TRAFFIC WARSNS OF A RISE IN POACHING AND ILLEGAL TRADE OF TORTOISES AND FRESHWATER TURTLES IN AND AROUND TERAI ARC LANDSCAPE:

CALLS FOR UPSCALED ENFORCEMENT EFFORTS AND INCREASED LOCAL AWARENESS TO HANDLE THIS CRISIS

TRAFFIC points towards a surge in tortoise and freshwater turtles (TFTs) poaching and illegal trade noticed in and around the region of Terai Arc Landscape (TAL), mainly the select areas of Uttarakhand, Uttar Pradesh and Bihar, and their nearby areas. Latest seizures of turtles reported from November 2020 till January 2021 account for more than 6500 freshwater turtles, including Indian Flapshell Turtles *Lissemys punctata*, Indian Softshell Turtles *Nilssonia gangetica* and Indian Peacock Turtles *Nilssonia hurum* in this region, bringing into focus the unabated illegal trade of freshwater turtles in TAL.

An earlier study by TRAFFIC on poaching and illegal trade of (TFTs) in India for the period 2009-2019 had revealed that a minimum of 1,11,310 TFTs entered illegal wildlife trade in 10 years, equating to more than 11,000 individuals in illicit wildlife trade every year or at least 200 per week since 2009. TAL had emerged as one of the prime regions for illegal collection, trafficking, and trade of tortoises and freshwater turtles in the country in the TRAFFIC study.

The recent seizures of turtles are a grim reminder of the threat to TFTs from illegal wildlife trade that usually peaks around the winter months due to a surge in demand for meat.

With this latest data, TRAFFIC urges enforcement agencies to ramp up their vigilance and strengthen wildlife law enforcement mechanisms to combat and curb the illegal trade of TFTs.
In India, TFTs are targeted for their meat, to be kept as pets, or in the manufacturing of fashion articles, surgical suture, leather products etc. They are also targeted for their calipee (yellowish material found inside the lower side of the turtles’ carapace) used in traditional medicine and as an ingredient of special soups.

Poaching of TFTs for meat, medicines, or being kept as pets are the main drivers of TFTs’ illicit domestic trade. They are reportedly smuggled throughout India and also across Indian borders to Bangladesh, Myanmar and beyond to international destinations.

### BACKGROUND

For centuries and across geographies, TFTs have been exploited for subsistence, for medical use and as a source of protein. As a result of habitat loss and over-exploitation, many TFTs across the globe stand threatened, and on the verge of extinction in the wild. For instance, according to IUCN, the status of both Black Softshell Turtle and Northern River Terrapin is currently ‘critically endangered’. This recent change of status, say for Black Softshell Turtles from ‘extinct in the wild’ to ‘critically endangered’, is believed after concerted efforts were made in Assam to revive its population and after they were spotted elsewhere in West Bengal.

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Prominent freshwater turtle species found in the country’s meat trade include Indian Flapshell Turtle, Indian Softshell Turtle, Indian Peacock Softshell Turtle and Indian Narrow-headed Softshell Turtle Chitra indica. While prominent freshwater turtle species found in the pet trade include Indian Tent Turtle Pangshura tentoria, Indian Roofed Turtle Pangshura smithii, and Black Spotted Pond Turtle Geoclemys hamiltoni. Other TFTs species like Tricarinate Hill Turtle Melanochly tricarinata, Elongated/Yellow Tortoise Indotestudo elongate, and Brown-roofed Turtle Pangshura smithii have also been seen in illegal trade in India for pet and meat trade though in limited numbers.

### LATEST INCIDENCES OF TRAFFICKING OF TURTLES FROM NORTH INDIA

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Species</th>
<th>Nos. seized</th>
<th>Seized-Dead/alive/parts</th>
<th>Agencies/Organisations involved</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-Dec-20</td>
<td>North 24 Parganas, West Bengal</td>
<td>Indian Flapshell Turtle Lissemys punctata, Indian Peacock Softshell Turtle Nilssonia hurum</td>
<td>1500</td>
<td>Dead, alive</td>
<td>Forest Department, West Bengal; Wildlife Crime Control Bureau</td>
<td><a href="https://bit.ly/seizure02">https://bit.ly/seizure02</a></td>
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<tr>
<td>29-Dec-20</td>
<td>Naihati, North 24 Parganas, West Bengal</td>
<td>Indian Softshell Turtle Nilssonia gangetica</td>
<td>600</td>
<td>Dead, alive</td>
<td>Forest Department, West Bengal; Wildlife Crime Control Bureau</td>
<td><a href="https://bit.ly/seizure03">https://bit.ly/seizure03</a></td>
</tr>
</tbody>
</table>
**LEGAL STATUS**

India is home to 29 species of TFTs of which five are assessed as 'Vulnerable', 11 'Endangered', eight 'Critically Endangered' and two 'Near-threatened' according to IUCN Red List. In India, most TFTs species are protected under the Wildlife (Protection) Act, 1972. Their international trade is further regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), to which India is a party since 1976. However, despite the legal framework to protect the species from exploitation, poaching and illegal wildlife trade persist.

