

Illicit Wildlife Trade – A Threat to Environment Conservation and Human Health: A Study of Indian Laws and WTO Regulations in the Context of Right to Life

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Abstract

Humans live in association with numerous other animals by sharing the same environment, where diversified diseases amongst humans and other animals can be inter-transmitted. Hence, human health is closely entwined with animal health and environmental health. Thus the relationship of the humans with species and environment cannot be separated (Alves and Rosa, 2007, WHO, 2005). The well-being of the humans largely depends on the conservation of animals and environment^[1] that necessitates for humans without any option. But, it is regrettable that humans are becoming responsible for extinction of 99% of animals^[2]. Though nations have prioritized enacting laws prohibiting habitat destruction, degradation and fragmentation, overexploitation, poaching, illicit trading etc., the declination of extinction is not controlled effectively. Therefore, it has become a subject of interest not only to the science researchers who strive towards progression of animal population through science, but also to the legal researchers who strive towards controlling illegal destruction of the wildlife through law, to explore solutions for this serious social concern. This doctrinal study that focused on examination of controlling laws in India and trade regulations of World Trade Organization preventing illegal trading of wildlife reveals that mere enactment of laws does not deplete the destruction of wildlife but can be achieved through stringent law implementation across the globe and global cooperation.

Key words: Animal Health, Conservation, Environmental Health, Extinction, Human Health, Illicit Trading, Wildlife, World Trade Organization.

1. Introduction

Wildlife, which plays a pivotal role in the biodiversity and environmental balance that greatly impacts human health, is included plants (flora) and animals (fauna)^[3,4]. Given to this, the State while legalizing trading of several plants and animals banned a few as their depletion poses serious threat to the ecological balance. Researchers observed that people often do trading of the prohibited wildlife for the reasons of prosperity charm or faith in luck or for unlawful gains^[5]. Moreover, because of consumption as used for food and medicine, a wide range of wildlife through both lawful and unlawful trading is subjected to large extinctions resulting destruction to ecosystem^[6]. A Living Planet Report of World Wildlife Fund (WWF) indicates serious threat to ecosystem health because of increased extinction in wildlife populations across the globe. It has recorded a declination of wildlife populations to an extent of 95% in Latin America and the Caribbean, 76% in Africa, 60% in Asia-Pacific, 39% in North America, and 35% in Europe and Central Asia^[7].

Records reveal that India with 573 Wildlife Sanctuaries located in 123,762.56 kms occupies 3.76% of the entire country's land (National Wildlife Database, Nov. 2023). Additionally, 218 Wildlife Sanctuaries in 16,829 km area are planned for inclusion in the Protected Area Network zone. Vedanthangal Bird Sanctuary that was identified in the year 1796 located in Tamil Nadu State, is considered as the oldest bird refuge. Ranthambore National Park located in Rajasthan State which was identified as wildlife sanctuary in 1955 but thereafter recognized as Project Tiger in 1973, is considered as the country's biggest tiger reserve^[8].

Thus, India with just 2.4% of the world's geological area has been measured as a rich biodiversity nation possessing 48,000 species comprising 11.4% of the entire globe's flora and 95,000 varieties comprising 7.5% of the fauna species. However, it has been estimated that India is destructing around 135 hectares of forest land every day for highways, mines and cement industries^[9]. Studies also witnessed that inspite of statutes, the forest land is being converted for the non-forestry purposes and the percentage of such diversion is increasing year to year. During the year 2022-23, it was 17,381.88 hectares which is 3.5% higher than what it was in 2021-22. Most of the diversions took place in Odisha, Madhya Pradesh, Gujarat, Uttarakhand and Uttar Pradesh^[10].

According to the 2017 report of the International Union for Conservation of Nature (IUCN), because of habitat demolition and poaching, 77 flora species and 25 fauna species are categorized into critically endangered, 172 flora and 205 fauna species are endangered, while 138 flora and 385 fauna are vulnerable^[11], and strong institutional legal framework and integral cooperation among the government and the people were suggested for effective conservation of wildlife.

1.1. Need of the Study

Wildlife is a means of livelihood for several communities globally, and provides food or income out of tourism, and significantly it has an optimistic effect on the wellbeing of humans for contribution towards education, health, civilization and holiness. They share the environment along with humans and other domesticated animals and microorganisms, though few are essential for human sustenance but few may cause harm transmitting the diseases and disrupt environment balance^[12].

Protection of wildlife is therefore considered important to global health. Shielding of wildlife and environment is imperative for universal wellbeing. Wildlife trade causes substantial threats as regards pathogens transfer. Pathogens which are harmless in the natural habitats of the wildlife become harmful on exposure to distorted contact, and create an environment conducive to the transformation of pathogens. Around 7 lakh unknown viruses resting in wild animals are potential to easy mutation, and can cause infectious diseases like *Ebola* and *HIV/AIDS* to humans. Unless trading and relocating of wild animals for breeding intensively or for use in products is controlled, it imbalances the environment posing risk to the human health. The State is therefore required to enhance working practices to lessen demand for wild animals, plants and their products. Enacting regulations to control illegal wildlife trade and to ensure *less human contact* with wildlife, is the need of the hour for protection of biodiversity and human sustenance and development (Hannah Emde, 2021)^[13].

