

# WHETHER THE EXISTING LAWS AND POLICIES ARE SUFFICIENT FOR THE PROTECTION OF LION TAILED MONKEYS? – AN ANALYSIS

by

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## ABSTRACT

*The following research paper is based on the study done on the basis of the existing laws and policies regarding the protection of the Lion Tailed Macaques (LTM). The researcher has tried to find out whether the existing laws and policies are enough for the protection of the LTM. For this purpose the attention had been given mainly to the Indian scenario and the researcher arrives at a conclusion that even though there are laws and municipal regulations accompanied by NGO/ Private party initiatives to protect the LTM, the same are not found to be completely feasible when it comes to their ultimate protection. The focus should shift from how to protect the species to why to protect them because they are already at the brim of extinction and are considered to be an inevitable part of the Eco system. The following research paper shall follow an order where the researcher had penned about the basic characteristics of the LTM, threats faced by them, conservation problems, the legal point on the subject matter and an analysis following a conclusion. The researcher looks forward and hope to have a system where the LTM's shall be totally preserved and their numbers shall eventually increase steadily in the coming fifteen years.*

**Keywords:** Lion Tailed Macaques, conservation, legal protection, Endangered species, ecological Imbalance.

## **INTRODUCTION**

This research work aims to find out whether the existing number of legislations in India are sufficient to protect the Lion Tailed Macaques (LTM). The researcher had recorded the details regarding the LTM and had done a study regarding the threats and conservation problems faced by the LTM. However the discussion done on this regard brings the awareness that due to many unplanned activities and private party intervention and due to major habitat degradation these species are found to be on the list of the endangered species and under the red list of the IUCN. They are having a significant reduction in their overall population and this would in some times leads to complete loss of the species. Being a human being and being someone who truly connects with the nature, the researcher personally believes that we should give enough importance to these beings around us and strengthen both municipal rules and policies as well as legislations on the protection of the LTM's in order to increase their population and thus maintain ecological balance.

## **LION TAILED MACAQUES AND THEIR GENERAL CHARACTERISTICS**

The lion tailed monkeys or the *Singalika (simha valan)* or the *Lion tailed macaques* are those primates seen in India. They are often in the western Ghats of Kerala and also seen along the other south western hills and mountains of India and lives mostly in tropical Rainforests and elevated mountain side. The lion-tailed macaque, also known as the *wanderoo*, is primarily an arboreal and quadrupedal<sup>1</sup> species that flourishes in the top canopy of tropical evergreen rainforests and monsoon forests at elevations ranging from 330 to 6,000 feet (100–1,850 metres). These creatures are highly communicative animals who decide their own home boundaries through calling. Different groups dominant males let out loud, human-like 'whoops,' and then one of the troops quits the territory. They have a social system that is unimale-multifemale. Their communication system involves up to 17 vocalisations in total. Body language is also used by them in addition to sounds. They greet each other by smacking their lips, but yawning with a grimace denotes dominance or Threat.<sup>2</sup> These species as mentioned earlier are

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<sup>1</sup> Means walking on four legs.

<sup>2</sup> Lion Tailed Macaques, Animalia, (8 January 2022, 8:30PM), <https://animalia.bio/lion-tailed-macaque>.

endemic to the Western Ghats<sup>3</sup> of Kerala and also found in the states of Tamil Nadu and Karnataka. The Indira Gandhi Wildlife Sanctuary in Tamil Nadu's Anamalai hills has roughly 32 groups of lion-tailed macaques, all of which are constrained to highly fragmented woods and hence the population's future is uncertain.<sup>4</sup> In Kerala they are found commonly in the Silent Valley National Park in Palakkad which catches the attention of people across the globe. They have an estimated population of around 3,500 people, divided into 49 sub-populations. The Lion Tailed Monkey (herein after shall be referred to as LTM) are considered to be endangered species according to the IUCN reports. The reports say that illegal hunting and accidents resulting from electrocution or being run over by vehicles resulted in a population fall of the species in some areas, prompting the IUCN<sup>5</sup> to classify them as the "threatened species."<sup>6</sup>