**POACHING AND SMUGGLING OF TFTs IN TAL**

In the context of the recent spate in TFTs seizures, TRAFFIC analysed the wildlife seizure data related to poaching of TFTs between 2014 and 2019 and identified the traditional hotspots for illegal trade in TFTs in the TAL region. This information can be used by the enforcement agencies to develop effective strategies for curbing poaching and smuggling of TFTs in the area.

Analysed data related was used to create a heat map for such seizures in TAL. The base heat map produced during the study and presented here indicates:

1. TFTs seizures in the area between 2014-2019.
2. Superimposed red circles correspond to TFTs seizures between August 2020 – December 2020, including recent seizures.
3. Seizures in West Bengal and New Delhi are also shown for reference as Delhi lies close to TFTs seizures hotspots in Uttar Pradesh while most turtles are smuggled to West Bengal.
4. The size of the red circle corresponds to the number of individuals seized in each seizure.
5. The map also provides indicative directions of the turtle trade route from Uttar Pradesh.

The data collected indicates that a large number of turtles are poached in Indo-Gangetic plains which then make their way to different markets within India and beyond, such as Bangladesh, Myanmar, and others in Southeast Asia. TRAFFIC study had found that since 2009, 15 different species of TFTs have been seized from TAL region, of which three are 'Critically Endangered', seven are 'Endangered', two are 'Vulnerable', one is 'Near Threatened' while two are listed as 'Least Concerned', according to IUCN Red List.
3. The study also found that Bihar is a crucial TFTs trade centre as most TFTs trade routes pass through the state. Many turtles are also routed to different locations out of the state. However, due to the paucity of available data related to TFTs’ seizure in the public domain, no precise estimate of the scale of the problem could be ascertained.

4. The main drivers of TFTs’ illegal trade in the TAL region are illicit pet trade and meat consumption. While trade of TFTs as pets is active across India, meat consumption is mainly concentrated in West Bengal (and neighbouring Bangladesh). Meat is also consumed in select localities in Uttar Pradesh, Bihar and Uttarakhand; however, the scale is significantly lower than that in West Bengal.

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>IUCN Redlist Status</th>
<th>Wildlife (Protection) Act 1972</th>
<th>CITES</th>
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<tbody>
<tr>
<td>Batagur kachuga</td>
<td>Red-crowned Roofed Turtle</td>
<td>Critically Endangered</td>
<td>Schedule II</td>
<td>Appendix II</td>
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<tr>
<td>Chitra indica</td>
<td>Indian Narrow-headed Softshell turtle</td>
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<td>Appendix II</td>
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<tr>
<td>Indotestudo elongata</td>
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<td>Nilssonia ganetica</td>
<td>Indian Softshell Turtle</td>
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<td>Appendix I</td>
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<tr>
<td>Hardella thurjii</td>
<td>Brahminy River Turtle / Crowned River Turtle</td>
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<td>Geoclemys hamiltoni</td>
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<td>Indian Eyed Turtle</td>
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<td>Appendix II</td>
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<td>Melanochelys tricarinata</td>
<td>Tricarinate Hill Turtle</td>
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<td>Schedule I</td>
<td>Appendix I</td>
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<td>Nilssonia hurum</td>
<td>Indian Peacock Softshell Turtle</td>
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<td>Schedule I</td>
<td>Appendix I</td>
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<tr>
<td>Melanochelys trijuga</td>
<td>Indian Black Turtle</td>
<td>Least Concerned</td>
<td>Not Listed</td>
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<tr>
<td>Pangshura smithii</td>
<td>Brown Roofed Turtle</td>
<td>Near Threatened</td>
<td>Not Listed</td>
<td>Appendix II</td>
</tr>
<tr>
<td>Pangshura tecta</td>
<td>Indian Roofed Turtle</td>
<td>Vulnerable</td>
<td>Schedule I</td>
<td>Appendix I</td>
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<tr>
<td>Pangshura tentoria</td>
<td>Indian Tent Turtle</td>
<td>Least Concerned</td>
<td>Not Listed</td>
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<td>Lissemys punctata</td>
<td>Indian Flapshell Turtle</td>
<td>Vulnerable</td>
<td>Schedule I</td>
<td>Appendix I</td>
</tr>
</tbody>
</table>

**CONSERVATION AND LEGAL STATUS OF COMMONLY FOUND TFTS IN ILLEGAL WILDLIFE TRADE IN TAL**

**KEY FINDINGS**

1. The above map shows that areas around Agra, Kanpur, and Sultanpur in Uttar Pradesh are significant TFTs seizure points.