Though the term "wildlife" is mostly used, it is often referred to as "wild animals". It provides socioeconomic benefits to the people. It is also one of the indispensable components of biodiversity. However, a renaissance of pandemic during the recent past underscored the role of the wildlife as a latent source of hazardous pathogens for livestock and humans with distressing consequences across the globe. Concurrently, wildlife populations are depleting because of pathogens, depredation and opposition from humans and domestic animals in the absence of hygiene standards for wildlife health which is an alarming factor for human and environmental health. An integrated approach towards balancing human, domesticated animals and wildlife is therefore needed now^[14].

Researchers argue that wildlife is facing serious threat not only from the climate changes but also humans' willful killing, and that protection of wildlife is possible only with the active involvement of public and private institutions as well as individuals, and that there shall be a more *participatory approach* than the government machinery alone. Every human individual should recognize that all species are created equally like humans, and humans alone do not have any right to arrogate to themselves the power to cause extinction of wildlife. India should not lose its rich wildlife treasure for reasons of industrialization and urbanization in the lines of western culture^[15].

Global network mobilizes fund and engages local unemployed or underemployed or uneducated people in the wildlife crimes by offering them financial packages. Poverty, unemployment, lack of equal job opportunities, lack of adequate means of livelihood are

some of the factors that attract the youth, mainly the adolescents between 35 and 55 years of age group, towards wildlife crimes for swift earning. The frontier players of the killings of wildlife are belonging to marginalized communities whose socioeconomic status is weak^[16]. Official reports reveal that youngsters are keenly attracted towards illegal wildlife trade. It was found that around 2/3rd of the crimes in a six months period were committed by the adolescents of the age group between 20 and 30 in Tamil Nadu State alone^[17].

1.2. Crimes against Wildlife and Environment

India is a rich bio-diverse nation with 6.5% of the world's wildlife varieties besides having nearly 7.6% of the globe's mammals and 12.6% of the entire planet's birds. The global demand for wildlife and its products leads to rising of illicit wildlife trade crimes that includes hunting of tigers, poaching of rhinos and selling of tortoises. Tigers are hunted because of demand for their skin, bones, claws and whisker. Tiger skin and bones are utilized in medication, and claws are utilized in ornaments. Tiger whisker is used as an awful toxic and powerful aphrodisiac in Malaysia and Indonesia, respectively. Apart from tigers, crimes are witnessed in India against Rhinoceros. Star tortoises are traded illegally because of demand for its use in *Feng Shui*^[18] as believed bringing wealth. The Trade Records Analysis of Flora and Fauna in Commerce (TRAFFIC) and the IUCN reported that veterinary medicines, crossbows, and high caliber weaponry are used by poachers in killing rhinos^[19].

Though there is a slight reduction in the cases registered under the Wildlife Protection Act compared to the year 2015 to 2023, the reduction is not constant as statistics indicates that 698 cases were registered in 2015; 565 in 2016; 342 in 2017 followed by 207 in 2018, 206 in 2019, 406 in 2020, 632 in 2021, 564 in 2022 and 296 in 2023^[20]. In spite of the pandemic situation and lockdown period, 522 wildlife poaching and illegal trade cases were reported during the year 2020 across the country^[21]. In August 2024, 61 incidents were reported as illegal wildlife trade in India^[22].

The National Crime Records Bureau (NCRB) reported that during the year 2022, a total of 52,920 Special and Local Law (SLL) cases were registered under the Environment Related Offences (EROs) as compared to 64,471 cases in 2021 with a decrease of 17.9% in addition to various cases under the Indian Penal Code (IPC) which has now been swapped by the Bharatiya Nyaya Sanhita (BNS). As per its reports, 672 SLL cases were registered in 2020 against the Wildlife Protection Act, followed by 615 cases in 2021 and 535 in 2022, whereas 992 cases were registered against the Environmental (Protection) Act in 2020, 252 cases in 2021 and 329 cases in 2022. 589 cases were registered in 2020 against the Water and Air (Prevention & Control of Pollution) Acts 1974 and 1981 respectively, 55 cases were registered in 2021 and 78 cases in 2023. 199 cases were registered against The National Green Tribunal Act in 2020, 16 cases were in 2021 and 37 in 2022. 2,287 cases were registered against the Forest Act 1927 & Forest Conservation Act 1980 in 2020; 2,292 cases in 2021 and 1,912 in 2022. In addition to this, 49,710 SLL cases were registered in 2020, 54,024 cases in 2021 and 42,642 in 2022 under the Cigarette and Other Tobacco Products

Act, whereas it is 7,318 in 2020, 7,217 in 2021 and 7,378 in 2022 under the Noise Pollution Act^[23].

A World Wildlife Crime Report which was released on 13th May 2024 indicated that though there are some positive signs in reduction of trafficking in relation to few iconic species such as elephants and rhinoceros, trafficking of wildlife has not been considerably declined for the last two decades. More steady enforcement to handle both supply and demand, efficient accomplishment of legislations together with anti-corruption regulations and potential monitoring are required. Evidence of seizures between 2015 and 2021 years shows that illicit trade identified in 162 countries affected nearly 4,000 plants and animal species out of which around 3,250 species are listed as prohibited by the CITES^[24].