These category of monkeys are usually smaller compared with other monkeys and they got a height of around 40-60 cm tall. They weigh around 15 kg whereas their females just weigh only half of their males. One significant feature they have is their ability to balance while they are in the canopy with their tail which is 9-15 inches long. They have opposable hands and feet making them able to perform many activities like grooming, walking, climbing, feeding etc.<sup>7</sup> LTM do have special majestic look similar to that of Lion. With silvery white hairs around their face and hairless faces with hazel nut shaped eyes with black eyelids, which do contrast with black silky fur on their body make them unique in their appearance. Their tail ends at pointed tufts similar to that of a lion and they are called as "*Simha-Valan*" at the southern end of India. However this special feature is unique in males than in females. They can live for 20 years in the natural wild habitat and may be more in captivity. Like

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<sup>3</sup> The Palghat gap, which is 25 miles (40 kilometres) wide, is the only break in a large north-south running mountain range in India that spans 990 miles (1,600 kilometres). On the southwestern coast of the Indian peninsula, it runs through the states of Karnataka, Tamil Nadu, and Kerala. This area, also known as Sahyadri, or Benevolent Mountains, is one of the world's richest in terms of biological richness.

<sup>4</sup> Supra n @2

<sup>5</sup> International Union for conservation of Nature.

<sup>6</sup> Shubashree Desikan, Different strategies needed to conserve lion-tailed, bonnet macaques, says study, (27 December, 2021, 12:36 PM), <https://www.thehindu.com/sci-tech/science/different-strategies-needed-to-conserve-lion-tailed-bonnet-macaques-says-study/article30623670.ece>

<sup>7</sup> Sylvia Abrams, The lion tailed macaque, New England Primate Conservancy, (23 November, 2021, 11:37 am), <https://www.neprimateconservancy.org/lion-tailed-macaque.html>.

all other macaques the LTM have cheeky pouches which helps them to store food similar to storing them inside their stomach. Usually they carry fruits and seeds inside their mouth and consume them along the way from where they gathered it and they drop the same far away from the initially collected source while they are climbing the trees. Through this phenomena many plants are reborn again. Thus they are considered to be saviours of the nature and helps to maintain, propagate and balance the ecology and environment. Their Mating strategy is quite unique. Based on the information collected, it has been found that lion-tailed macaques are polygamous, one male has the unique right to mate with numerous females. LTM reproduce all round the year. However, during the rainy season, when there is plenty of food, the birth rate tends to rise. The gestation phase lasts roughly 6 months, and the result is a single helpless newborn who is utterly reliant on to its mother. The newborn infant is held on the abdomen of its mother. As the infant grows and learns new skills, it is cared for by its mother for a long time. The nursing period lasts around one year. Males scatter to join nomadic all-male units until they build and maintain their own harems as soon as the juvenile macaques reach maturity. Females, on the other hand, frequently stay with their natal group. Females reach sexual maturity at the age of five, while males reach sexual maturity at the age of eight.

Lion-tailed macaques are picky eaters who dwell in mature alpine rainforests with few and widely dispersed food sources. Fruit, especially from fig trees, is their main source of nutrition. They supplement their diet with a variety of goodies including seeds, sap, cones, shoots, pith, flowers, insects, snails, bird's eggs, tree frogs, and small reptiles and mammals like lizards, bats, and Indian giant squirrel infants when fruits are scarce. There are two types of species-those that live in the forest and those that live among humans. Studies shows that we need to have different strategy in order to conserve both of them. Previous research on the Annamalai Tiger Reserve area, which is an important distributional range for the lion-tailed macaque, demonstrates that forest fragmentation has resulted in a varying density, demography, and birth rate of species as compared to those in contiguous forests.<sup>8</sup> Because of habitat fragmentation, the lion-tailed macaque spends more time on the ground and in low trees, which increases the risk of accidents. Surprisingly, the monkeys were spotted begging for food from people and even stealing from vehicles. Nature Conservation Foundation, an NGO, and the Tamil Nadu State Forest

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<sup>8</sup> Ibid at n:4

Department collaborated on a project that involved building a bridge made of wooden ladders to connect the canopies across a road. After a while, the monkeys learned to use it and stopped crossing the road. This was done during 2011 and 2012, through a funding from the Critical Ecosystem Partnership Fund (CEPF). Four were constructed at Puthuthottam and one in Varattuparai, in areas where lion-tailed macaques and other arboreal animals such as the Nilgiri langur and Indian giant squirrel were frequently seen crossing the road and where tree connection was poor or non-existent. Since then, the organisation has witnessed lion-tailed macaques and even giant squirrels crossing across to the other side of the road using such bridges.<sup>9</sup> Experiments like these to a certain extent helped to save monkeys from death by hit and run. The cutting down of tamarind trees and banyan trees along the sides of the highways for road widening had contributed to the habitat loss of LTM. However taking significant control on the root cause of destruction will help save these beings from extinction. Lion-tailed macaques have been killed for their flesh and fur in the past, resulting in the species being designated as Endangered, with only 2,500 individuals remaining in the wild. There are currently around 400 in zoos, the majority of which were born in human care. The greatest threat to these mammals in the wild, like with many others, is habitat degradation mainly.<sup>10</sup>

### **The MAJOR THREAT FACED BY THE LION TAILED MACAQUES**

- **Habitat and Fragmentation problems**- In the Western Ghats, much of the rain forest has been gone, and the surviving habitat is primarily made up of small patches with one to four groups a piece. At least 40 isolated communities were found by the Working Group on Census and Distribution, with 26 having less than two groups, nine having three to ten groups, and only five having more than ten groups. Almost all of the small patches of rain forest have already been damaged due to logging, cardamom planting, and fuel and timber wood harvesting to fulfil the needs of the human settlements that frequently surround

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<sup>9</sup>Rishika Pardikar, Saving the Lion Tailed Macaque one step at a Time, ( 25,January,2022, 01:41PM), <https://sustain.round.glass/conservation/lion-tailed-macaques-canopy-bridges/>

<sup>10</sup> More protection for Lion-Tailed Macaques in Western Ghats, The New Indian Express, 26th April 2019 07:02 AM, (January 9,2022,9:28pm),<https://www.newindianexpress.com/states/karnataka/2019/apr/26/more-protection-for-lion-tailed-macaques-in-western-ghats-1969183.html>

the patches. Habitat degradation has the overall effect of reducing plant species diversity and food availability, as well as preventing forest regeneration. The Lion-tailed Macaque's long-term existence in the limited patches is consequently jeopardised by habitat deterioration which is a major threat to their existence.

- **Hunting**- Poaching is a severe issue in several areas. For long years, it had been common in Kodagu woodlands. As a result, the population of this ideal habitat has significantly decreased. Hunting is also a concern in the Cardamom Hills and the North Nilambur. Hunting had been recorded in the Silent Valley area also. The Lion-tailed Macaque is unable to recover even from modest levels of hunting due to its low birth rate and high age at first birth.
- **Private Population**- Many of the small sections, particularly in the Annamalai, Cardamom, and Ashambu Hills, are privately owned. This provides relatively little protection for the Lion-tailed Macaque and its habitat from logging, poaching, fuel wood gathering, and other threats. In recent years, logging in such privately held patches has become a severe danger to local residents too.
- **Logging**- Despite the fact that logging in wet evergreen forests has been prohibited for over a decade, logging has been opened up in significant parts of the current habitat of the LTM. Many of the forest portions under private ownership are cut to fulfil the needs of cardamom growers and labourers for shade and fuel wood. This has already had an impact on the Lion-tailed Macaque population in some areas in recent years (e.g., Puthuthottam and Korangumudi estates), and it remains a major immediate threat to many small populations in the Annamalai Hills, Manjeri Kovilakam forests in Nilambur, and Sirivilliputhur and Periyar areas.

Along with these, disasters like fire, drought, developmental activities, diseases, cyclones/landslides, use of pesticides, collection of minor forest products, illegal activities, excess exposure to the public etc..are also threats faced by the LTM. However from among the many above mentioned conservation problems of the LTM the significant and the main problem of LTM is nothing but fragmentation. The main causes of this loss and fragmentation are illegal felling of rain forest trees both within and

outside of protected areas, illegal destruction of rain forest sections for the cultivation of narcotic plants, raising plantations, and felling in private plantations. Typically, the trees targeted for chopping are those that are preferred by LTM as their source of food. Through this not only the LTM are being destructed but the rebirth of the same trees through the consumption by the LTM are also destructed. The rate of loss due to a number of factors is now believed to be relatively low (0.005% of existing LTM habitats on an annual basis), although fragmentation has a substantial impact. Poaching and fire are also threats for the survival of these species. Even though it only acts as a minor threat compared with fragmentation. Fire can be either accidental or intentional. When wild fire are formed without any human intervention it spreads and destroys the habitat as well as the main food source of the LTM. Another threat is nothing but captivating the LTM. Even it is for a short period of time their breeding habits are seen to be disturbed and leads to the low birth rate. All these are factors to the extinction of LTM. Private land ownership provides its own set of challenges; because it is uncontrolled by the forest service, owners can modify land use patterns and clear undergrowth for mono crop plantations, resulting in the loss of resources critical to the LTM's sustainability.<sup>11</sup>

## **LEGAL FRAMEWORK ON THE PROTECTION OF THE LION TAILED MACAQUES**

The IUCN (IUCN, 2015) had Red Listed and classified LTM as endangered, and the Wildlife Protection Act classifies it as a Schedule 1<sup>12</sup> species and also the Appendix I of the Convention on International Trade in Endangered Species lists lion-tailed macaques (CITES) as endangered species. Rain forests have vanished from Maharashtra and Goa, according to researchers, due to

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<sup>11</sup> Ashni Kumar Dhawale, 10 things to know about Lion Tailed Macaques, Monday, 08 March, 2021, ( 13, January, 2022, 10:50 am), <https://www.natureinfofocus.in/animals/10-things-you-need-to-know-about-lion-tailed-macaques>

<sup>12</sup> Schedule 1 is classified as those species which requires rigorous protection. The species under this schedule is protected from illegal poaching, hunting and trading. A person is liable to be severely punished if he violates the law under this schedule. The Species included in this Schedule are prohibited from being hunted across India, unless they pose a threat to human life or are infected with a disease that is incurable. Lion tailed macaque, bengal Tiger, snow leopard, fishing cat, musk deer etc..are some animals under the Schedule 1.



deterioration and fragmentation. Their population is presently restricted to Karnataka, Kerala, and Tamil Nadu, with the bulk of them living in isolated enclaves throughout the Western Ghats.<sup>13</sup> There may be fewer than 2,500 mature individuals left in the globe, and the species's population is anticipated to drop by more than 20% in the next 25 years.<sup>14</sup> A number of protected areas and national parks have been designated as key conservation sites in India. These include the districts of Kalakad- Mundanthurai in Tamil Nadu, Silent Valley in (palakkad) Kerala<sup>15</sup>, and Brahmagiri- Makut in Karnataka. However, because many of the forest sections are on private land, the forest service has no jurisdiction over them. The lion-tailed macaque population has continued to dwindle in recent years, and the species appears to have vanished in some sections of the Western Ghats. Lion-tailed macaques living in isolated forest patches have decreased mitochondrial DNA, which is passed down from mother to offspring, according to researchers. Furthermore, some forest patches in areas like the Valparai plateau in the Anamalai Hills have been isolated since the 1920s, and lion-tailed macaques in the area make up about 20% of the entire wild population, with half of them living in those 20 forest patches, and thereby necessitating the creation of forest corridors to allow for the free ranging of lion-tailed macaques which promote genetic diversity and ensure these animals can reproduce and thrive.

