Supreme Court in the order dated 24th July 2012 given on Public Interest Litigation (PIL) frilled by Bhopal based non- profit prayatna has put an end to all tourism activities in the core areas of the Tiger Reserves in India. By placing a complete ban on tourism activities in the core areas, wildlife tourism can be controlled and regulated, but it will surely not help the wildlife in the tiger reserve. The wildlife protection act, 1972 as amended in 2006 states that the core zones or vital wildlife habitats' must be untouched for a sustainable population of tigers in the tiger reserves. The guidelines were distributed by the NTCA in November 2011.

Having inviolate habitat of tigers is an ' ideal' situation for conservation. It is unjust to blame only the tourism sector for the extinction of tigers in India, as it is only a problem out of many. Tigers is Sariska, and Panna were wiped out completely. Here the tourists are not responsible for the Act; it's the poachers. They are responsible for the decline of tigers. If having no tourism in the core areas was good for wildlife, the tiger reserves like Buxa(West Bengal) and Palamou (Jharkhand), where wildlife tourism has been almost extinct, had become models of sustainable tiger populations would have been placed since 1973, when the Project Tiger was implemented in India.²⁰⁹

According to the 2010 Management plans,²¹⁰ The Eco-tourism in the sense of Tiger Reserve is ecologically upheld in nature-tourism,m which is emerging as an essential component of the tourism industry in India. It is distinct from the 'Mass Tourism', having sustainable, equitable, community-based efforts for improving the living standards of local, host communities living on fringes of Tiger Reserves. Eco-tourism is planned to be sponsored with financial support to host the community through 'soft loans' from eco-development committees, following the site-specific 'Ecotourism plan' and carrying capacity of Tiger Reserves in the buffer areas.

Without affecting the tiger habitats by the tourists, the existing tourism activities in such areas should be in the outskirts of the buffer zones. Design of tourism-related businesses and facilities around or within the buffer zones of the Tiger reserves with input under the tiger project should be continued.

To provide low costs accommodation for tourists, providing guide services, providing sales outlets, managing excursions, organising ethnic dances, and similar other programmes will be an opportunity for the Management.

²⁰⁹ The Supreme Court's green signal' to wildlife tourism in tiger reserves. Available at http://corbettfoundation.blogspot.in/

²¹⁰ https://projecttiger.nic.in/WriteReadData/PublicationFile/Compendium(2).pdf

<u>CHAPTER – 7</u>

CONCLUSION AND SUGGESTIONS

The Right to Survive on the planet is not only a right that is made for Human Beings but also the Animals and other species too. Through natural causes or by human intervention, if one of the species have gone extinct, it means it's gone forever. Extinction is a 'biological Fact' because no animal has lived for more than a few million years without being something new, dying out entirely. The damming of rivers, clearing of forest for human use, Hunting etc. has made an impact on the wildlife and its habitat depletion which takes many of the Species to Endanger them or made to become extinct from the planet.

Through my research work, I have been seeing that the Human being is the leading cause of these problems, as the man's development has always been one of the beneficial things to the Human race, through it the animals has been suffered too much. Man's innovations, such as modern and modified arms use, the industrialisation, urbanisation become a significant threat to the wildlife populations in the world. The increase in the human population, illiteracy, poverty has been one of the critical causes of the depletion of natural resources and Wildlife.

Wildlife is the animals which are not touched by the human factors; it includes all type of animals, reptiles, fish, birds, invertebrates, amphibians, aquatic and all forms of vegetation and its habitat. The animals should be protected inside the forest or in the wild. These animals should be able to live in an environment where Human intervention should not be there. Animals can be seen in a variety of habitats such as Deserts, forests, rain forests and in urban areas too. The Wildlife conservation is yet another thing that insight that in the modern developing countries as well as the developed countries require for the protection of the wildlife and their habitat, otherwise without human efforts to preserve the wildlife and their habitat it will become extinct. Many animal species have gone from our planet earth, the majority of the extinction is due to environmental change, degradation and destruction of their habitat, deforestation, agriculture expansion etc. The present extinction of animals and other species are made by us. These extinctions may cause an imbalance in nature, and for balancing it, one should wait for 2,000 to 10, 000. The Flora species are essential in wildlife habitat, without the flora fauna cannot survive, thus threatening many animals species to become extinct. Due to the death of many animals, other animals those who depend upon these will also die. As a result, more animals can be threatened.

In the 1930s, with the creation of Jim Corbett National Park, India has been leading in the wildlife conservation. It saw the man's reaction to the wild animals which the human beings gave up hunting activities for dedicating his/ her life for wildlife conservation which has made a huge come back in the field of wildlife conservation. Hunting was the main activity in early Indian society, where people Hunts animals for their livelihood. That was taken as a weapon in the past many centuries, as in the way of hunting for trading animals for money. The hunting is accompanied by Poaching of animals for their meat, skin, ivory, horns, musk's

etc., which has considerably reduced the number of animals in the present world. These hunters or poachers are still dominating the world, as killing animals for a vast amount of money in the illegal markets around the world. These animals find it very difficult to survive in these conditions as they are extremely hunted. Wildlife conservationists protect these species in breeding captivity, and after seeing suitable conditions in the protected area, they are released.