2. Some areas on the Uttar Pradesh-Uttarakhand border (Dehradun-Mujjafarnagar-Saharanpur and Haldwani-Moradabad-Pilibhit) are critical hotspots of trade.

3. The study also found that Bihar is a crucial TFTs trade centre as most TFTs trade routes pass through the state. Many turtles are also routed to different locations out of the state. However, due to the paucity of available data related to TFTs’ seizure in the public domain, no precise estimate of the scale of the problem could be ascertained.
Uttarakhand has an abundance of ponds and rivers in the Terai area. Some of these include stretches of river such as Ramganga, Sarda, and Ganga and its tributaries, which are prime turtle poaching sites.

Most poaching areas and 'holding sites' (nearest hubs to poaching areas where TFTs are kept for a short duration while waiting to be transported to their ultimate destination) fall near Saryu and Ghagra River systems, such as in Gonda, Bahraich, Lakhimpur Kheri, Jaunpur, and Gonda. Major turtle seizures have been reported from areas near Kanpur, Agra, Sultanpur, and Meerut.

Uttarakhand

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CALL FOR ACTION

NEED TO UPSCALE ENFORCEMENT EFFORTS OF FOREST DEPARTMENTS:

1. Identifying poaching hotspots: The identified hotspots need to be regularly monitored to get a better insight about the trade and also to curb this menace. This will also help in identification of other such hotspots in the nearby areas.

2. Sharing information related to TFTs trade among agencies: Sharing crime data related to poaching and trade of TFTs among various enforcement agencies such as forest departments, police, and Wildlife Crime Control Bureau is crucial to curb this illicit trade. Creating a digital platform for coordinating this can prove to be helpful.

3. Increasing patrols: The scale of patrolling through land or water by enforcement agencies should be intensified during the pre and post-monsoon periods when the illegal extraction of TFTs occurs. It should also be further increased during winters when the illegal trade peaks due to increasing demand for meat consumption.

4. Monitoring poaching of associated species in illegal trade: Since the fat of Gangetic River Dolphin *Platanista gangetica* is often used to bait and hunt turtles, dolphin poaching incidents and all mortality cases should be closely monitored and treated as indicators of potential turtle poaching.

5. Strengthening cooperation and collaboration across borders: International coordination, especially at the India-Bangladesh border, India-Nepal border and India-Myanmar border to detect and investigate crossing consignments for TFTs, could be considered a viable means to curb this trade.

BUILDING CAPACITY OF WILDLIFE LAW ENFORCEMENT AGENCIES SUCH AS FOREST DEPARTMENT, POLICE, RAILWAY PROTECTION FORCE, BORDER SECURITY FORCES AND OTHERS

1. Build identification skills on TFTs in India: A major handicap reported by the enforcement officials is the correct identification of protected species found in the illegal wildlife trade. Enforcement officials must build their knowledge through training or by using tools available for the identification of TFTs in India.

2. Inculcate skills and knowledge to intercept ongoing wildlife crime on digital platforms: As the internet has emerged as a medium to trade endangered wildlife, including the TFTs, enforcement agencies must build newer capacities to intercept digital technologies and handling digital evidence to deal with wildlife cybercrime effectively.

3. Adopt use of wildlife sniffer dogs: As the majority of TFT's are smuggled using road or rail transport, the use of specially trained wildlife sniffer dogs by forest departments, Railway Protection Force, and Police can be an essential intervention to detect and prevent trafficking of TFTs.

BUILDING AWARENESS

1. Sensitise and educate communities: Many groups in the area have been clandestinely dependent on trade in TFTs. These groups should be made aware of the threatened status of TFTs and legal ramifications. Developing and distributing communication material such as posters and pamphlets in regional languages will help to drive awareness. Local NGOs can support the forest department in undertaking such initiatives.

Simultaneous efforts to wean such groups away from this illegal activity needs to be taken up, and also special programmes to provide them alternative livelihood opportunities should be undertaken.
THE TERAI ARC LANDSCAPE:

The Terai Arc Landscape (TAL) is an 810km stretch between the river Yamuna in the west and the river Bhagmati in the east, comprising the Shivalik hills, the adjoining bhabhar areas and the Terai flood plains. It is spread across the Indian states of Uttarakhand, Uttar Pradesh and Bihar, and the low lying hills of Nepal. The landscape boasts of some of India's most well-known Tiger Reserves and Protected Areas such as Corbett Tiger Reserve, Rajaji National Park, Dudhwa Tiger Reserve, Valmiki Tiger Reserve and Nepal's Bardia Wildlife Sanctuary, Chitwan National Park, and Sukhla Phanta Wildlife Sanctuary. In total, the landscape has 13 Protected Areas, nine in India and four in Nepal, covering a total area of 49,500 km², of which 30,000km² lies in India.

REFERENCES: