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TORTOISES AND FRESHWATER TURTLES UNDER SIEGE: At least 11,000 brace impact of illegal wildlife trade every year in India

TRAFFIC's latest analysis on illegal trade of tortoises and freshwater turtles in India over a 10-year period i.e. September 2009–September 2019, has found at least 1,11,312 tortoises and freshwater turtles reported in illegal wildlife trade, that comes to more than 11,000 individual animals every year since 2009. Considering that a significant proportion of illegal wildlife trade presumably goes undetected and the reported seizures are only a fraction of the actual trade, this is a very conservative estimate and the actual numbers would be much higher.

BACKGROUND:

Turtles and tortoises are taxonomically placed in the order Testudines within the class Reptilia or reptiles. Morphologically they are characterised by the presence of a bony or cartilaginous shell known as a *carapace*, which is an anatomical modification of the ribs. They represent one of the oldest groups of animals that have existed on this planet since the rise of dinosaurs, with the earliest fossil evidence of their existence dating back to 215 million years ago i.e. the late Triassic era.

IUCN's Tortoise and Freshwater Turtle Specialist Group reports that of the 356 known tortoise and freshwater turtle

species, some 179 (50.3%) are Threatened and a further seven species are already Extinct, although the proportion of threatened extant species is likely to be nearer 59% given how many are currently Data Deficient or are not evaluated.

These slow moving, otherwise tough animals who have successfully adapted to various evolutionary processes and have survived cycles of mass extinctions, are today finding it difficult to survive due to their unauthorised extraction from the wild for illegal trade as pets, for food, or for medicine. India is reported to be one of the world's major source as well as consumer of turtles and tortoises.

TURTLES AND TORTOISES IN INDIA

POPULATION STATUS:

Unknown in India (no comprehensive studies have been conducted to date)

NUMBER OF TORTOISES AND FRESHWATER TURTLES IN ILLEGAL WILDLIFE TRADE IN INDIA:

1,11,312 individual animals were found in illegal wildlife trade in India between September 2009–September 2019 that is more than 11,000 animals every year since 2009.

INTERESTING FACTS:

- Turtles and tortoises are folivores, frugivores, carnivores and can also be scavengers. They help keep terrestrial and aquatic ecosystems clean while some species also help keep populations of snails and insects in check, and help with seed dispersal.
- Male and female turtles can be identified by their morphological differences. Male is smaller, with a longer tail and sometimes with a concave plastron than in female.
- Tortoises reach sexual maturity by size and not by age.

DISTRIBUTION:

India is home to 28 species of tortoises and freshwater turtles along with five species of marine turtles.

The highest diversity is found in northeast India, where 23 species have been reported. Along Indian rivers, the maximum diversity of freshwater turtles is found in the Ganges, the Brahmaputra and their tributaries.

Two of them—Travancore Tortoise *Indotestuda travancorica* and Cochin Forest Cane Turtle *Vijayachelys silvatica*—are endemic to the Western Ghats while Leith's Softshell Turtle *Nilssonina leithii*, is endemic to peninsular India.

LEGAL STATUS:

Wildlife (Protection) Act, 1972: Most of the turtles and tortoise species of India are protected under various Schedules of the Act, under which hunting, trade or any other form of utilisation of the species or their body parts and derivatives is prohibited.

There are 17 species listed in Schedule I (topmost priority), one species in Schedule II and five in Schedule IV, while 10 species have not been listed under the Act.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): All turtle and tortoise species from India are listed under CITES. Thirteen are listed in Appendix I thus prohibiting their international trade while the rest are listed in Appendix II.

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THE SCALE OF POACHING AND ILLEGAL TRADE IN INDIA (TRAFFIC'S STUDY)



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TRAFFIC's research and analysis of illegal tortoise and freshwater turtles trade in India found a total of 1,11,312 individual animals traded during the 10-year period from September 2009–September 2019. The study helped assess the extent of poaching, identify trade hotspots, and understand poaching and trade dynamics.

METHODOLOGY: Data on tortoise and freshwater turtles' seizures were compiled from various secondary and primary sources including open source media monitoring, published scientific literature, available records from enforcement agencies as well as information gathered during field surveys. The types of seizures documented include seizures of live and dead turtles; hatchlings; body parts such as the calipee (fatty gelatinous substance found on the lower shell), bones and carapace. Only wildlife seizures within India pertaining to all Indian Testudine species except the five marine species were included. Seizure data pertaining to exotic/non- native species were not specifically sought or included in the analysis, however it has been mentioned separately as encountered.

THE SCALE OF POACHING AND ILLEGAL TRADE IN INDIA (TRAFFIC'S STUDY)

FINDINGS:



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- During the study period, 1,11,312 tortoises and freshwater turtles of Indian species were found in illegal wildlife trade from a total of 348 reported seizure cases. This equates to more than 11,000 individual animals poached and illegally traded every year or more than 200 individual animals per week.