Now let us know the significant legal provisions in India which are exclusively based on the animal protection. As it is drafted in the Constitution of the country, Art 51 (G) in part IV-A( Fundamental duties) says that “ it shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wild life and to have compassion for living creatures.” Under the light of the Indian constitution the wildlife protection act of 1972 and the cruelty against animals act of 1960 are enactments which safeguard and protect the animals of the country from illegal hunting, trading, poaching and other activities. The schedule 1 of this enactment lists the endangered species of animals (which

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<sup>13</sup> More protection for Lion-Tailed Macaques in Western Ghats, The New Indian Express, 26th April 2019 07:02 AM, (January 9,2022,9:28pm), <https://www.newindianexpress.com/states/karnataka/2019/apr/26/more-protection-for-lion-tailed-macaques-in-western-ghats-1969183.html>

<sup>14</sup> <https://www.neprimateconservancy.org/lion-tailed-macaque.html>

<sup>15</sup> In the case of Silent Valley National Park, LTM are considered to be the key species. They are the gifted population of the valley so their protection is a major task for the park authorities. So far the number of LTM's are noted to be healthy in number compared with many national parks.



includes the lion tailed Monkeys) which are at the brim of extinction. Section 2 (16)<sup>16</sup> in the wild life protection act of 1972 says about “Hunting”. The Wildlife (Protection) Act of 1972 was enacted by the Indian government with the goal of efficiently protecting the country's wild life and controlling poaching, smuggling, and illegal trading in wildlife and its derivatives. The Act was revised in January 2003, making the penalties and punishments for violations of the Act more severe. It has been advocated that the law be strengthened by implementing more stringent provisions. The goal is to safeguard listed endangered flora and animals, as well as biologically significant protected areas. The legislation stated above can be a powerful weapon in the fight against animal exploitation. All of us can choose to use these provisions to advocate for exploited animals in our community.<sup>17</sup> The Prevention of Cruelty to Animals Act was adopted in 1960 to prohibit the imposition of undue pain or suffering on animals, as well as to update legislation relating to animal cruelty prevention. Following the provisions of this Act, the Animal Board of India was established to promote animal welfare. Based on the enactments the Ministry of environment, forest and climate change has formulated a third ‘National Wildlife Action Plan’ for a period of 2017 to 2031 to save wild animals in the country.<sup>18</sup> The Ministry has developed a plan that takes a landscape approach to animal protection, regardless of where it occurs. It also places a strong emphasis on the recovery of endangered wildlife species while also protecting their natural habitats, which include terrestrial, in land aquatic, coastal, and marine ecosystems.

The measures taken by the Government to control illegal killing and poaching of wild animals are:

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<sup>16</sup> “hunting”, with its grammatical variations and cognate expressions, includes,— [(a) killing or poisoning of any wild animal or captive animal and every attempt to do so; (b) capturing, coursing, snaring, trapping, driving or baiting any wild or captive animal and every attempt to do so;] (c) injuring or destroying or taking any part of the body of any such animal or, in the case of wild birds or reptiles, damaging the eggs of such birds or reptiles, or disturbing the eggs or nests of such birds or reptiles;

<sup>17</sup> (24 January 2022, 11:15 am), <https://www.strawindia.org/laws-that-protect-animals-in-india.aspx>

<sup>18</sup> Press information Bureau, Government of India, Ministry of environment forest and climate change, 25 Nov 2019 5:48PM by PIB Delhi, (16, January, 2022, 9:30am), <https://pib.gov.in/PressReleseDetail.aspx?PRID=1786057>

- i. Violations of the Wild Life (Protection) Act of 1972 are punishable under the law. Any equipment, vehicle, or weapon used to conduct a wildlife offence is likewise subject to seizure under the Act .
- ii. Law enforcement officials in the States keep a close eye on poaching of wild animals.
- iii. The Wildlife Crime Control Bureau was established to collect information on poaching and illegal trading in wild animals and animal products, as well as to create inter-state and trans-boundary coordination in the enforcement of wildlife laws.
- iv. State/Union Territory governments have been asked to strengthen and improve the field formations and increase patrols in and around Protected Areas.
- v. Protected Areas, such as National Parks, Sanctuaries, Conservation Reserves, and Community Reserves, have been established around the country to conserve wild creatures and their habitats under the provisions of the Wild Life (Protection) Act, 1972.
- vi. The Centrally Sponsored Schemes of 'Integrated Development of Wildlife Habitats,' 'Project Tiger,' and 'Project Elephant' provide financial help to state/union territory governments for greater wildlife conservation and habitat enhancement.