Wild animals are killed not just for food, clothing or medicinal purposes but also for want of ornamental gains, and exhibition of status symbol. A large amount of financial gains and perquisites involved leads to illegal trafficking and trading of wildlife, both flora and fauna, around the world^[25]. Earlier studies also indicated that corruption is also one of the key factors for enhancement of this profitable and persistent worldwide black market^[26].

The database maintained by the Wildlife Projection Society of India witnesses that 300 species were illegally targeted by around 27,000 inter-state wildlife hunters, traders and smugglers against whom 33,300 criminal cases were registered for illicit hunting and trading using advanced methods^[27].

The United Nations (UN), and the Convention of Migratory Species (CMS) while highlighting serious concern about the wildlife protection, commented that young people are to be informed and actively involved in protection of their legacy by conserving flora and fauna from the threat of serious extinction, and that the passion and idealism are very important for implementation of good strategies for conservation of wildlife so that the humans and wildlife both will survive on earth. The UN underscored the importance of the role of adolescents in controlling the illicit wildlife trafficking and protection of wildlife^[28].

Smuggling and trading of wildlife exists across the world despite 2 decade of focused action at national and intercontinental level in the absence of scientific evidence. Corruption weakens implementation of laws while criminals fosters to world markets by using science and technological methods. A review of 150 papers that were published during the period from 2000 to 2020 found that an unlawful wildlife trade congregated with several other serious and structured offences like drug trafficking. The study concluded that sound knowledge about the convergence of crimes improves better enforcement of wildlife laws worldwide^[29].

In India, despite enactment of various controlling laws, illicit wildlife trade happens around India and the State is unable to manage it. Inhabitant and non-inhabitant species are wildly involved into unlawful trafficking that seriously threatens biodiversity and protection in the wild. Poachers and traffickers put price tags on every species of the wildlife including

eggs, marmosets and moths. Even live elephants are also brought for different purposes and are offered for sale illegitimately. India being the second largest exporting country next to China has a grave stake in medicinal plants preservation because of the weak laws^[30].

Recently, the High Court of Karnataka has expressed its serious concern about the enormous delay in the trial of wildlife cases. It has pointed out the ongoing trial despite sixteen years having elapsed. It criticized the protracted procedures for concluding an offence registered in 2008 against killing a deer and yet being tried in 2024. It has underscored the need for the speedy trial in the offences under the WPA by expressing serious concern over long delay in bringing criminals to justice^[31].

1.3. Human Deaths due to attacks of Wildlife

The Government records reveal that during the last five years i.e. from 2019-20 to 2023-24, around 3562 human deaths were reported across the country because of the attacks of wild animals including elephants and tigers^[32] which shows the failure of the wildlife management by the State.

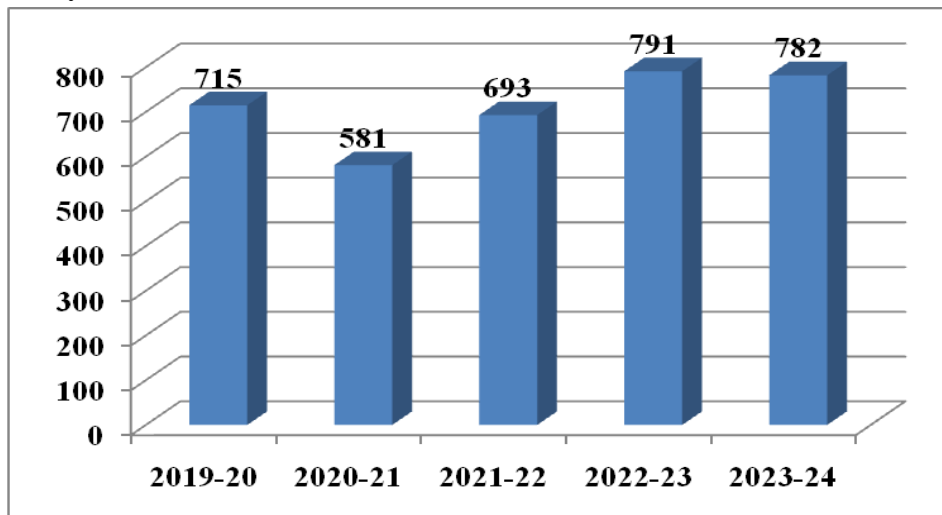


Figure 1: Number of Human Deaths recorded across India for the period from 2019-20 to 2023-24

In view of all the above considerations, this present study is necessitated to fulfill the following specific objectives.

1.4. Objectives

- (a) To examine the Indian constitutional provisions protecting the wildlife and environment to secure the *right to life*;
- (b) To study the controlling laws prevailing in Indian society for protecting the endangered species from extinction and upholding conservation of wildlife and environment;
- (c) To review the perspectives of the Indian Judiciary as regards wildlife maintenance and environment protection by upholding the *right to life* of the humans and living species;

- (d) To observe the international conventions and treaties, and regulations of the World Trade Organization to upkeep wildlife and environment; and
- (e) To find out suitable solutions to curb the illicit wildlife trade for the sustenance and development of humans.

2. Research Methodology

The researchers carried out doctrinal research which involves collection of information available in the form of published articles, review papers, working papers, websites, documents, case laws and judicial decisions.

3. Review of Literature

Relevant literature is summarized hereunder:

(i) **Shyam Divan and Armin Rosencranz (2001)** focused on examination of policies in respect of the environment protection and environmental justice and discussed articles, statutes and case laws dealing with environmental issues. He observed that because of the weak policies, the downtrodden sections of the society are deeply affected.

(ii) **Steven Broad, Teresa Mulliken, and Dilys Roe (2002)** examined the nature and scope of both lawful and unlawful trades in wildlife and their products or derivatives. They have observed that the wildlife trade has negative impacts in a large extent but the utility of flora and fauna, their products and derivatives are very important for fulfilling human need that provides a positive inducement for fortification of natural environment and ecosystem. These inducements can compete with the devastating financial forces forcing conversion of land from natural ecosystem to agricultural system, which cause depletion of biodiversity. They have suggested to analyzing trade issues and developing strategies for minimizing risk for conservation^[33].

(iii) **Aysha Akhtar (2012)** has made a persuasive study as to how the human fitness is negatively inflated upon the weak management of wild animals. He has suggested to inclusion of non-human animals in the term of the 'public' while using the 'public health' to overcome the human health related challenges successfully^[34].

(iv) **Daan P. van Uhm (2016)** examined the illegal trading of wildlife from numerous perspectives that include historical context, demand for wildlife products in terms of socio-cultural purposes, its impact on global atmosphere, State's controlling measures and judicial decisions. He has observed that the unlawful wildlife trade became a worldwide criminal activity involving drugs and weapons. Beyond the ecological collision, monetary proceeds out of the illicit trade organized criminal groups that intimidate public safety in innumerable

ways. The researcher looked at the world of poachers, smugglers and traders by performing ethnographic groundwork in China, Russia and Morocco, and identified the system as to how the wildlife trade functions right from poor poaching places to affluent industrial areas where crooked officials, legally approved corporate, wildlife ranches and advanced criminal groups benefits a share^[35].

(v) **Katie Sykes (2021)** observed the increased global concern for making laws towards animals welfare. He had made an in-depth study about the background of the concern and analyzed case laws highlighting the significance of animal welfare provisioned in the regulations of the WTO. He explored as to how the WTO handles trade disciplines protecting animal welfare through treaties for cooperation in trade, dispute settlement and, enforcement besides soliciting citizen participation^[36].

(vi) **Kuldeep Mishra (2022)** observed that nature is being abused by the humans because of their hunting of wild animals for unlawful gains through illicit trade. In addition to this, destruction of habits and extinction of wild animals are largely happening because of use of hazardous material in industries, widening of roads and buildings, construction activities, human entertainment activities etc., that adversely impact the nature. Though India has many legal enactments, it could not manage obstruction of illicit hunting and trading of wildlife. There is a need to secure public knowledge of conservation of wildlife and to strict enforcement of enacted laws in every State. The researcher has concluded that the successive governments of every state must pay attention to effectively monitor successful execution of conservation laws at every place whether it be rural or urban^[37].

(vii) **Rakotoarimanana Zy Misa Harivelo (2022)** revealed highlighted that the increase in population, urbanization and industrialization are leading to the disturbance of the atmosphere endangering the inhabitants. As humans' sustenance completely depend on the environment, it necessitates humans prioritizing preservation of environment as a social responsibility^[38].

(viii) **Annika Mozer and Stefan Prast (2023)** have observed that the Illegal Wildlife Trade (IWT) became most employable and profitable sector in the world. They have outlined the foundations of IWT and discussed its impact on economy, environment, humans' health and State solidity. They have also underscored the functional structure of the IWT, right from local use to intricate international configurations run criminal groups. They have also highlighted as to how the IWT is associated with numerous crimes such as drug trafficking, corruption and whitewashing. They have further observed a rapid increase of online trading with endangered and secluded species. They have suggested to research, knowledge share, endowment and collaboration among the nations to address this extremely dynamic and convoluted concern of IWT^[39].

(ix) **Duan Biggs (2023)** observed that wildlife trade is a pathway for pathogen overflow harming human health in addition to extensive risks to environment from diversion of land for agricultural expansion and intensification. He has identified that wildlife trade is required

new strategies and reforms from the functional bodies like CITES to ensure minimization of the spillover risks and to manage pandemic risks. The failures at national level and intercontinental level are to be judiciously assessed and effectively addressed. Regulation of the wildlife trade is to be reformed and inclusion of principles of good governance to ensure human health, animal welfare, and conservation is solicited^[40].

(x) **Shristi Choudhary (2024)** found that the biodiversity in nature is an invaluable asset to every country but regrettably, human actions driven by advancement and self-centered motives are posing risks to the wildlife, forests, and environment. He has highlighted the priority to be given for protection by menacing the depletion of wildlife as it adversely impacts the environment^[41].

(xi) **Cosimo Beverelli and Rohit Ticku (2020)** conducted a 16 years data of 130 nations and observed that Illicit wildlife trade plays a remarkable role in scattering transmittable diseases. They have shown that inconsistency in mirror trade information used to uncover substantiation of smuggling is related to increase of transferable infections in the connected mammal species. They have collected evidence that illicit trade is not only a threat to the animal wellbeing but also create risk to human fitness through spillover of zoonotic diseases. They have suggested for further research to enumerate the impact of dishonest trade in wildlife on human sustenance in view of the COVID pandemic^[42].

4. Discussion

Earlier studies on 12 years' data of seizures revealed that most of the seizures originated in Southeast Asia. The study identified rising of communal diseases. The regulating laws and execution were felt insufficient which are unable to control the international illegitimate wildlife trade at national and international levels. It has suggested that efficient controlling mechanism is required with a multipronged approach inclusive of educating and enriching local populace to value wildlife. The study also suggested allocation of adequate resources for the effective implementation besides international cooperation^[43]. The present study is summarized as below:

4.1. Conservation of Wildlife and Environment: Indian Constitutional Framework

The Indian Constitution recognized the importance of conservation of flora and fauna through fundamental rights, directive principles and fundamental duties.

Fundamental Rights: Every human has been given a right to nutritious foodstuff which is included in his/ her *right to life*^[44], and the state is directed to secure everyone an adequate means of livelihood^[45] including making available and accessible of nutritious food to raise his/ her nutrition level and living standard (in which pollution free environment is inherent), and further to enhance public health^[46].

Directive Principles: The State has been obligated as has been directed to working towards (a) promotion of intercontinental harmony and security, (b) maintaining just and admirable relationship with other nations, (c) respecting global law and treaty compulsions, (d) settling international disputes through arbitration^[47]. This obligation is inherent in honoring conservation of wildlife through obstruction of illegal trade, and protection of biodiversity and environment globally.

Fundamental Duties: Moreover, every Citizen has been imposed with certain duties to strive towards conservation and development of milieu including forests, ponds, streams and wildlife, and should be compassionate towards living creatures^[48], and to expand scientific temper, humanism and spirit of inquiry and reform^[49].

Besides the above, the Constitution has imposed certain restrictions on citizen's right to follow any occupation or to persist any vocation or to do any trade or commerce. The right is enforceable in case of such activity does not harm health of the society or to the general public. This restriction is inherent in the protection of environment^[50].

Further, the Constitution has provided the citizens with a precious right to directly knock the doors of High Court^[51] and Supreme Court^[52] through Public Interest Litigations (PILs) facilitating them to fill the gap for flourishing environmental law in India in case of failure of the legislature or the executive agencies.

4.2. Protection of Flora, Fauna and Environment: Indian Legal Framework

In the lines of honoring the Indian Constitutional provisions in relation to the wildlife fortification and environment conservation, the successive governments, right from the British regime, have enacted various legislations. The features of significant laws are summarized hereunder:

4.2a. The Indian Forest Act 1927

This law repealed the Indian Forest Act 1878 in pre-independence period to unite the law on forests, forest produce shipment and the duty (cess) leviable curtailing the proprietary rights of individuals. Though the main aim of the British Government in making this legislation was only to generate revenue out of the forest produce^[53], it has not only granted a wide range of authorities to the State to manage forests but also made the State accountable for development of forests and conservation of wildlife. It has classified forests into reserved, protected and village forests besides defined forest offences. The amended 2017 legislation recognized rights of forest-dwelling communities^[54].

Offences & Punishment:

This law states that felling or tapping a tree or stripping off the woof or foliage from trees; collecting or subjecting to any manufacturing process or removing any forest produce;

breaking up or clearing for cultivation; and dragging timber are 'offences' in relation to the protected or reserved forest areas, and whoever commits, is liable to be punished with detention up to one year or with penalty up to Rs.1,000/- or with both^[55]. The purposes of 'food' and 'trade' are inherent in such acts which are prohibited by law.

4.2b. *The Arms Act 1959*

The provisions of this law were declared as not authorized to issue or renew licences of any prohibited arm for the purpose of sport or cattle and crop protection from wild animals except under very strict conditions^[56].

4.2c. *The Prevention of Cruelty to Animals Act 1960*

The hunters use cruel methods to capture or poach wild animals and violate the animal wellbeing standards largely. Moreover, shipment and suppression methods used by these criminalists make injuries to the species (Rosen & Smith 2010). Trafficking live wild species would result wide wildlife deaths during storage and feeding (Baker 2013). The haphazard methods that are used to capture or hunt the animals would harm the non-target wildlife, deplete their populations and harm ecosystems (Dee 2014). In view of this, this law is enacted aiming restraining humans from abusing and subjecting animals to suffer pain unnecessarily. It prevents subjection of animals to cruelty, overwork, torture and abuse. It facilitated establishment of Animals Welfare Board to make rules for promotion of welfare of animals and to avoid any cruelty or abuse towards them. It also contains various provisions providing spiritual methods of massacring and butchering^[57].