- A total of 83,230 individuals were reported as seized alive and 855 as dead while the state of the remaining 27,227 individuals was either unknown or unreported.

- In addition to the seizures of individuals, some 210.5 kg of calipee, 100 kg of semi-dry bones and 26 carapaces were also reported as seized in various parts of the country.

- Seizures were reported from 19 States and 2 Union Territories of India.

- Uttar Pradesh and West Bengal emerged as the two major hotspots in terms of total number of individuals seized, accounting for more than 60% of all reported seizures.

- Other important States reporting significant numbers of seizures are Tamil Nadu, Andhra Pradesh/Telangana*, Kerala, and Bihar.

- When analysed by the “number of individual animals seized per seizure”, West Bengal, Jharkhand and Andhra Pradesh/Telangana* emerged as the top States. This might indicate that these regions are either collection points for mass consumption or act as transit points for international trade.

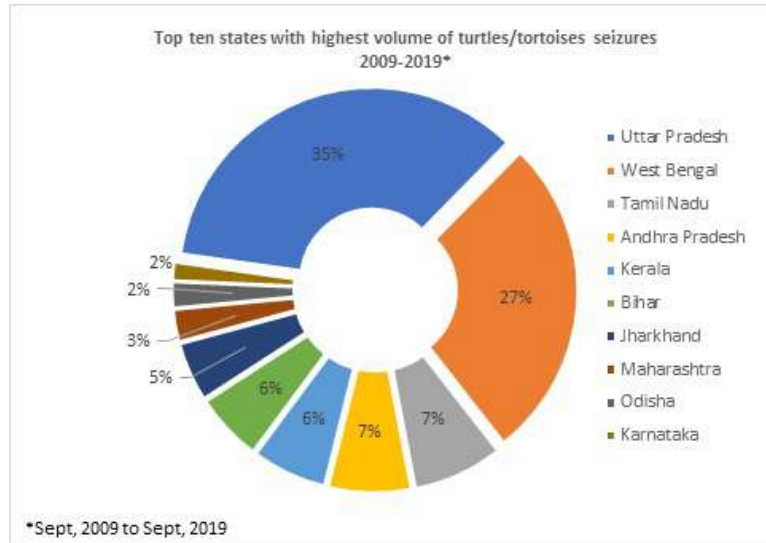
- During the period of analysis, 14 Indian Testudine species were found in illegal trade. Out of these, seven are listed in Schedule I or Schedule II of the Wildlife (Protection) Act, 1972, while three are listed in Schedule IV.

- In a significant number of seizures (51.5% of the total reported cases), the species of seized individuals was either not identified or simply not mentioned in the seizure report.

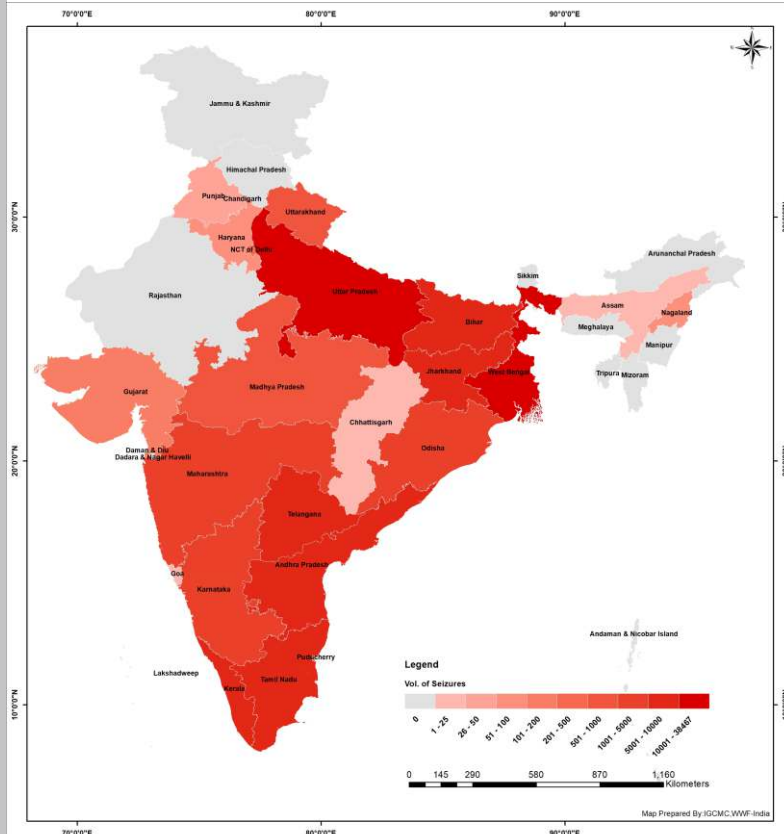
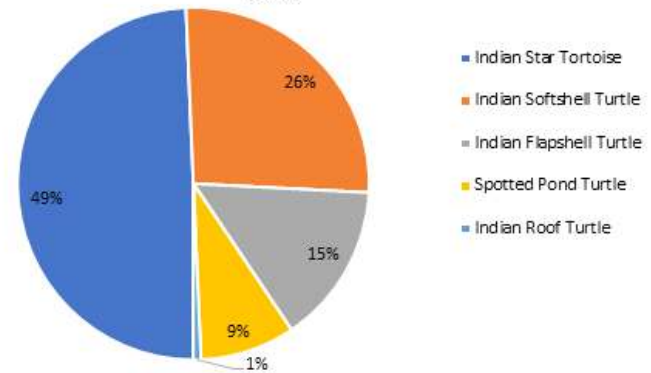
- Of the 48.5% cases where the species was documented and reported, Indian Star Tortoise *Geochelone elegans* accounted for 49% of the total individuals seized followed by Indian Softshell Turtle *Nilssonina gangetica* (26%), Indian Flapshell Turtle *Lissemys punctata* (15%) and Black spotted or Spotted Pond Turtle *Geoclemys hamiltonii* (9%).

Exotics turtles recorded during the study period: In addition to the seizures of Indian species, seizure incidents totaling 37,404 exotic turtles belonging to six different species were also encountered. The majority of these exotics turtles and tortoises which are either brought or bred in India for the pet trade are the popular Red-eared Slider *Trachemys scripta elegans*. Of the six exotic species found in trade, three are listed in Appendix I of CITES, while one is listed in Appendix II and one in Appendix III of CITES.

*Since the data are from 2009 onwards, records from the States of Andhra Pradesh and Telangana have been combined.



Top five Species of turtles/tortoises in trade in terms of numbers in trade



DISCUSSIONS:

- Identification of tortoise and freshwater turtles species in trade by law enforcement agency staff appears to be a challenge as the identity of species in 51.5% of seizure cases analysed during the study period was not reported. This species level identification assumes importance as the Indian Wildlife (Protection) Act, 1972, prescribes different levels of punishment for offences, depending on the Schedule in which the species is listed. Hence species identity is critical for ensuring appropriate law enforcement action.

- Capacity building training exercises and workshops and/or development of field-based identification tools (ID cards, posters, mobile apps etc.) are urgently required.

- Given that the Indian Star Tortoise dominates seizures, there is a strong case for raising its level of protection in the Indian Wildlife (Protection) Act, 1972, from the current Schedule IV to Schedule I. The recent success of India in getting the Indian Star Tortoise uplisted to Appendix I of CITES should help to restrict its illegal international trade.

- Various Schedules of the Indian Wildlife (Protection) Act, 1972, should be updated to include species encountered in trade but not currently listed in the Act.

- Further detailed trade related studies are needed, especially for species like Indian Star Tortoises and Black Spotted Turtles which are being actively trafficked to countries outside India either for pet trade or for consumption as food or medicine. This will help in understanding the international demand for Indian species as well as the international trade linkages.

- Often large volumes of Testudines are seized at the international transit points or are sometimes repatriated by other countries. In such cases tracing the actual place of origin of seized individuals becomes a challenge which could be resolved by preparing region-wise genetic profiles of these species to establish the provenance of seized animals so that they can be released close to their actual place of illegal collection.

- A detailed protocol on rehabilitation and release of seized Testudines is needed. Currently, in absence of a standard protocol, high mortality among seized individuals is reported. Regional centres for rescue and rehabilitation of rescued turtles and tortoises need to be established. These centres should be equipped with adequate infrastructure to follow approved Standard Operating Procedures (SoPs) for quarantine, captive management and healthcare of Chelonians. They could also serve as referral centres for identification and provide training to field level protection staff. This will improve overall outcomes of investigation, will reduce mortality and help in rehabilitation of healthy individuals back into the wild.

- Public transport systems like buses, railways, ships and airlines are often used for smuggling Testudines. The agencies responsible for checking misuse of the public transportation system should be engaged and oriented towards extent of illegal wildlife trade. Cooperation of the Police, Railway Protection Force, Indian Customs, Central Industrial Security Force as well as several border protection agencies like ITBP, SSB, BSF etc is crucial in this regard.

- An awareness campaign to inform the public about the plight of Testudines in illegal wildlife trade should be undertaken on a priority.

- Cyberspace is being increasingly used by traders to buy and sell turtle and tortoise species. This poses a huge challenge for enforcement agencies. It is important to engage with internet-based companies to stop the use of their platforms for this crime and also to train enforcement agency staff on how to monitor and detect any illegal trade on these platforms.

- As several exotic species are also being freely traded in the country, there is an urgent need to harmonise the Wildlife (Protection) Act, 1972, with CITES legislation. At present, CITES protected non-native species have no protection under national wildlife legislation, when traded within the country. As a result, wildlife enforcement agencies find it difficult to act against traders dealing with CITES listed exotic species inside the borders of the country.



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