There are many conventions in the world in which India are the participants to conserve the wildlife species and those species that are becoming endangered and extinct. The NGOs are also essential organisations, which plays a vital role in preserving the wildlife and its habitat as well as the environmental protection and biodiversity conservations. They also impose restrictions on the export and import of wildlife products and to impose severe penalties on those who engage in such activity, protect wildlife against pollution and natural hazards, surveying and collecting all wildlife information, in particular, their number and growth etc. as the conservation measures are our traditions we in India, have still better wildlife conditions apart from the vast population.

King Ashoka, who is the first person against the killing of animals for sports and food, he said that the king has to preserve animal life. In such a country the wildlife poaching and hunting are more prevails. As the poaching of animals is a trend in this world, the illegal products of animals have a massive demand in the Indian markets as well as around the globe. These animals have been killed even after knowing the laws and punishments. There is legal and illegal wildlife trade; the legal wildlife trade is those, a deal that is legally moved across the countries as per one country's law, the illicit wildlife trade is those trade with the particular country has restricted the business of that animal and poachers hunts them and trade it for money. Such illegal trade of animals can affect the ecosystem and environmental imbalance.

Due to the regulations of law, the enforcement of the law and punishment is at a low rate. Because of weak prosecution also, these culprits were acquitted very quickly. Harvesting of animals is also one of the primary root cause of the problem of illegal trade in animals. The illegal trade that happens is the items that are going into the legal markets around the globe. As we can see that the significant animals are undocumented and on a global scale, they can make huge amount f money both make the poachers do the illegal acts²¹¹. These people trade not only by hands or through the postal system, these animals used to sell these animals through internet as in the digital era, handling of the internet may help them to reach the buyers by the poachers very quickly, and they can buy any type of animals through it even their products are going through many of the shopping sites through which also people makes a lot of money. So in the first chapter, we can see the concept, importance and efficacy of wildlife conservation and its impact on the wildlife trade.

²¹¹ For more details, see Chapter 2

The second chapter is about wildlife management and the rare and endangered species concerning the Human-animal conflicts. In this chapter, one can see how wildlife is managed by using the best tool available, looking at the needs of animals rather than humans. The wildlife helps, the balance in the lack of wildlife by providing habitat in the sustainable and survival-based environment which helps to balance environment, tourism-related activities; researchers can make their study easier, for helping to maintain the cultural assets of the country by giving such habitat win which they can survive.

The protected areas, such as national parks, wildlife sanctuaries wildlife can be managed by these type of conservation measures as India is a country of biodiversity hotspot as the forest cover is about 22% of the geographical area. The setting up of the National wildlife board, Wildlife Act, 1972, animals can be easily be made into conserve in the protected areas. The zoological parks and gardens are also such centre for the animal conservations. The protected areas of the country contain around 20.42 % of the forest in the country. Through these protected areas, the animals are being kept out of people from their habitat. These can help to conserve the endangered and extinct species of animals, birds, reptiles and many other animals. In 1991 the government of India had been committed funds for the eco-development sites for the development of ecology and its wildlife species.

The rare species and endangered species of animals are the most wanted animals that are to be kept in these protective zones or the buffer areas as the species are most vulnerable. These poachers, overgrazing and crowding, predators, habitat loss are usually the main reasons for the endangered species to declined its population and to get extinct. So for that, the country has been protected these animals under the special care. There are many steps taken by the respective state governments and the union governments for the protection of these animals. The Tiger, Leopard, Asiatic lions, Red pandas, Nilgiri Thar, Golden langur, Himalayan brown bear, Malabar civet, rhinos are most of the animals that are becoming or already have endangered species in the list of IUCN.²¹²

The chapter also discusses the eco-sensitive zone and human and wildlife conflicts. Through these conflicts, there is much loss to animals. Man for their enjoyment destroy the forest land, and animals lose their habitat, and they come outside for food and water, resulting in man's crops destruction. Where man fights against them and kills it, these are also one of the main problems of the extinction of the animals. One of such animals is leopards and elephants who comes on to the human lands for their survival, which subsequently loose wither the human or animal life. There is another critical thing that the people are driving their vehicles through the protected areas and in nights, which can kill many types of animals need to be rechecked. The country should preserve these animals for a better environment and a better ecosystem.

²¹² For more details, see chapter 3

The Third Chapter is talking about law and enforcement for the protection of wildlife around the world. International legislation is a tool that can enhance wildlife conservation. The wildlife conservation law s has begun in the year 1900 B.C. the global legal structure has made to stop the illegal wildlife trade among the nations and for the betterment of the wildlife habitat. There are many conventions in which all the countries around the world participate in rescuing wild animals from extinction. Through the trade, the world is witnessing a large number of forest cover and wildlife have been declining from the globe.