Offences & Punishment

Treating animal cruelly is made punishable offence under Sec. 11 (a) to (o) of this legislation and the offender is liable to pay a fine up to Rs.50/- for the first offence. In case of second crime within 3 years of the earlier offence, the criminal is liable to be punished with a penalty up to Rs.100/- or up to 3 months' detention. In case of subsequent offence, his the vehicle will be confiscated.

4.2d. *The Wildlife (Protection) Act 1972*

This law forbids hunting of wild animals. It also prohibits collecting or trading specified plants in any form either animate or lifeless or part or offshoot. It bans trade of imported ivory, including African whale. Trade in scheduled animals / animal article which include invertebrate like insects, corals, mollusks and sea cucumber are prohibited. However, it permits export and import of wildlife or articles or products on the reasons of scientific examination or swapping of animals among Zoos. This law was amended in 2006 that lead to institution of the National Tiger Conservation Authority (NTCA) and the Wildlife Crime Control Bureau (WCCB)^[58]. The NTCA is managed under the Chairmanship of Ministry of

Environment and Forests. It has created certain guidelines dealing with the management of the Tiger Safaris. It fosters responsibility of both the Central and State Governments not only in administration of tiger reserves but also safeguarding the livelihood of the people residing around the Tiger Reserves^[59]. The WCCB develops suitable mechanism for collecting intelligence and helps Government in devising appropriate policies to prevent wildlife crimes.

Offences & Punishment

Illicit hunting, damaging the habitats, trade in wild animals or parts of wild animals, and harassing the animals are the offences under this law. The law states that hunting is included slaughtering or poisoning of any undomesticated or confined animal and each effort to do so; detaining, tracking, trapping, motivating or luring and each effort to do so; hurting or annihilating or taking body part of such animal are the offence. With respect to the untamed birds or reptiles, damaging or disturbing eggs or nests is an offence. Illicit entry into sanctuaries, damaging or destroying the wild animals, forest produce, habited and stopping or diverting of water flow, causing fire in sanctuaries, entry into sanctuary with weapons, teasing, assaulting, wounding or feeding in a zoo, cooking or serving meat of wild animal, trading of animal articles, devastating, abusing or eliminating of any wildlife, illicit grazing in national parks are also referred to as 'offences' under this law. Sec. 51 (1) of this law states that any individual, who contravenes the provisions of this legislation or whoever commits a breach of any condition is punishable with incarceration up to 36 months or with penalty up to Rs.25,000/- or with both. However, for a serious offence, the imprisonment can be extended up to 7 years. All the offences are non-billable except the offences under Section 38(J) contravening the provisions is a billable offence which is liable for sentence up to six months or penalty up to Rs.2,000/- or with both^[60], the same can be extended up to one year and Rs.5,000/- respectively in case of next offence under Sec. 38(J).

4.2e. *The Forest Conservation Act 1980*

This law was endorsed with an aim of driving towards conservation of forests by restricting the State Governments from diverting the prohibited land for use of non-forest purpose which is inclusive of breakup or clearing of any land other than the reforestation. It was put in place to prevent deforestation and enhance sustainable administration of forest wealth. It prohibits the State Governments to not to assign the forest land or any part of forest terrain to any private person or body. It provides guidelines and controlling measures regulating the use of forest land and resources to ensure their long-term sustainability^[61]. It empowers the State to provide penalties for violation of the provisions. It facilitates formation of an Expert Committee to give advice to the Central Government on conservation of forests.

Offences & Punishment

Section 3B of this law states that whoever infringes any law is liable for simple detention up to 15 days. It also makes authority responsible for the offence^[62].

4.2f. *The Environment Protection Act 1986*

This law was created in the lines of the United Nations Conference on the Human Environment (UNCHE) organized at Stockholm in June 1972 to which India was one of the participant countries. The aim of the law is to secure appropriate steps protecting and developing human environment. This law widened the definition of environment wherein it is included the relationship among the humans, living creatures, plants, bacteria and assets besides water, air and land. The ecological toxin was described as any frozen, liquid or gaseous stuff present in such concentration intended to be injurious to environment. The perilous material was included the cause harm to humans, living creatures, flora, microbes, goods or the environment.

This law facilitated the State planning and implementation of programs and creation of standards and safeguards, inspection of premises, recognizing the laboratories, for the purpose of preventing, controlling and abatement of environment effluence.

Offences & Punishment

Section 15(1) of the law states that whoever disregards the rules shall be liable up to 5 years imprisonment or with fine up to one lakh rupees or with both. If the failure continues, the individual is liable for additional punishment i.e. a penalty up to Rs.5,0000/- every day. For repeated violations beyond one year of first conviction, the offender is liable to be punished with imprisonment up to 7 years.