### **BEING PROACTIVE**

With fewer than 4000 individuals scattered in 49 groups<sup>19</sup> the LTM are those category of primates which should be protected at the earliest in the most effective way. The significant contributing factor to their extinction is most likely the centuries-long destruction of rainforest habitats. Extensive logging in the early 1800s to introduce tea and coffee monocultures resulted in the fragmentation of natural rainforests, exacerbating the threat to the habitat specialist LTM.<sup>20</sup> Aside from habitat degradation, population fragmentation is a serious issue: it forms isolated populations that form islands within producing landscapes such as tea, coffee, and rubber plantations, limiting resources and preventing the LTM from dispersing, which is an

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<sup>19</sup> Shubhasree Desikan, Different Strategies Needed to conserve Lion Tailed, Bonnet Macaques, Says Studies, The Hindu, January 2020, (January 16, 2022, 9:57am), <https://www.thehindu.com/sci-tech/science/different-strategies-needed-to-serve-lion-tailed-bonnet-macaques-says-study/article30623670.ece>

<sup>20</sup> Ashni Kumar Dhawale, 10 things to know about Lion Tailed Macaques, Monday, 08 March, 2021, ( 13, January, 2022, 10:50 am), <https://www.natureinfocus.in/animals/10-things-you-need-to-know-about-lion-tailed-macaques>

inherent natural history attribute. However being proactive in the area of conservation can save this species from complete extinction. A few number of such strategies are recorded below after a study done on this arena.

The termination of a hydro-electric project on the Kunthipuzha river in the Silent Valley, as well as its eventual delineation as a protected area, were among the measures taken to save the Lion-tailed Macaque. Since then, a long line of scientists, including those from the University of Mysore and the Salim Ali Centre for Ornithology and Natural History (SACON), as well as non-governmental organisations (NGOs) like the Nature Conservation Foundation (NCF), have dedicated their efforts to studying the LTM's demography, ecology, and behaviour. Based on the finding on the basis of this the number of the LTM are healthy and steady in the southern part since 2009 of the country comparing with the overall population number. NCF recently adopted a number of conservation efforts, including the construction of 'bridges' to aid monkeys in traversing areas with a discontinuous canopy. When the monkeys descend onto highways that cut through forest pieces, NCF recruits members of the local community to regulate vehicle traffic. There is also a concerted effort underway to educate locals about the necessity of preserving this famous animal. One of the major knowing we all should is to stop feeding the LTM when it is not considered to be an act of kindness. But it is quite normal that we feels like feeding them. Throwing peanuts at them or showing them bananas are enjoyed by all of us while cherishing their appearance. However, eating on human-provided food has been shown to cause substantial changes in the diet and behaviour of many primate species, which may be detrimental to the species's long-term survival. Food gifts to monkeys also entice them to descend onto roadways, where motor activity poses a significant hazard to their survival. We may all use our voices to persuade policymakers, particularly when it comes to development projects and other mandates that damage not only the LTM but many other species. Even small actions like these can make a significant difference in the LT M's conservation. Our best hope for preserving this unique monkey species is to take strict and aggressive actions on a case-by-case basis. Active in situ conservation methods tailored to specific populations have unquestionably resulted in positive LTM conservation progress. Electric lines that traverse through LTM habitat, for example, offer a risk of electrocution in the Sirsi-Honnar belt, which is home to one of the largest wild populations of LTMs (638 individuals). The Karnataka forest department began the process of insulating these electric wires in 2017, thanks to the efforts of researchers from

SACON; thus far, half of the lines have been insulated, and the job is still ongoing. The NCF and the Tamil Nadu forest department have built six speed breakers in regions such as the Valparai Plateau, where roads and motor traffic pose one of the greatest hazards to the resident LTM population. Certain locations have showed positive trends in LTM levels when these conservation measures were implemented, however the changes have been slow. Following proposals from recognised LTM researcher HN Kumara and other prominent conservationists, the Karnataka Forest Department proclaimed the Aghanashini Lion-tailed Macaque Conservation Reserve in the Sirsi-Honnar belt in 2012.<sup>21</sup> Planting native trees can help with this. These will not only help to repair the canopy, but will also supply food for the monkeys. Conservation organisations must collaborate closely with local forest departments, private landowners, towns, and communities. People's negative impressions about these creatures can be shifted via education. Monkey-proofing the houses, prohibiting open trash disposal, providing regular rubbish collection (including that of medical waste), and teaching people not to feed the monkeys are all activities that can be taken to reduce primate-human conflicts. Finally, captive breeding is a part of conservation efforts. In the nineteenth century, the first lion-tailed macaques were introduced to American zoos. As natural numbers began to dwindle, a breeding programme was established in 1981, and the species was added to the Association of Zoos and Aquariums' Species Survival Plan (SSP) (AZA). The objective was to create a viable captive population. In 1989, Europe joined the endeavour, and India joined in 1996. Unfortunately, captive breeding has had limited success in India to far. The concept of captive husbandry in Indian zoos had its own pros and cons. Many zoos had over bred and inbred their animals due to a lack of a systematic breeding plan, while others had been stuck with only one species, multiple animals of the same sex, or a non-breeding group for years.<sup>22</sup> These facilities are responsible for maintaining and breeding the animals that will be retained for conservation purposes, thus genetic and demographic variables must be taken into account. Before any animal is relocated to the Breeding Centres, the origin, ancestry, and age of each species in India's 24 zoos will be

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<sup>21</sup> Ibid n @12.

<sup>22</sup> Dr. Ajith Kumar, Sanjay Molur, Sally Walker, Population and Habitat viability assessment workshop, held at Arignar Anna Zoological Park, Madras 11 to 14 October 1993 Report Coimbatore, (January 22,2022,4:52 PM), [https://zooreach.org/downloads/ZOO\\_CAMP\\_PHVA\\_reports/1993\\_LTM\\_PHVA\\_Report.pdf](https://zooreach.org/downloads/ZOO_CAMP_PHVA_reports/1993_LTM_PHVA_Report.pdf).

determined, and a national strategy will be developed. The level of enclosure design, feeding, medical treatment, and other aspects of zoo administration differed significantly between zoos, but it was believed that the establishment of a Central Zoo Authority and the recognition of zoo rules would go a long way toward guiding zoos toward better management. Even all those Small measures we take via an NGO or through an individual voice will reach the respective ears sooner or later. We must constantly cultivate love and warmth for them in order to flourish their existence. All that small efforts will one day be a huge leap which the whole world will look up to for adopting in order to save the endangered species from vanishing from this earth.

## **CONCLUSION**

Based on the finding done on the subject, the researcher is able to understand the existing legislations on the above topic. Even though many NGO's have taken significant steps in the conservation strategy of the LTM's along with national conservation policies, it has been noticed that a total protection and complete conservation of the species has not been possible on an overall scale. The techniques might work in the coming future but the duration of time required for this will be more than we are expecting. The legislations are very wide in the conservation of the wild animals but a significant law on the protection of LTM are not to be found. Project initiative by the central government and the state governments on the particular conservation of the LTM will surely help to conserve them in a short period of time and it will help to mainly a healthy number of the species and thereby an eventual increase in their number. A pretty good funding from the appropriate authorities to the already Existing NGO's who takes action for the LTM conservation will help to implement more effective strategies across the country for the conservation and protection of this endangered species. Last but not the least showing responsibility by each one of us will help to save this creature from extinction. Start that single action of care, now!