The international wildlife law is a collection of different convention and conservations of the wildlife, which include legislation that binds all the nations together. The Convention on international trade in endangered species (CITES)²¹³, Convention on Migratory birds(CMS), Convention on Biological Diversity (CBD), The Ramsar Convention, The World Heritage Convention and the regional conventions are focusing on the countries like Africa, Antarctic or Europe. Through these conventions, international law makes legislation on wildlife and its products from international trade as well as from illegal activities.

India, as a part of the CITES Agreement for the conservation of the wildlife and other species which will threaten the habitat and the survival, it has been monitoring the inter-state trade of wildlife and its products. India has already submitted its proposal regarding the changes in the listing of wildlife species in the year 2019, Geneva. Due to high threatening of the wildlife trade and loss of its habitat India keeps a great eye in the illegal trade. Wildlife permit for the CITES can enter the deal from the country to country, but the country's law also should be looked into it before the trade is going to be held. Without permission, such animals cannot be traded from one country to another country.

Due to the illegal Ivory Trade, the conservation of the Elephant is one of the major problems that the world is facing today. The importing- exporting of Asian, African elephant ivory has been increasing in the present world. During the last 25 years, poaching of African elephants has been declined the elephant population by half. The international legislation with the Regional law makes it possible to handle the foreign trade of wild animals. The World Trade Organization(WTO) Animal welfare, National Export-Import Policies etc. plays a vital role in the wildlife trade.

The (International Union for the conservation of nature) is another convention which is helped to conserve the species and its habitat. It plays an essential role in the protection of the biodiversity, ecological imbalance, and conservations of Environment. The IUCN is the primary provider or publisher for the IUCN Red Listed endangered or threatened species around the world. The CITES, Ramsar conventions and other conventions take data from the IUCN and make a plan accordingly.

The Fourth Chapter comprises of an embarrassing situation in India about the illegal wildlife trade and their products. When we compare this in the statistical form, it is in horrible

²¹³ For More Details, See Chapter 4

condition to know how illicit trade happens in India. Humans have destroyed most of the natural resources and wildlife habitats for their needs, which includes flora and fauna. The exploitation of animals by hunting and poaching in different parts of India had led to the decline of flora and fauna. Apart from the various legal provisions under the country, it is still a horror when it comes to wildlife trade.

The Indian Tiger, Leopards, Elephant, Rhinoceroses, Pangolins, Star Tortoise, Snakes, Reptiles, etc²¹⁴. Which are the animals that have sold for their goods in India. These poachers poach these animals with the help of the local tribes, whom they have bought them for the animals and to look after the patrolling enforcement officers. The poachers who reside on the outskirts of the protected areas knows well about the animals, its habitat, and how many animals are there in the protected areas. These poachers will never get caught, and if at all, the level of getting convicted is low. So this is one of the reasons for the poaching of animals and their products.

The other reason for the poaching is that it has a massive demand in the international and Indian markets. Due to this in India poachers, if at all having risk they take such a chance to kill the animal and take it away. The demand in these markets for a considerable sum of money makes the poachers do the crime again and again. Such that the animals, including the rare and endangered animals, get decline and extinct. The animals that have been poached mainly for their skin, claws, tusks, bones, meat, hair etc. using it for different types of products including for medicinal purposes. Ivory is one of the most money-making material in the wildlife trade. These poachers use many kinds of materials for killing animals, which are so brutal. Most of the animals have executed using traps inside the protected areas. Animals traded to china which is the hub for the trade. In China, they use many of the animal's products for traditional medicine.

When we look at the statistics of each animal, we can see that most of them are on the verge of extinction, some of them has increased its breeding, some of them had already extinct. The Tiger population in the country is about around 3,000 in India. Leopard and Elephants are the animals that died due to conflict with humans, mostly making them declining its half of the population in the last ten years. The Rhinos which are killed for their horns which is another animal going to get extinct if the species is not taken proper care off. The statistic shows that the poachers have increased in the current scenario at all the places near the protected areas and the enforcement teams are not able to catch the poachers as they use a different type of arms and ammunition or weapons for the illegal trade of animals. Such that total failure of mechanism in the country has led to decreasing of animals and their habitats.

²¹⁴ For More Details, See Chapter 5

The Fifth Chapter comprises of the judicial, constitutional and other legal aspects of the law relating to wildlife in India.²¹⁵ In the Year 1887, the first codified law that has come for the wildlife protection, Wild Birds and Game Protection Act. The Madras Elephant Preservation Act, 1873, Wild Birds and Animal Protection Act,1912. After many years, the first comprehensive legislation was passed in the parliament of India. Wildlife Protection Act, 1972. There are many provisions in other legal aspects too. Such as in the Indian Penal Code Section 47, 289, 428 and 429), the prevention of cruelty to animals act, 1960 also came for the protection of Animals.

There are many constitutional provisions that have been put forward for the protection and safeguard of wild animals. The primary intent for such legislatures was to preserve the wildlife from hunting and poaching. The forty-second Constitutional Amendment acts were passed,1976 for the protection of such wildlife, which is the fundamental duties of a person (Article 51-A(g)) and Directive Principle of State policy which a state must fulfil (Article 48-A) For the protection of wildlife and its habitat. The legislations for developing water, soil, natural resources and to protect and improve the environment should not harm the tribal population. The Scheduled VII of the constitution in which Article 246, the protection of wildlife have moved from state list to the concurrent list.

The Wildlife protection act, which provides uniform legislation for the protection of wildlife throughout the country. It set many parameters for the establishment of protected areas such as National parks, Wildlife Sanctuaries. The Act, prohibits all types of illegal activities, trade, hunting business with the wildlife. As we can see that there are many people's like Sansar Chand who was selling wildlife products for 35 years has been arrested according to the wildlife (Protection) Act,1972. It is not only him who do illegal business inside the forests, like him many others too, which makes the law blend with unlawful things and do such activities.

Other Legislations like Indian Penal code, the Indian forest act, the forest conservation act, environmental act, biological diversity act etc. plays a vital role in the protection of wildlife and their habitat for preserving them for future and not getting endangered. For the protection of wildlife, we can see there are many constitutional and other legislations which has somehow helping the enforcers to do their jobs. If such enforcers don't take up the legislation seriously, there will be many illicit activities which will happen inside the protected areas.

The judiciary is an organisation which plays an essential role in the protection of wildlife cases. It is where the rights of the citizens are guaranteed under the constitution of India if it is violated, the court can use the power to grant in the form of damages or compensation. However, the conviction rate in the wildlife case is shallow, as the evidence won't even come to the court because of the reduced application of the law by enforcement from the forest department. The forest dwellers hunt the animals for their survival, the tribes who stays at their forest may overlap with prey and predator. The case of Salman khan and Pataudi is one

²¹⁵ For More Details, See Chapter 6

of the examples of hunting wildlife. They are not like the tribals, who hunts animals for survival. These people do it for pleasure had killed the blackbuck. We must see that these animals are threatened species, and killing them will cause significant consequence like the extinction of the species. The corruption is a significant problem for the conviction rate to come down as the poachers having links with the senior bureaucrats and politicians. Despite many institutions such as National Wildlife preservation and Control Bureau, Wildlife Crime Control Bureau, intelligence wings etc. to stop the illegal trade and poaching of wildlife in the country, the crime has not been controlled to till date.

Thus, from all these chapters, we can conclude that our law that has been listed in the constitution of India or any other provisions is strong enough to punish the victims of illegal trade. The poaching and the hunting activities have been going throughout the country, apart from the laws that are prevailing in the country. The main problem when it comes to wildlife crime is how these laws are enforced. If the rules are well implemented by the enforcing officers, then there won't be any crimes committed by the poachers. The thing is we need proper enforcement wing to put the law into theory and act it when it is most needed.

We can see that in the Indian state of Bihar, the sonpur cattle fair takes place, which is also known as *Harihar Kshetra Mela*, which is the biggest cattle fair of Asia rooted in the Hindu mythology. In this fair large number of animals, especially the elephants, have been lined up for sale as we know that the Mela has prohibited trade in elephants only after the strict enforcement of the wildlife protection act, 1972. In 2013 TRAFFIC revealed that the illegal trade in animals trade is rampant under the guise of the fair according to Section 40(2) and 43 of the said Act, the business of such animals would amount to be illegal. Many Birds are unlawful to be traded been a part of the Mela. When we see such things, it can be said that there is a significant failure in the official or the enforcing team.

We can also see that animals which are protected under the Act, have been in religious places. The Srikurmam temple in Srikakulam, Visakhapatnam, which is the temple dedicated to Kurmam(Tortoise) which is an avatar of Lord Vishnu. The temple shelters more than 250 protected tortoise which is not clean and healthy. The officials are not taking action against these because of the only reason, its religious. So if something that is protected under the wildlife act and becomes sacred, the enforcing team get failed to act upon it. The judiciary has also told that tortoise shouldn't move from their temple enclosure. It is one of the failures of court too as it is an animal which is endangered and been kept under the red list of IUCN.

The other problem is with judiciary where the judiciary is not acting to these cases strictly. There are not imposing good results as when it comes to the court, and there will be no evidence against the culprit to take him behind bars. The poachers have been left without conviction because these people will say in court that for the self-defence they have shot the animal and killed it. Many poachers escape like these.

Another point is that poachers will be prosecuted for only if they have killed or hunted certain species of animals listed in the scheduled of the Act which should be a protected species. If the act does not apply to any animal that is not in the list or the animal is not a protected

species, then it is believed that the accused persons have not committed any offence and the court will set aside the conviction. When such things happen, the animals that are not included will also get extinct from the planet, and it will also affect the food chain. The same thing happened in the Kaypee industrial chemical case in 2005 that the high court of madras noted that the coral has two meaning in which the case only refers to the living marine organism ad not the dead one. If the dead one is caught, then the authorities have no right to interfere in the activity. These also a significant fall in the judiciary. In another circumstance, it's the judiciary who must play a vital role in giving the justice on time, such that there will be no incidents of such nature of time-lapse will occur, and justice will not be denied to citizens.

Thus what I have seen in my research work is that there are many failures in law and in legal aspects in giving the verdicts. Such that when we talk about the law or the legal obligations, the weakest problem or the implementational Lacuna in Wildlife Protection Act,1982 is that:

- 1. According to Section 4 of the wildlife protection Act, 1972, the appointment of the Chief Wildlife Warden (CWLW), Who is a person revolve around the Wildlife Protection Act(WLPA). The CWLW, who acts upon the WLPA, has a duty towards the protection of animals, but it has seen that the CWLW, is not full-filling his statutory duty comprehensively as provided by the WLPA. Some of the instances that can be taken into consideration are :
 - After 48 years of WLPA, till now the CWLW's power to carry out a settlement in the protected is under Sec. 18 to 26 was not even started.
 - The power of CWLW, to regulate the inflow and outflow of water and to take cognisance for the destruction of wildlife and its habitat has not been considered as a leader from the front.
 - Another CWLW issue, which does not take action even when section 27 and 28 provides for registration of entry, arms licenses and cattle diseases.
 - There is no investigation or Seizure Officer nor a Tribunal which should have been created for the property Seized from the illegal hunting or trade/ poaching which was provided in the Amendment of 2002.
- There is a conflict between the legislative intent of WLPA and Forest Rights Act, 2006 as the poor farmers and tribal's always come in battle with the animals and forest guards.
 - When forest dwellers who with intention also when they get inside the forest of from outside, kill an animal, they use section 11(2) of the wildlife act to escape from conviction. Such that the Self defence in good faith is exploited.

- The Punishment for the wildlife crime is very low as most of them escape by the said self-defence or by any political hold or by senior enforcement officers.
- Many of the species are not covered in the Wildlife Act or IUCN or CITES which regulates the commercial trade of wild animals. If there is no "No Objection" certificate, the courie charged under the customs act or foreign trade act for the goods, and the courier is let off after paying the penalty.

When we look at the Lack of Coordination and Institutional Capacity, we can see that the WLPA has many problems in it.

- Before knowing the act, we should see the forest, the animals in it, the zones, the animal behaviour, how the landscape is, fragmentation, the habitat of animals etc. the forest guards who are watching the forest are not given specific training or knowledge of these things which is a failure for the illegal activities inside the forest.
- When the poachers come inside with the most modern guns and trap the animals, these guards are not given any sort of weapons, and if there is a conflict between them, the guards always pull back.
- The population in the country are increasing, such that people need land for many purposes such as agriculture, so people encroach into the forest area and takes the territory. Here the animal habitat or fragmentation has been destroyed. If such a thing happens, the wildlife corridor will decline. And animals will come into the human habitat where the conflict begins.
- The forest departments, when they caught any animals live they don't have a storage facility to keep such animal till the court issues a release order.
- When the forest departments catch the poachers inside the forest area, the poachers will somehow get acquitted, the conviction rate of the country is only 2% of the crimes reported. Such that the fear in the minds of the poachers will be very little as it encourages the perpetrators to do the evil again and again.
- All the poachers have studied how not to get caught and where the enforcement is weak. Once they pass the international boundaries, they cannot be captured. As far as in India, there is a heinous crime in illegal wildlife, there no control mechanism to look into the international borders and transport facilities.
- When the poachers poach and take away the things they wanted, the guards might see, or the customs or any other investigating officer will see after days or if at all in airports if they see any bones of the tiger or any other they cannot recognise it. As due to lack of specialisation, this happens.

- Most of the judges and Police or animal welfare officers don't know about the laws fully or the seriousness of the crime. This also makes a failure towards enforcing wildlife protection.
- These officers of the wildlife can be seen waiting to handle, identify and rehabilitate the animals that are seized by the department. It is because of lack of knowledge or experience with them.

What can we do to protect the wildlife from the forest dwellers or the poachers from poaching the animals for their illegal trade which is having high demand in the international or Indian markets. The things that can be done in my view is that :

- The definitions and the punishments in the wildlife Act,1972 should be made more broad-based, and the converging with the international situation the wildlife trade should be watched with high enforcement.
- In Gujarat, the nomadic tribes *Maldharis*, who helped to conserve the Gir Lions in the country. The Naga Tribes in Nagaland helped retain the *Amur Falon*. This is the reason why still Nagaland is known as the Amur falcon capital of the world. The *Pastoral Community* conserved the great Indian Bustard in Rajasthan. These type of conservation mentality should be there with the people so that we can preserve our natural resources, wild animals, plants, flowers, its habitat etc. such participation should be replicated around India and all over the world.

SUGGESTIONS

- 1. The hunting inside the protected areas should be regulated to a licensed person, and it should not be allowed during the breeding seasons.
- 2. In the name of zoo's, there is trade going on with the endangered species around the country, so proper implementation of laws and a more reliable mechanism for zoos are very much required.
- **3.** There should be educations for the peoples all over the country, especially the peoples near the protected areas and children's are to be educated about the wildlife and the act this can help to curb this heinous crime.
- 4. If at all, there is strong legislation, local judiciary and enforcing officers should protect the endangered species and enforce the law to give severe punishments to the poachers irrespective of their status.

- **5.** The bail for the poachers is received within days. The decision of the courts takes too much time, and this makes the offenders often let off. What to do is, to arrest those offenders, and make the conviction speedily.
- 6. There should be special wildlife courts, Crime organisation, volunteer groups to look after the wildlife trade or illegal activities that are happening inside the forest.
- 7. Due to unaware of preservations in crime, forensic examination, proper knowledge of the animals or habitats, identify the fakes, the forest officers should be given training.
- **8.** Attractive money to the people who helps the officers to find out the poachers can make the formulated solution for the illegal activities.
- **9.** Increase of tourists makes the protected areas damage the ecosystem. So restricted tourism activities should be allowed.
- **10.** Night travelling and construction of roads through the protected areas should be banned as it can create massive damage to the animals inside the protected areas.
- **11.** The Governments whether it's Central or State, it's the responsibility to take care of the wildlife. They should take a front step in the protection of wild animals.
- **12.** More people like researchers to do research activities can help wildlife in various aspects and needs to be encouraged.
- **13.** The death rates of animals in the protected areas should be checked, and appropriate measures should be taken.
- **14.** Local people from the surrounding villages near the protected areas should be called and involve them in the conservation programme.
- **15.** The protective areas should be increased for the betterment of wild animals and their habitat. Also, commercialisation like tourist activist in the National parks or Wildlife Sanctuaries can generate employment for local people who will also bring revenue for the protection of wildlife in the country.

BIBLIOGRAPHY

| SL. NO. | BOOKS AND ARTICLES |
|---------|---|
| 1. | T. R. Baalu, The Wildlife Protection Act, 1972, Ministry of Environment and Forests, Govt, of India, 2003. |
| 2. | Gaur, K. D., The Indian Penal Code, (3 [^] ed.), Delhi : Universal Law Publication, 1999. |
| 3. | Prabhakar, V. K., Environmental Protection and Law, New Delhi : Anmol Publications, Private Ltd., 2001 |
| 4. | Upadhyay, Sanjay, Upadhyay, Videh, Forest Laws, Wildlife Laws and the Environment Vol. 1, Lexis Nexis Butterworths, 2002. |
| 5. | Fundamentals of wildlife management, Natraj Publishers, 1992. Gopal, Rajesh, Concepts in Wildlife Management (2"^^ revised and Enlarged edition) Delhi: Daya Publishing House, 2005. Hosetti, B.B |
| 6. | Wildlife Biodiversity Conservation: Proceedings of the "National Seminar on Wildlife Biodiversity Conservation, New Delhi: Daya Books Publishers, 2008. Mallapureddi, Vikram (Ed) |
| 7. | Wildlife Crime(an Enforcement Guide) New Delhi: Wildlife Protection Society of India, Dehradun: Natraj Publishers, 2001. Menon, Vivek and Kumar, Ashok |
| 8. | Endangered Animals of India and their Conservation, New Delhi: National Book Trust, India, 1992, Nair, S.M., |
| 9. | Wildlife Management and Conservation (2nd Ed.) M.M. Ranga |
| 10. | Hunting of Wild Animals and its Legal Control in India, S.A.K. Azad,2004 |
| 11. | Environmental Challenges and Ecological Disaster, Gopal Bhargava, (1992) |
| 12. | Endangered Animals of India and their Conservation, S.M. Nair, (1992) |
| 13. | Laws that Protect Wildlife: The Wildlife (Protection) Act, 1972, Ashok Kumar, (2002) |
| 14. | People, Wildlife and Wildlife Protection Act., Economic and Political Weekly Nalin Ranjan Jena (1994) |
| 15. | Biodiversity, Wildlife and protected area Management: A people Centered approach. Journal of Indian Law Institute (1995) Nandan Nelivigi |
| 16. | Barua Mann, Human Wildlife Conflict 21st Century Conservation, (2010) University Of Oxford |
| 17. | Status of Tigers In India, Released by the Government of India, Ministry of Environment and forests. |
| 18. | The Living Elephants: Evolutionary Ecology, Behaviour, and Conservation, Raman Sukumar |

| | Lyster's International Wildlife Law, Bowman 2010 |
|-----|---|
| 19. | Lyster's international whence Law, bownian 2010 |
| 20. | Wildlife Crime- Origin and Emerging Trends, CBI Bulletin, C. Sharma, 2001 |
| 21. | Lyster's International Wildlife Law, Bowman 2010 |
| 22. | Wildlife Protection Laws- Purpose and implementation, CBI Bulletin, Rajan Dahiya,2001 |
| 23. | Status and ecological effects of the world's largest carnivores, Ripple. W.J. |
| 24. | Panthera Tigris, Goodrich, John |
| 25. | Forest Laws, Wildlife Laws and the Environment, Sanjay Upadhyay, Videh Upadhyay, (2002) |
| 26. | International Wildlife Law: CITES, Simon Lyster, (2000) |
| 27. | Aguide to the Convention on Biological Diversity, Glowka L., Burhenne-Guilmin F. & Sygne H. (1994) |
| 28. | Wildlife management, the multilateral trade regimen, morals and the welfare of animals. int. Wild I. Law Policy, Harrop S. & Bowles D. (1998). |
| 29. | The evolution of CITES, 6th Ed. Convention on International in Endangered Species of Wild Fauna and Flora (CITES), Geneva Wijnstekers W. (2001) |
| 30. | Partnership for Action against Wildlife Crime (PAW) (2000).– Working group reports. In PAW Bulletin(N.P. Williams & J. Withey, eds). |
| 31. | Conservation biology in theory and practice, Blackwell Science, Oxford, Caughley G. & Gunn A. (1996) |
| 32. | An introduction to human dimensions of invasive alien species, McNeely J.A. (2001). |
| 33. | The African buffalo: a study of resource limitation of University of Chicago Press, Chicago- Sinclair A.R.E. (1977). |
| 34. | Threatened birds of the world. Bird Life International and Lynx Editions, Stattersfield A.J. & Capper D. (2000). |
| 35. | Science of the total environment- Journal |
| 36. | National Capital Law Journal |
| 37. | CITES Obligations: Is Wildlife (protection) Act, 1972, Ravi Sharma Aryal |
| 38. | 2000 red list of threatened species. The World Conservation Union (IUCN), Gland - Hilton-Taylor C. (2000). |
| 39. | Troubled Waters: A review of the welfare implications of modern whaling activities- Brakes, P., Butterworth, A., Simmonds, M. and Lymbery, P (eds.) (2004) |
| | |

| 40 | Whaling: Defying international commitments to animal welfare? London: WSPA - |
|-----|--|
| 40. | Bass, C.L. and Brakes, P. (2008) |
| 41. | In Extinctions, University of Chicago Press, Chicago(M.H Nitecki, ed.). |
| 42. | Normal' extinctions of isolated populations, Diamond J. (1984). |
| 43. | "Is Japan's whaling humane?" Marine Policy, Nick Gales, Russell Leaper, Vassili Papastavrou. |
| 44. | Um stofnstærðir langreyðar og hrefnu við Ísland og flokkun IUCN,2004 |
| 45. | Men and Whales. The Lyons Press, Ellis, Richard (1999). |
| 46. | "Extinction nears for whales and dolphins" BBC NEWS, Kirby, Alex (2003-05-14). |
| 47. | "Balaenoptera physalus" - Cooke, J.G. (2018). |
| 48. | Southern right whale population on the rebound". Sciblogs, 2019 |
| 49. | Human – Leopard Conflict Management Guidelines. Kaati Trust, Pune, India, Athreya, V., Belsare, A. (2007). |
| 50. | "A Struggle to Save the Scaly Pangolin". The New York Times. Goode, Emilia (March 31, 2015). |
| 51. | Convention on International Trade in Endangered Species of Wild Fauna and Flora. CITES. "The CITES Appendices". |
| 52. | Mammoths, Mastodonts, and Elephants: Biology, Behavior and the Fossil Record. Cambridge University Press. Haynes, G. (1993). |
| 53. | "Status and Conservation of the Asian elephant Elephas maximus in north-eastern India". Mammal Review, Choudhury, A. U. (1999). |
| 54. | Skinned; The growing appetite for Asian elephants (PDF). London: Elephant Family Gosling, Justin (April 2018). |
| 55. | "Activists Denounce Thailand's Elephant "Crushing" Ritual". National Geographic Society. Hile, J. (2002). |
| 56. | "Jumbos surviving by the skin of their teeth". Bangkok Post, Wipatayotin, Apinya (2 April 2018). |
| 57. | The Asian Elephant: Ecology and Management (Second ed.). S ukumar, R. (1993). |
| 58. | "Assam rhino poaching 'spirals"". BBC News, Bhaumik, Subir (17 April 2007). |

| SL. NO. | WEBSITES |
|---------|---|
| 59. | http://www.interpol.int/public/EnvironmentalCrime/Wildlife |
| 60. | www.traffic.org |
| 61. | https://www.iucn.org/ssc-groups/mammals/antelope-specialist-group/species- account/critically-endangered-species |
| 62. | https://www.worldwildlife.org/magazine/issues/winter-2018/articles/the-status-of-african-elephants |
| 63. | http://awsassets.wwfindia.org/downloads/traffic_panda_8_oct.pdf |
| 64. | https://www.oie.int/ |
| 65. | www.ifaw.org |
| 66. | https://www.ncbi.nlm.nih.gov |
| 67. | https://www.traffic.org/ |
| 68. | https://www.interpol.int/en/Crimes/Environmental-crime/Wildlife-crime |
| 69. | https://www.unodc.org/unodc/en/data-and-analysis/wildlife.html |
| 70. | https://www.wti.org.in/ |
| 71. | https://www.iucn.org/resources/conservation-tools/iucn-red-list-threatened-species |
| 72. | https://www.ifaw.org/international |
| 73. | https://en.wikipedia.org/wiki/Wildlife_management |
| 74. | https://www.wwfindia.org/about_wwf/priority_species/bengal_tiger/ |
| 75. | http://www.poachingfacts.com/poaching-statistics/elephant-poaching-statistics/ |
| 76. | https://www.iucn.org/asia/countries/india |
| 77. | http://conservationblog.co.uk/ |
| 78. | http://www.cites.org/common/docs/Evol_2001.pdf. |
| 79. | https://www.cites.org/eng/disc/parties/chronolo.php |
| 80. | https://www.cites.org/eng/app/index.php |
| 81. | http://www.issg.org/database/welcome |

| 82. | |
|-----|--|
| | https://www.hsi.org/ |
| 83. | |
| | https://wwaw.deccanherald.com/national/india-lost-75-90-of-its-leopard-population- |
| | within-the-last-two-centuries-802628.html |
| 84. | |
| | https://www.sciencedirect.com/science/article/pii/S2665910720300049#bib0185 |
| 85. | |
| | http://www.wpsi-india.org/crime_maps/rhino_poaching.php |
| 86. | |
| | http://www.wpsi-india.org/projects/elephant_poaching.php |
| 87. | |
| | www.indianenivornmentalportal.org.in |
| 88. | |
| | https://www.kaziranga-national-park.com/blog/rhino-poaching-crisis-conservation- |
| | assam/ |
| 89. | |
| | www.anbum.edu/alleykd/envirolitigators/law |
| 90. | |
| | www.legalserviceindia.com/articles/env |
| 91. | |
| | http://corbettfoundation.blogspot.in/ |
| 92. | |
| | https://projecttiger.nic.in/WriteReadData/PublicationFile/Compendium(2).pdf |

| SL. NO. | LEGISLATIONS/ACTS/STATUTES |
|---------|--|
| 93. | |
| | Wildlife Protection Act, 1972 |
| 94. | |
| | The Wildlife Protection (Amendment) Act, 2002 |
| 95. | |
| | The Environmental Protection Rules, 1986 |
| 96. | |
| | The Environmental Protection Act, 1986 |
| 97. | |
| | The Constitution of India, 1949 |
| 98. | |
| | International Convention for the Protection of Birds, 1950 |
| 99. | The Madras Wild Elephant Preservation Act, 1873 |
| 100. | The Elephant Preservation Act, 1879 |

| 101. | The Wild Birds and Animals Protection Act, 1912 |
|------|--|
| 102. | The Cinematographic Act, 1952 |
| 103. | The Indian Forest Act, 1927 |
| 104. | The Prevention of Cruelty to Animals Act, 1960 |
| 105. | The Wildlife (Protection) Act, 1972 |
| 106. | The Criminal Procedure Code, 1973 |
| 107. | Convention on the Conservation of Migratory Species of Wild Animals, 1979 |
| 108. | The National Zoo Policy, 1998 |
| 109. | The Wildlife Protection (Amendment) Act, 2006 |
| 110. | The Recognition of Zoo Rules, 2009 |
| 111. | Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1973 |

| SL. NO. | NEWS PAPERS |
|---------|---------------------------|
| 112. | The Times of India |
| 113. | Hindustan Times |
| 114. | Dainik Bhaskar (e-paper) |
| 115. | The Telegraph |
| 116. | Indian Express |
| 117. | The Hindu |
| 118. | Deccan Chronicle |
| 119. | Deccan Herald |
| 120. | Malayala Manorama |
| 121. | Deshabhimani |
| 122. | Mathrubhumi |

| SL. NO. | LIBRARY |
|---------|---|
| 123. | The National University of Advanced Legal Studies |
| 124. | Cochin University of Science and Technology |
| 125. | Government Law College, Ernakulam |
| 126. | The Ernakulam Public Library |
| 127. | Palakkad District Public Library |

| SL. NO. | OFFICES & OTHER UNITS |
|---------|--|
| 128. | Wildlife Trust of India |
| 129. | Wildlife Crime Control Bureau, Kochi |
| 130. | Wildlife Crime Control Bureau, Regional Office, Chennai |
| 131. | Ministry of Forest Environment and Climate Change (MoEFCC) |
| 132. | National Board For Wildlife |
| 133. | Wayanad Prakruthi Samrakshana Samithi. |
| 134. | National Tiger Conservation Authority. |
| 135. | Wildlife Institute of India. |
| 136. | World Health Organization. |
| 137. | Food and Agriculture Organization (FAO) |