4.3. Upholding the Protection of Wildlife and Environment: Perspectives of the Indian Judiciary

The extent of the *Right to Life* has been widened by the Apex Court by stipulating that a clean environment is to be secured for human survival. In *TN Godavarman Thirumulpad v. Union of India*^[63] case, the Supreme Court in 1996 ordered for rigorous implementation of the Forest Conservation Act to control pollution problems and destruction of natural habitats^[64]. It has ordered constitution of Expert Committee by every State for identification of forest areas and such other allied matters. The Court in its verdict in the same case on 31st Jan 2024 underscored the need of vibrant functioning of the Central Empowered Committee (CEC) and held that the CEC shall be provided with the assistance of state-of-art infrastructural facilities and adequate human resources to function vividly, and that the courts shall have to monitor functioning of such establishments to ensure not only the protection of environment but also its enrichment.

The *Supreme Court in Animal Welfare Board of India v. A Nagaraja & Others* had affirmed that every species has a right to live. Article 21 is included the animal life which is necessary for life of humans, and that 'life' means something beyond survival but living with dignity^[65].

The highest court in *State of Gujarat v. Mirzapur Moti Kureshi Kassab Jamat & Others* interpreted that Article 51A was enacted with intent of conjunction with the Articles 48 and 48A to ensure that the spirit enshrined in all the provisions are honored.

The apex court applied the doctrine of public trust to environmental issues and held that this doctrine is relevant to air, water and forests which have utmost importance for the humans' living and hence they are wholly justified to be considered as public properties^[66]. The important cases that were decided by the Supreme Court in relation to the environment conservation are *Dehradun Quarrying case*^[67] case (shutting down of mineral quarries in Dehradun region), *MC Mehta v. Union of India*^[68] case (setting up of safeguards at chlorine plants in Delhi), and *Vellore Citizens Welfare Forum v. Union of India*^[69] (affirming that “the Precautionary Principle” and “the Polluter Pays Principle” are required for Sustainable Development). The judiciary is perspective that once the natural resources are lost, they cannot be rehabilitated^[70], and hence they are to be enriched.

However, few researchers argue that it is very important strengthening of prosecution as well as sensitizing the judiciary about the nuances and intricacies of the environmental protection laws, more importantly, to the plight of wildlife and that the heavy costs of wildlife trade can go a long way in having a more aware judge presiding over the case. Several trial court judgments took an empathetic sight towards wildlife indicating that sensitization programs for the presiding officers play a momentous responsibility in the tussle against the offences towards flora and fauna^[71]. A review of 147 court orders belong to 2008 to 2014 pertaining to cases of the period 1995 to 2014 against the offences tried under WPA Act, convictions were given in only 17 cases i.e. a success rate of 11.45% only^[72]. Nearly 90% of the cases were resulted in acquittal. Further a scrutiny of orders in various wildlife cases in Bastar Division during the period 1995 to 2007, the success rate was zero. A scrutiny of 35 cases out of which 16 cases were in relation to seizure of partner skin tried in Jagalpur District, the sentence was zero in all the 35 cases. Serious lapses were observed in the enquiry into these offences. This indicates the lacuna either in collection of evidence or in prosecution or the laws themselves. It also witnesses the enormous time being taken by the courts in justice delivery. Therefore there is a need to strengthen the prosecution and the law^[73].

4.4. International Convention(s)

The Convention on International Trade in Endangered species of Wild Fauna and Flora (CITES) 1973^[74]: This is a treaty amongst the participant-nations that entered into force on July 01, 1975 as a legally binding obligation on the parties. It aims to ensure that the worldwide trade in wild flora and fauna does not intimidate the endurance of the species. It

provides minimum standards and regulations to be followed in international trade. The provisions shall be applied and managed by the police and customs authorities. CITES has 184 contracting parties and regulates all major markets of the world.

The Conference of the Parties (CoP) which meets once in every 3 years to review the progress of implementation of the Convention provisions having decision-making powers, is the apex body of the Convention. It will also consider the proposals for amendment of the Convention appendices in which the species of animals and plants are covered. In between these 3 years, the Standing Committee of the Convention will extend guidance to the CITES Secretariat and oversees the compliance.

The CITES is connected with the WTO in view of the General Agreement on Tariffs and Trade (GATT) in the matter of exemptions listed in Article XX of GATT on actions required for fortification of health of humans, plants and animals and on measures relevant to conservation of exhaustible resources.

While legal trade yields immense benefits, unlawful trade weakens conservation efforts. The CITES recognizes serious nature of illicit wildlife trades as crimes through its various resolutions and decisions. The Sustainable Development Goals distinctively address illicit wildlife trade under Goal 15. The resolution passed in 2015 on handling the unlawful wildlife tracking has been adopted by the United Nations General Assembly (UNGA).

In addition, the World Travel & Tourism Council (WTTC) also stipulated certain guidelines signifying how the worldwide travel and tourism sector should work closely to handle the illicit wildlife trade with zero tolerance as majority of the travelers without having knowledge may involve in the illegal trading and trafficking of wild species that are endangered and are conserved by local or global law.

4.5. Regulations of the World Trade Organization menacing the Illicit Wildlife Trade

WTO notified 340 measures for the protection of wildlife species. It includes habitat incentive programs, import and export bans, allocation of shares and licenses, quarantine and risk assessment requirement. There are legitimate reasons under the regulations of the WTO justifying its steps to control imports and exports on the concern of animal wellbeing as well as for protection of public ethics^[75]. 160 nations who are the members of the CITES are also the members of the WTO. CITES is one of the intercontinental conventions most frequently mentioned as indication of the grounds for the import and export quantitative restrictions maintained. But while by defining CITES-related trade measures are trade restrictive, to date there has been no WTO dispute directly challenging a CITES trade measure^[76,77].

5. Conclusion & Suggestions

The diversity of existence on earth is indispensable for a vigorous functioning of environment and it is the biodiversity that enhances environment health. It is the need of the

hour that humankind recognizes the reality that economy is entrenched in environment and is not outside to it^[78].

The study concludes that India is a rich bio-diverse country having a large number of invaluable flora and fauna that have demand across the world. Because of the significant relationship among the unemployment and illicit wildlife trade, the local uneducated or undereducated, unemployed and underemployed youth are being attracted and involved in illicit wildlife trade causing a serious threat to wildlife and environment conservation, though several controlling laws are enacted in the absence of insincere implementation and prosecution. If this serious social concern is not handled effectively, it will cause severe damage to the health, sustenance and development of the humans. Towards this direction, the following suggestions are given:

(1) People more particularly, the youth adolescents and local habitats are to be informed of the importance of wildlife conservation through outreach programs. The students are to be well sensitized on lesser known species and its illegal trade. Involvement of NGOs would serve this purpose better.

(2) There is a dire need for the State's authorities to regulate the illicit wildlife trade that is rapidly increasing through e-commerce platform using internet and social media platforms. Modernization, strengthening and harmonization of criminal justice system at all levels right from the source to market will help controlling the illegal poaching, trafficking and trading of wildlife. Interventions are to be prioritized more strategically to reduce wildlife trafficking^[79].

(3) Simultaneously, Adequate employable opportunities with adequate means of livelihood is required to be made available and accessible to all the people even to the tribal communities reside in forest areas surrounded by the protecting zones. Sincere focus on generation of employment opportunities with sufficient social protection will menace the illicit wildlife trade^[80]. Regulations alone will not put full stop to illicit trading. But making the people understanding of its importance, and managing or reducing its demand is necessary for its controlling. Menacing the impacted factors such as corruption, unemployment, unawareness is to be addressed seriously. More focus towards improving the socioeconomic status of the communities in the vicinities where the wildlife trade is targeted, would better control the illicit wildlife trade^[81].

(4) Public Private Partnership (PPP) which is potential is to be encouraged to provide vital services beyond wildlife protection such as more employment opportunities, habitats for local communities, educational, health and veterinary services^[82] to control the illicit wildlife trade.

(5) Wildlife is a valuable resource for upholding ecological health worldwide^[83]. Hence its protection is to be mandated globally. Mere enforcement in a single nation would not culminate illicit wildlife trade, and would not prevent depletion of wildlife and environment conservation. The CITES being an international treaty among various nations should

therefore strictly plan strategies and impose obligations so that every member-nation will have national level legislations, honor global treaties, and effectively enforce mechanism for controlling the illicit wildlife trade. The current practice of once in 3 years of review by the CITES shall be changed to annual review.

(6) Enhanced financial activities impact biodiversity and environment adversely. The increased demand for wildlife and its products improves illegal trade and would cause extinction of the endangered species. Moreover unsustainable practices towards agriculture and forestry, use of pesticides and plastics, and industrialization are also few of the significant factors that contribute to the loss of wildlife and environment conservation^[84]. The nations are required to strive taking appropriate steps towards menacing the use of pesticides and plastics.

(7) CITES in association with the WTO should identify the complexity that negatively impacts legal wildlife trade so that the detection of illegal trade is easy. Both these international bodies can further strengthen their association and plan strategies to fulfill two objectives: one is liberalization of legal wildlife trade for socioeconomic benefits, and strengthening of illegal wildlife controlling laws for conservation of wildlife and environment^[85]. Criminal justice system is to be reorganized, fortified and harmonized from source to end markets. The strength of the CITES and the WTO shall have to be improved by making the non-members to join the alliances.

(8) Protection of Environment is integrated in Indian culture and traditions. It has been considered as *Man's Paradise* in *Atharvanaveda*, and it is one of the prime duties of every citizen to conserve this beautiful living place on earth. The framework for management and conservation of the nature is also embodied in the Indian Constitution, without which human living cannot be enjoyed. Since the western culture is becoming dominating in India, there is a need for the State to efficiently monitor integration of the instruction on Indian Culture and Heritage in the Education Policy. The acquaintance of knowledge of provisions of the constitution and legislations and the values of culture and traditions in relation to the conservation of the environment is the need of hour for every citizen. Public participation towards this goal is to be secured through more sensitization programs and education^[86], and the State is to constantly work towards this direction by allocation of adequate resources and sincere execution.

(9) The State is to secure effective management of wildlife to prevent human deaths as well as the illicit wildlife trade. In addition, it should also secure speedy trial of the offences registered against wildlife and environment protection laws. The investing agencies and the prosecution bodies shall be sincere in booking of cases and to assist the Judicial system to ensure that the real culprits are not declared as innocents, and similarly that the true innocents are not punished.

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