CONSERVATION, REINTRODUCTION AND REHABILITATION OF THREATENED TURTLES ALONG GANGA BASIN IN UTTAR PRADESH, INDIA

FINAL PROJECT REPORT

Submitted by

TSA FOUNDATION INDIA

DECEMBER 2025

FINAL PROJECT REPORT

Name of the Project: Conservation, Reintroduction and Rehabilitation of Threatened Turtles Along Ganga Basin in Uttar Pradesh, India

Submitted to: Namami Gange/National Mission for Clean Ganga

Date of Submission: 30.12.2025

Time Period- December 2024 - November 2025

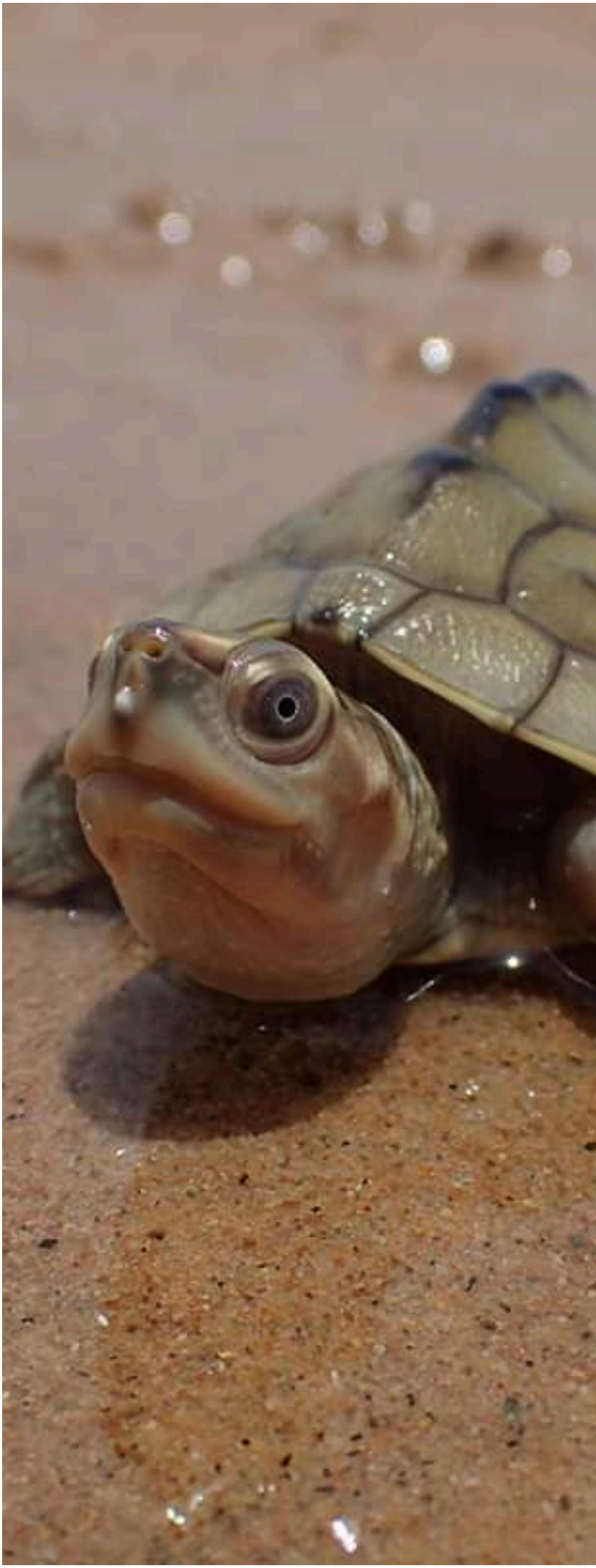
Principal Investigator: Dr. Shailendra Singh

Team: Mr. Bhasker Mani Dikshit, Dr. Arunima Singh, Mr. Pawan Shantiprakash Pareek, Ms. Sreeparna Dutta, Mr. Harshit Singh, Ms. Megha Khanduri & Dr. Ashish Kumar Singh (Vet.)

Field Assistants: Mr. Shishubhan Singh, Mr. Rinku Kumar, Mr. Santram Nishad, Mr Ramesh Singh, Mr. Raju Nishad, Mr. Ramanand, Mr. Dilip Kumar Yadav & Mr. Arun Rawat

Photo credits: TSAFI Team

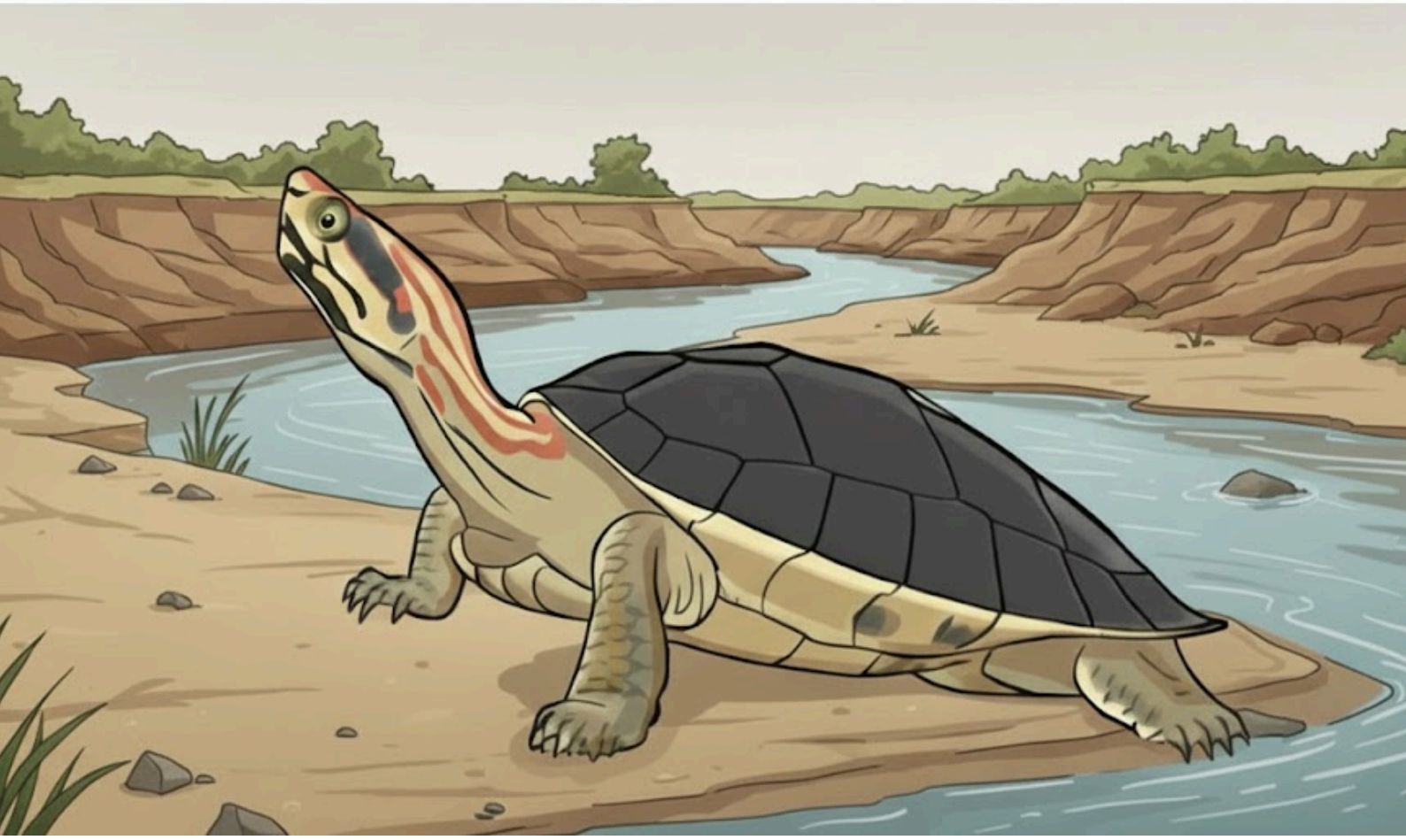
Design- Ms. Sreeparna Dutta



Dr. Shailendra Singh
Director
TSA Foundation India

Dr. Arunima Singh
CEO
TSA Foundation India

Mr. Pawan Shantiprakash Pareek
Project Biologist
TSA Foundation India



Conservation, Reintroduction and Rehabilitation of Threatened Turtles Along Ganga Basin in Uttar Pradesh,India

ACKNOWLEDGEMENTS

We would like to express our deepest gratitude to the National Mission for Clean Ganga (Namami Gange) for the financial support. Our heartfelt thanks go to Mr. Rajeev Kumar Mital, IAS, Director General of NMCG, for his constant support, guidance and encouragement.

We are immensely thankful to Mr. Sunil Chaudhary, IFS, Principal Chief Conservator of Forests and Head of Forest Force, Uttar Pradesh, and Mrs. Anuradha Vemuri, IFS, PCCF (Wildlife), for their invaluable support and guidance.

We sincerely appreciate the guidance of Mr. Neeraj Kumar, IFS, APCCF/CCF, Eco Development, Mr. NK Janoo, CCF (Kanpur), Mr. Rengaraju T., IFS, CF, Endangered Project, Dr. Ravi Kumar Singh, IFS, CF, Varanasi circle, Dr. Anil Patel, IFS, CF Agra & Director Etawah Lion Safari Park, Mr. Adarsh Kumar, CF Meerut, Mr. Rajesh Kumar, IFS DFO Agra, Mr. Manish Singh, IFS DFO, Pilibhit Tiger Reserve, Ms. Chandani Singh, IFS, DCF National Chambal Sanctuary & Mr. Anurag Priyedarshi, IFS, DFO Gonda for their consistent support and guidance.

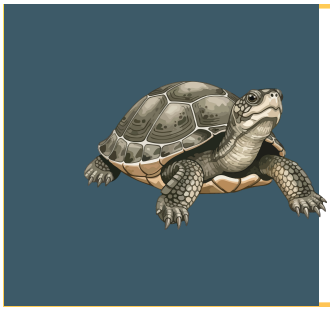
We would also like to express our gratitude to Mr. Bhasker Dasgupta, Executive Director, Finance NMCG. We are deeply appreciative of Biodiversity PUC of NMCG consisting of Dr. Sandeep Behera, Mr. Sunil Kumar & Dr. Binod Sethi for their unwavering support and input throughout the project.

We thank Dr Aravind Chaturvedi, former IPS and Leadership of Department of Animal Husbandry and Dairying, UP for their cooperation and support with certain component of this project. Indian School of Nature, Wildlife Crime Control Bureau, Narora Atomic Power Station and Wildlife SOS are thanked for providing logistical support to the field teams.

PROJECT HIGHLIGHTS

A total of 221 frontline forest staff and 45 veterinarians from high-risk trade zones/ rescue prone districts/divisions were trained through hands-on workshops, for turtle identification, safe handling, health monitoring and rehabilitation.

Intensive support was provided to enforcement agencies across multiple turtle trade–sensitive districts, resulting in the scientific rehabilitation of over 250 confiscated freshwater turtles representing five species.



Threatened turtle species including 15 (10 radio tagged) captive hatched *Chitra indica,* 60 *Hardella thurjii* (10 radio tagged) and 20 *Batagur kachuga* (all radio tagged) re-wilded in Yamuna, Sarju and Ganga rivers respectively with robust monitoring protocol. Dispersal and survival maps ready.

Total 387 vulnerable nest (8257 eggs) of endangered *Batagur* turtle species were protected in Chambal through two riverside hatcheries. This ensured safe return of 7979 hatchlings back into the river, marking an overall hatching success of 96.7%.

Technology-driven conservation was advanced through the institutionalization of SMART-based riverine patrolling across 210 km of the Chambal River in Uttar Pradesh.

4 awareness cum consultation workshops in trade prone areas reaching out to 240 individuals. 70 women from the marginalized *Kanjar* community received skill development training in candle-making to reduce dependency on illegal turtle trade.

EXECUTIVE SUMMARY

The project "Conservation, Reintroduction and Rehabilitation of Threatened Turtles along the Ganga Basin in Uttar Pradesh,India" addressed critical conservation challenges faced by most endangered freshwater turtles along key river locations in the Ganga basin through an integrated framework combining enforcement support, scientific reintroduction, habitat protection, technology-enabled monitoring, and community engagement.

Under the re-wilding and population recovery component, the project achieved several national milestones. Fifteen captive-reared sub-adults of Narrow-headed Softshell Turtles (*Chitra indica*) were supplemented into the middle Yamuna. Out of that 10 turtles were tagged with radio-transmitters and were monitored.

Additionally, 20 captive-bred, Red-crowned Roofed Turtles (*Batagur kachuga*) were tagged with acoustic transmitters and reintroduced into the Upper Ganga near Haiderpur Wetland Complex—marking the first monitored reintroduction of the species in its historic range after three decades. Monitoring indicated at least 50% survival. Similiarly, 60 individuals of Crowned River Turtle (*Hardella thurjii*) were released into the Sarju River, accompanied by robust post-release monitoring of 10 tagged individuals. Radio-tagged turtles were extensively monitored for 256 man-days during the project period yielding critical insights on their survival and dispersal.

Intensive support was provided to enforcement agencies across multiple turtle trade–sensitive districts, resulting in the identification, handling, rehabilitation, and release of over 250 confiscated freshwater turtles representing five species, including the critically endangered *Batagur kachuga.* Rapid response protocol was strengthened through on-site triage support, development of a temporary holding facility along Saryu River in Bahraich district, and structured coordination with forest departments to ensure scientifically sound rehabilitation and survivability.

A strong emphasis was placed on capacity building, with 7 targeted trainings conducted for 221 frontline forest staff, 45 veterinarians and 32 youths across high-risk trade zones. These training enhanced species identification skills, legal awareness on the revised Wildlife (Protection) Act, triage procedures, and safe handling, leading to demonstrable improvements in enforcement preparedness and survival of confiscated cohorts. Key outreach materials, including a Turtle Rescue Handbook and species identification poster, were developed and disseminated.

The project significantly strengthened nest protection and early life-stage survival in the National Chambal Sanctuary through SMART-enabled patrolling, establishment of riverside hatcheries, and systematic nest monitoring. A total of 387 nests (8257 eggs) of two *Batagur* species were protected, resulting in the successful emergence and safe return of 7,979 hatchlings, achieving an overall hatching success of 96.7%. 100 hatchlings of *B. kachuga* were head-started (reared) under a rear-and-release program to enhance long-term population recruitment.

Technology-driven conservation was advanced through the institutionalization of Spatial Monitoring and Reporting Tool (SMART) based riverine patrolling along 210 km of the Chambal River. in Uttar Pradesh. The initiative documented turtles and sympatric species and anthropogenic threats and culminated in the establishment of a fully functional SMART Lab at the Garaita Turtle Conservation Centre, Etawah to support real-time data analysis and map generation.

Recognizing the role of communities in long-term conservation success, the project implemented skill development and pilot livelihood intervention. Awareness, confidence building cum stakeholder meetings in 4 trade prone areas (districts) were conducted to reach out 240 members of known hunting communities. 70 women from the marginalized *Kanjar* (Semi-nomad tribal) community in Sultanpur received skill development training as entry level activity in candle-making, supported with raw materials to enable immediate income generation and reduce dependence on illegal wildlife trade. The project was showcased in 6 different state level events in Uttar Pradesh and Rajasthan and educated over 2000 visitors about freshwater turtle plight and conservation efforts.

With a clear goal, the project demonstrates a scalable, science-driven, and socially inclusive conservation model that integrates enforcement strengthening, applied research, habitat protection, technological monitoring, and community livelihood alternatives.

TABLE OF CONTENTS

COMPONENTS

Conservation, Reintroduction and Rehabilitation of Threatened Turtles along Ganga Basin in Uttar Pradesh, India

1

Strengthening on-site triage, and rehabilitation program for the rescued turtles along Gangetic Basin in Uttar Pradesh

2

Re-wilding of Three Threatened Turtle Species in Ganga Basin, Uttar Pradesh

3

Instituting Spatial Monitoring and Reporting Tool (SMART) based Riverine Patrolling alongside Recovery of Endangered Turtles in National Chambal Sanctuary, UP

COMPONENT 1

Strengthening On-site Triage, and Rehabilitation Program for the Rescued Turtles along Gangetic Basin in Uttar Pradesh

1.1 Strengthening of Rapid Response Team for Efficient Onsite Primary Care and Triage of the Confiscated Turtles

During the reporting period from December 2024 to November 2025, enforcement authorities in the Etawah, Varanasi, Barabanki, Pilibhit, Gandhinagar Lucknow, Pratapgarh & Shrawasti districts/divisions confiscated 261 freshwater turtles. These turtles encompassed 5 species, including the Red Crowned Roofed Turtle (*Batagur kachuga*), Indian Black Turtle (*Melanochelys trijuga*), Indian Softshell Turtle (*Nilssonia gangetica*), Indian Peacock Softshell Turtle (*Nilssonia hurum*) & Indian Flapshell Turtle (*Lissemys punctata*). We are in constant dialogues with DRI and UPGRP to disseminate training modules to various teams across Uttar Pradesh and Bihar.

The project team played a vital role in supporting the forest department with various inputs:

Species Identification: They meticulously identified the turtle species using morphological characteristics to ensure precise classification.

Health Assessment: The team conducted a comprehensive triage process, assessing the health, nutritional status, and any injuries of the turtles, thus prioritizing care needs based on severity.

Drafting Reports: They assisted forest staff in preparing the primary offence report (POR), meticulously documenting each seizure event and providing detailed accounts of the species involved.

Rehabilitation Support: Finally, the team facilitated the rehabilitation of the turtles, ensuring their return to ecologically appropriate habitats.

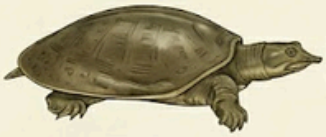
Enforcement Support to Turtles Rescued from Illegal Trade

Etawah, Varanasi, Barabanki, Pilibhit, Gandhinagar, Lucknow,
Pratapgarh & Shrawasti Districts/Divisions

Indian Flapshell Turtle
(*Lissemys punctata*): 230

Species Name	Scientific Name	No. of individuals
Indian Flapshell Turtle	*Lissemys punctata*	230
Red Crowned Roofed Turtle	*Batagur kachuga*	22
Indian Softshell Turtle	*Nilssonia gangetica*	5
Indian Peacock Softshell	*Nilssonia hurum*	3
Indian Black Turtle	*Melanochelys trijuga*	1
Total:		**261**

Red Crowned Roofed Turtle
(*Batagur kachuga*): 22



Indian Softshell Turtle
(*Nilssonia gangetica*): 5

Indian Peacock Softshell
(*Nilssonia hurum*): 5

Indian Black Turtle
(*Melanochelys trijuga*): 1

ENFORCEMENT DATA

Table 1: Details of turtles confiscated from Illegal trade and support provided

Date	Location	Species	Details
22.12.2024	Varanasi (GRPF and RPF)	Indian Flapshell Turtle (*Lissemys punctata*)	Identification and Husbandary Support Provided
23.12.2024	Barabanki Forest Division	Indian Flapshell Turtle (*Lissemys punctata*)	Identification, triage and Release Support
25.12.2024	Pilibhit Tiger Reserve	Peacock Softshell Turtle (*Nilssonia hurum*), Indian Flapshell Turtle (*Lissemys punctata*), Indian Black Turtle (*Melanochelys trijuga)*	Identification, Triage and Release Support Provided
24.05.2025	Etawah	Red Crowned Roofed Turtle (*Batagur kachuga*)	Identification, Triage and Release Support Provided
27.05.2025	Lucknow/Gandhigram	Peacock Softshell Turtle (*Nilssonia hurum*), Indian Flapshell Turtle (*Lissemys punctata*),	Identification, Triage and Release Support Provided
28.05.2025	Pratapgarh	Indian Flapshell Turtle (*Lissemys punctata*),	Identification, Triage Support Provided
28.05.2025	Shravasti	Indian Flapshell Turtle (*Lissemys punctata*),	Identification, Triage Support Provided

TURTLES CONFISCATED FROM ILLEGAL TRADE

AND SUPPORT PROVIDED

22.12.2024
VARANASI (GRPF & RPF)

Indian Flapshell Turtle
(*Lissemys punctata*)

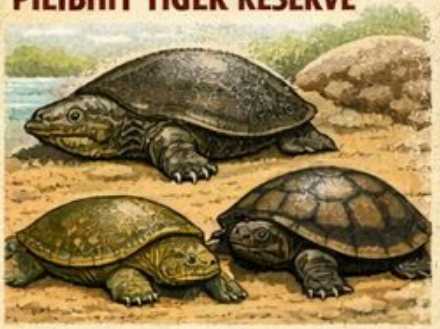
Identification & Husbandry Support Provided

23.12.2024
BARABANKI FOREST DIVISION

Indian Flapshell Turtle
(*Lissemys punctata*)

Identification, Triage & Release Support

25.12.2024
PILIBHIT TIGER RESERVE



- Peacock Softshell,
  Indian Flapshell &
- Indian Black Turtles

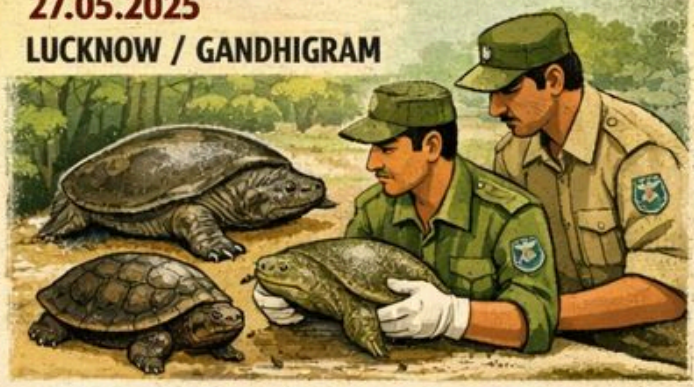
Identification, Triage & Release Support

24.05.2025
ETAWAH

- *Red Crowned Roofed Turtle*
  (Batagur kachuga)

Identification, Triage & Release Support

27.05.2025
LUCKNOW / GANDHIGRAM



- Peacock Softshell & Indian Flapshell Turtles

Identification, Triage & Release Support

28.05.2025 PRATAPGARH & SHRAVASTI

- Indian Flapshell Turtles (*Lissemys punctata*)

Identification & Triage Support Provided

Development of Temporary Holding Area at Identified Sensitive Location

A temporary holding and triage facility was established at Chudipurwa village, Bahraich, to facilitate short-term care, clinical observation, and post-confiscation monitoring of freshwater turtles recovered from illegal trade and presenting with minor injuries or physiological stress. The facility comprises a purpose-built pit measuring approximately 31 × 15 ft, equipped with a regulated inlet and outlet system that enables continuous water circulation and maintenance of appropriate water quality. The structure is securely enclosed with iron mesh to prevent access by predators and nuisance fauna (e.g., rodents), thereby reducing the risk of secondary injury, infection, and stress. This facility provides a controlled environment for initial stabilization, basic veterinary intervention, and recovery prior to the release of rehabilitated individuals into suitable natural habitats

1.2 Increased Capacity of Enforcement Agencies, and Communities through Targeted Training and Resource Development

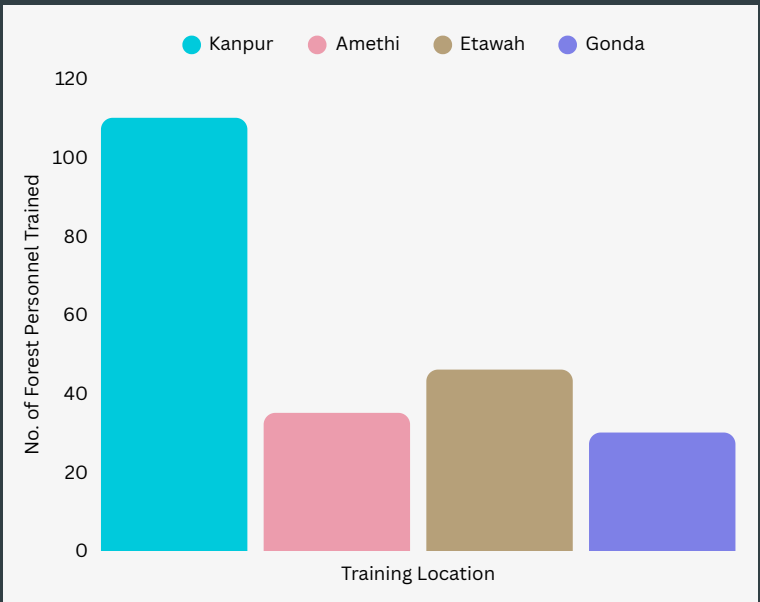
221	45	4
Frontline Forest Staff Trained	Veterinarians Trained	Trade sensitive Zones Covered

Training of Frontline Forest Staff

During the reporting period, the project implemented a series of targeted capacity-building trainings to strengthen the technical, legal, and operational capabilities of forest department personnel across identified turtle trade–sensitive regions of Uttar Pradesh.

On 14 December 2024, a specialized training session was conducted at the Kanpur Forest Training Institute (KFTI) focusing on turtle species identification, triage procedures, and recent amendments to the Wildlife (Protection) Act, 1972. The training aimed to enhance the capacity of 110 newly appointed and trainee subordinate forest officers and adopted a blended methodology combining technical presentations with hands-on exercises using turtle models, specialized equipment, and computer-based applications, ensuring effective learning and practical application.

Recognizing Amethi and Sultanpur as active clandestine turtle trade hubs requiring strengthened patrolling and enforcement, a focused divisional training was organized on 20 December 2024 at the Musafirkhana Forest Guest House for the Amethi Forest Division. The programme was attended by 35 frontline staff, including Range Officers, Foresters, and Forest Guards, who were trained in species identification, triage, and relevant provisions of the Wildlife Protection Act. The training was graced by Mr. Ranveer Mishra, IFS, Divisional Forest Officer, Amethi, as Chief Guest, underscoring the department's commitment to addressing wildlife crime in high-risk areas.Further strengthening enforcement capacity in another priority landscape, the Etawah–Mainpuri–Chambal region, identified as a turtle trade–sensitive zone, an intensive and meticulously structured training was conducted on 28 June 2025 at Etawah Safari Park.

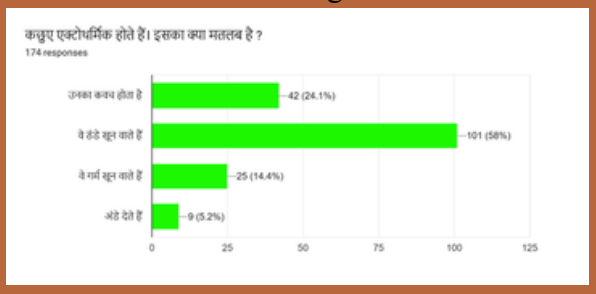


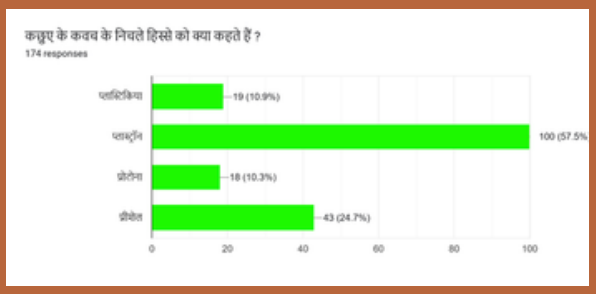
A total of 46 officers, including Sub-Divisional Forest Officers and Range Officers from six divisions (Etawah, Mainpuri, Agra, Kannauj, Etah, and National Chambal Sanctuary), participated. This comprehensive programme combined detailed presentations with practical, hands-on and table-top exercises, utilizing life-sized turtle models and specialized equipment to deepen technical understanding and field proficiency. The training was designed to ensure that participants could confidently apply the acquired knowledge in real-world enforcement, rescue, and prosecution scenarios.

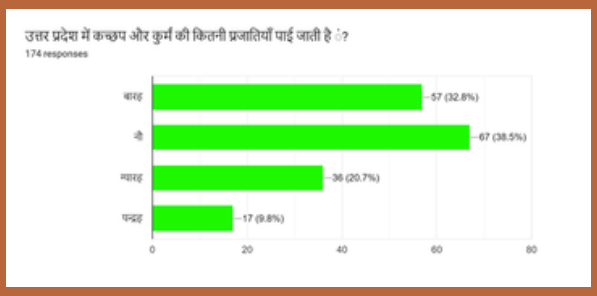
Additionally, on 6 October 2025, a specialized frontline training was conducted at the Tikri Forest Guest House campus for personnel of the Gonda Forest Division. The session focused on turtle species identification, basic triage techniques, and updates to the Wildlife (Protection) Act, 1972, with the objective of improving responses to turtle confiscation, rescue, and rehabilitation cases. The training followed a blended approach, integrating technical lectures with interactive, hands-on exercises. Considering the frequent field situations involving snakes, dedicated modules on safe handling and rescue of snakes were also included to enhance overall field safety and response readiness. Collectively, these trainings have significantly strengthened the capacity of forest department personnel to identify, rescue, manage, and legally address turtle trade thereby contributing to improved enforcement effectiveness.

During these training programmes, pre- and post-training evaluations were conducted using a set of standardized, fixed-response questions focusing on turtle identification, species nomenclature, ecology, and habitat requirements. The questionnaires were administered to participants at the beginning and again at the conclusion of the training to assess knowledge gain and evaluate the overall effectiveness of the programme. The post-training assessments demonstrated a marked improvement in participants' understanding across all thematic areas, with notably higher accuracy in species identification and enhanced awareness of turtle ecology and habitat requirements, indicating the effectiveness of the training in strengthening technical capacity and conservation knowledge among the staff.

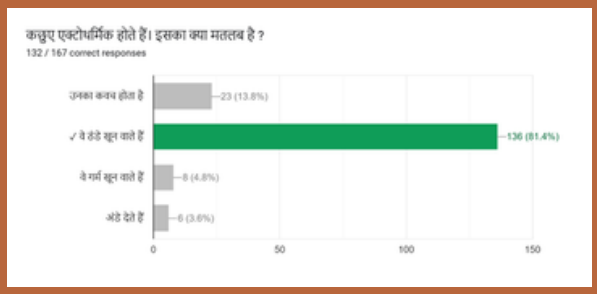
Pre Training Test

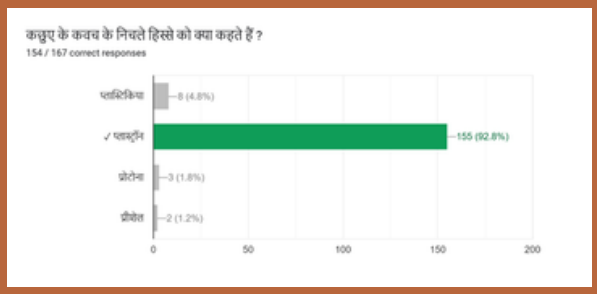


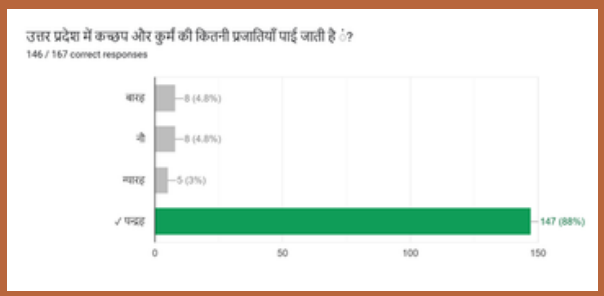




Post Training Test







Training of Veterinarians:

We identified veterinarians from districts with high turtle confiscation rates. The identification process involved an initial screening of government registration records, personal interactions, and follow-up meetings with Animal Husbandry Department. One day workshop on Aquatic Wildlife Rescue and Health Management was conducted at Nawab Wajid Ali Shah Zoological Garden, Lucknow, in collaboration with the Uttar Pradesh Forest Department and Department of Animal Husbandry, UP on 4 March 2025. The workshop trained 45 veterinary doctors from 19 identified districts and two wildlife divisions. Dr. Shiwani Tandel, Exotic and small animal veterinary expert from Mumbai, provided hands-on training in cardiology, pulmonary assessments, ultrasonography, necropsy and proper turtle handling techniques and health management. A total of 32 youth was trained in turtle identification, handling, ecology, habitat management and conservation issues through 7th and 8h edition of School in Aquatic Wildlife Biology and Conservation.

Awareness Workshop for Engaging the Hunting Community:

As part of the ongoing project interventions under NMCG, we conducted a series of awareness-cum-sensitization workshops across four identified wildlife trade–prone communities in Uttar Pradesh. These interventions were designed to understand community livelihoods, assess involvement in illegal freshwater turtle trade, and initiate structured engagement with local governance systems for long-term behavioral change. The PRI workshops were organized in collaboration with the respective Forest Divisions, Wildlife Crime Control Bureau and community members. The programs were conducted between April and October 2025, with broad participation from women, youth, and community representatives. A total of approximately 240 community members participated across four locations. These PRI workshops played a critical role in scoping of socio-economic conditions, income sources, and the degree of community involvement in illegal turtle trade for formulating a longterm solution. Furthermore, PRI platforms provided a structured mechanism to initiate dialogue, rebuild trust, and identify individuals and groups willing to transition away from illegal activities. Overall, the PRI interventions have laid a strong foundation for community engagement, enforcement coordination, and livelihood transition planning. These efforts contribute directly to the project's long-term objective of reducing illegal freshwater turtle trade by fostering sustainable, legal livelihood alternatives and strengthening community resilience through local governance structures.

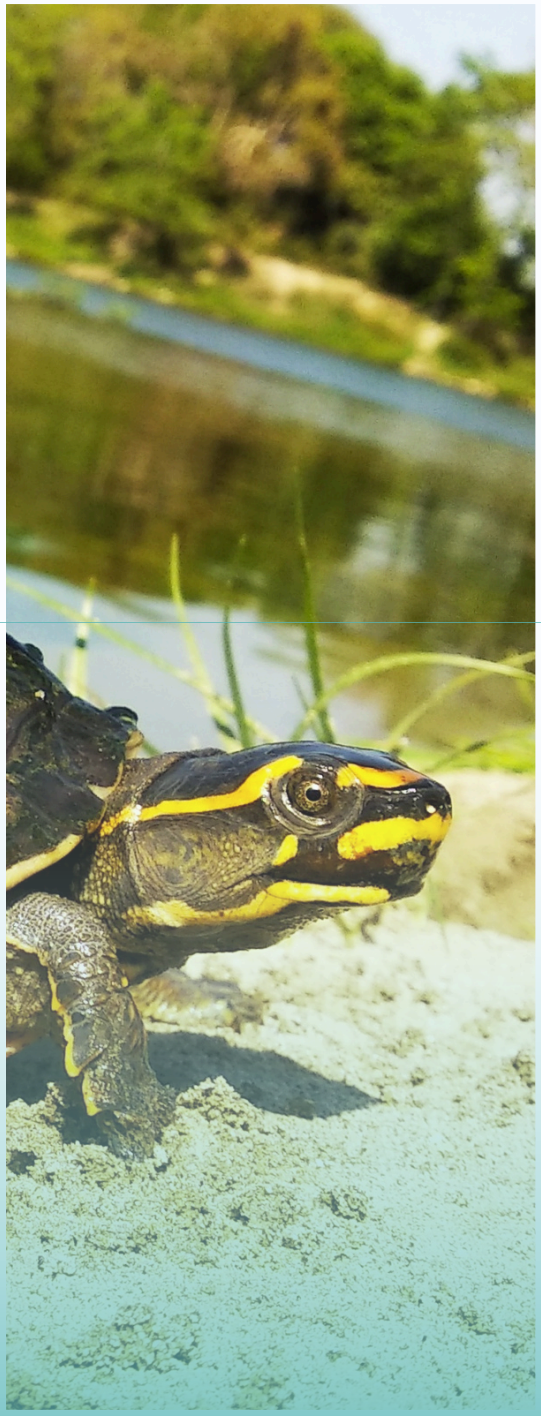
- Pakari village, Sultanpur – April 2025 (71 participants)
- Gandhinagar, Amethi – October 2025 (48 participants)
- Shukla Ganj, Unnao – October 2025 (50 participants)
- Karhal, Mainpuri – October 2025 (70 participants)

Skill Development Training:

As part of the project's livelihood and skill development component, Pakri village in Sultanpur district—identified as a trade-prone area—was selected as a model village for targeted intervention, and the skill development programme has been formally initiated. The village is primarily inhabited by the nomadic Kanjar community, which has faced long-standing social marginalisation, economic vulnerability, and limited access to education, formal employment, and government welfare schemes. Building on the outcomes of the PRI workshop conducted earlier under this project, focused efforts were made to engage women as key beneficiaries. A total of 70 women from the village received hands-on training in candle-making, covering basic production techniques, quality control, and packaging. To enable immediate adoption and income generation, essential raw materials were provided to all participants, ensuring a smooth transition from training to practice and supporting the establishment of a sustainable, community-based livelihood activity.

COMPONENT 2

Re-wilding of Three Threatened Turtle Species in Ganga Basin, Uttar Pradesh



2.1 Red-crowned Roofed Turtle (*Batagur Kachuga*) reintroduced in Ganga River

Namami Gange supported turtle survey in Upper Gangqa stretch confirmed extirpation/local extinction of Red-crowned Roofed Turtle in October 2021. The project team in close association of Uttar Pradesh Forest Department conducted pilot-reintroduction of 20 captive-bred, Red-crowned Roofed Turtle (*Batagur kachuga*) into Upper Ganga completed at Haiderpur wetland complex (HWC) on 26.04.2025. This is the first monitored re-wilding of the *B. kachuga* in its historic range after three decades. After careful consideration and number of deliberations with experts, it was decided to conduct a pilot reintroduction of this species along HWC. HWC currently afford high level of protection due to the status of Ramsar site and being located at the tip of Hastinapur Wildlife Sanctuary. A high number of migratory and resident birds, gharial, Gangetic Dolphin and fishes are seen along this stretch, mainly due to long-term comprehensive habitat restoration program under Namami Gange and patrolling and protection of riverine resources by the dedicated teams of Uttar Pradesh Forest & Wildlife Department. It was assumed that long dispersal down- stream can still afford the turtle protection from the Hastinapur Wildlife Sanctuary and Narora Ramsar site.

Based on the detailed health assessment by in house veterinarian, Dr. Ashish Singh, twenty *B. kachuga* (10 female ; 10 male) were selected. The morphometric measurements of each selected individual including straight carapace length (SCL), straight carapace width (SCW), plastron length (PL), and weight were taken (Table 1). Healthy individuals were fitted with the Sonotronics® sonic transmitter model no. CT-82-2 (diameter 15.6 mm, Length 54 mm and weight 9.5 gm) with individual frequency having approximately 14-20 months battery life.

These transmitters were attached on right-side marginal scute as an extended out growth in such a way that transmitter protruded out of their body surface. We attached transmitters on the caudal scute on the posterior end in such a way that transmitter will not protrude from the outer body rim and does not hinder the animal's movement and courtship. Transmitters were fixed on the marginal scute with the screw by drilling one 3 mm diameter holes on the carapace using a handheld drill and attached using nut and bolts. A solid epoxy resin was used to encapsulate the transmitter to close up any further space between the carapace and the transmitter, which might otherwise snag either on vegetation or fishing nets.

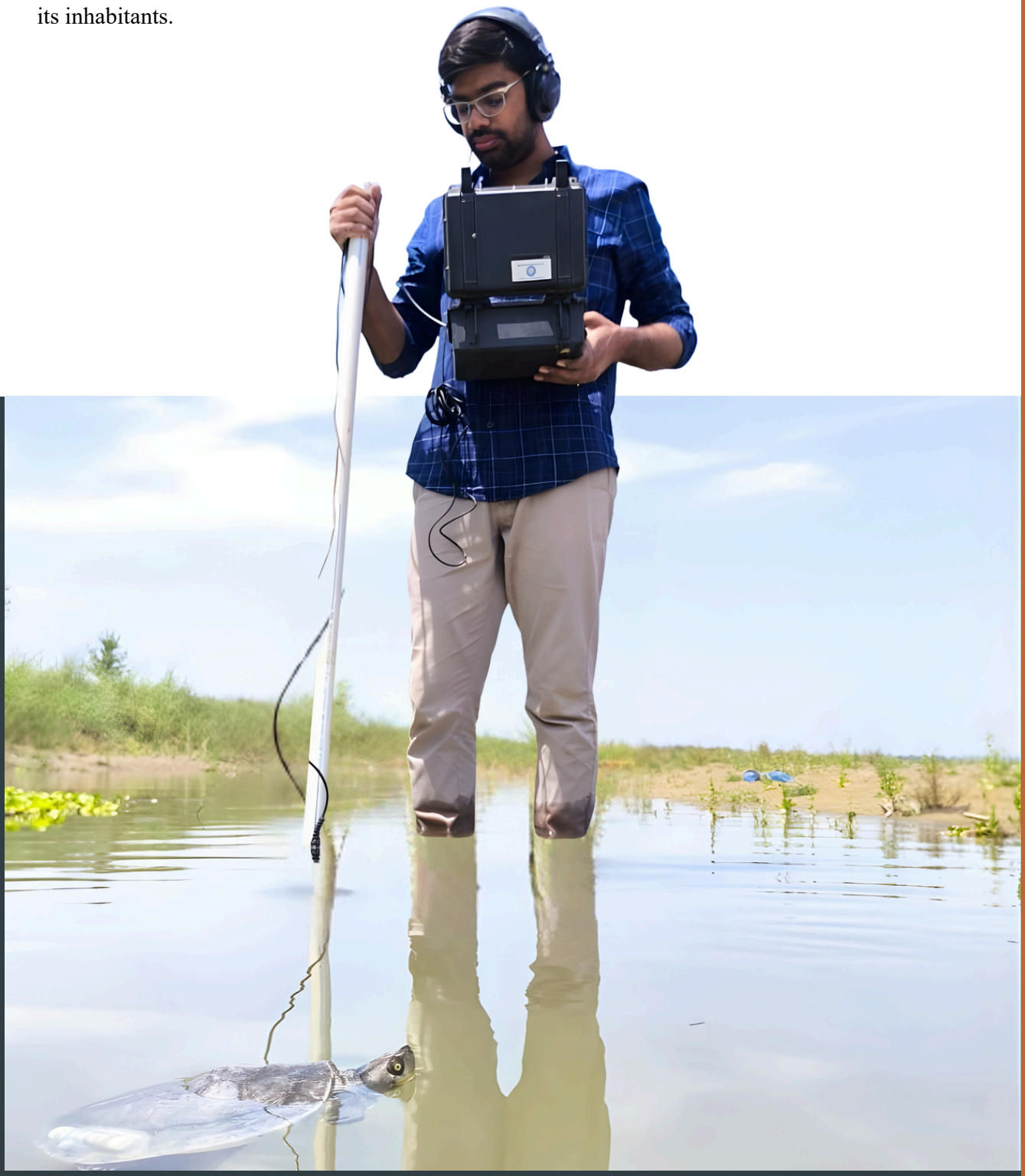
Transportation- Tagged turtles were carefully translocated using a mechanised vehicle from Garaita Turtle Conservation Centre, NCS UP to HWC on April 26, 2025. Turtle were not fed 24 hours prior to transport and packed in padded plastic vegetable crates and covered with wet gunnysacks for safe translocations under care of forest department staff, wildlife veterinarians/ biologist. A plastic crate of size 3x2 feet used during the translocation with base of dry sponge to keep turtle moist. In the transition turtle were regularly checked and water was sprinkled.

Table 1: Morphometric data and transmitter/tag ID details of tagged individuals.								
Sl. No.	**Frequency (kHz)**	**Scute Marking**	**Sex**	**SCL (cm)**	**SCW (cm)**	**PL (cm)**	**Height (cm)**	**Weight (kg)**
1	71	8R	M	19.7	16.5	17.8	8	1.272
2	78	1R	F	20.4	17.5	18.7	9.1	1.464
3	70	2R	F	20.6	17.4	19.6	7.9	1.45
4	73	3R	M	20.2	19.7	18.5	8.1	1.298
5	70	4R	F	19.5	16.6	17.5	7.9	1.194
6	81	5R	F	19.6	16.7	18	8.2	1.192
7	69	6R	F	19	16.5	18.1	8.9	1.218
8	75	5L	F	18.6	15.6	17.2	8.4	1.106
9	71	6L	M	19	15.8	17.4	7.5	1.08
10	82	7L	M	18	16.2	17	8.4	1.117
11	69	8L	F	18.4	16	17.8	7.6	1.18
12	72	4R5R	M	17.8	15.7	16.8	7.9	1.05
13	83	4R6R	M	18.2	16.3	16.8	8.5	1.086
14	74	4R4L	F	17.7	15.7	16.5	8	1.01
15	75	4R5L	M	18.2	15.6	16.6	8.2	1.06
16	73	7R	M	19.2	16.5	18.2	8.2	1.19
17	80	1L	F	19.5	16.8	18.6	8.6	1.364
18	79	2L	M	18.5	16	17.3	7.6	1.122
19	72	3L	M	19.7	16.4	18.2	7.9	1.158
20	77	4L	F	19.6	16.2	18.4	8.2	1.142

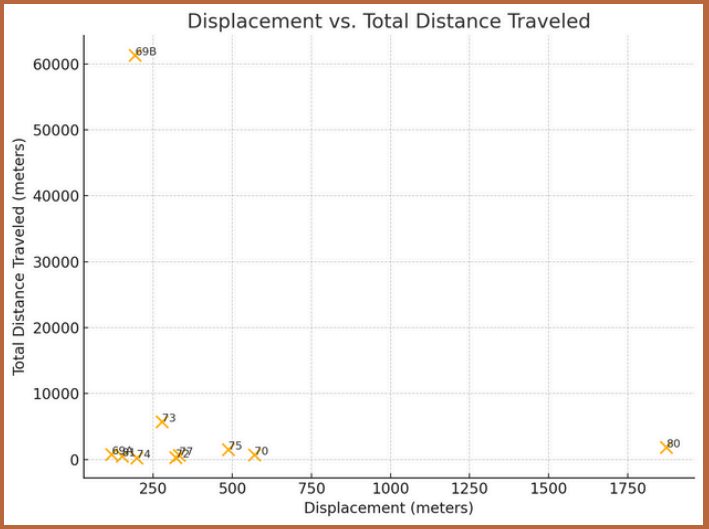
Release - Cohort was sub-divided into two sub-groups, one group was released up- stream barrage within Haiderpur Wetland (soft-release) while one group was release down-stream directly in the main channel of Ganga (hard-release) to compare the results. Release was conducted under the close supervision of Chief Conservator of Forests, Western and in presence of Divisional Forest Officer Muzaffarnagar/ Meerut in presence of local community members, children and frontline forest department staff on 26 April 2025. Haiderpur wetland fully connect with main channel in the beginning of monsoon, which will allow the turtles to choose and disperse alongside their acclimatization.

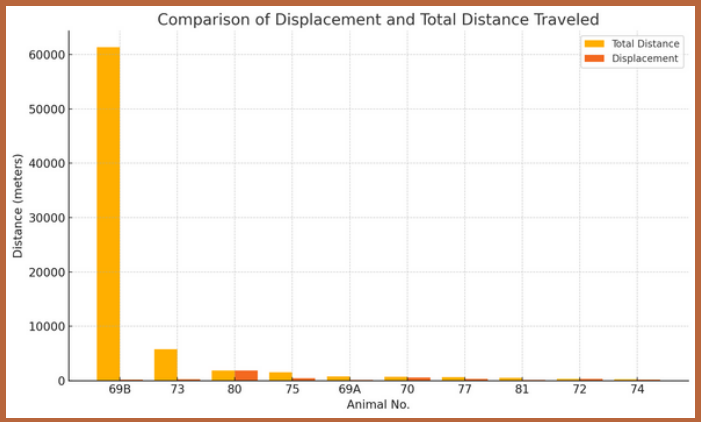
This is the first ever reintroduction of this species, and monitored release of any freshwater turtle species in Ganga. This soft Vs hard release strategy and next two years monitoring using sonar-based devices by a joint project team will help to understand the long-term strategy to bring this species back on Ganga.

Monitoring - A dedicated monitoring team has been stationed at Haiderpur Wetland Complex to monitor and track the release individuals for next two years. Since release turtles are being tracked using handheld and submersible-stationed devices for their dispersal and survival. The data collected will provide invaluable insights into the movement patterns and habitat preferences of these turtles, aiding in the development of effective conservation strategies. Researchers are particularly interested in understanding how environmental changes impact their behavior and survival rates. In addition to technological tracking. This holistic approach ensures that any potential threats can be identified and mitigated promptly, promoting a thriving ecosystem for all its inhabitants.



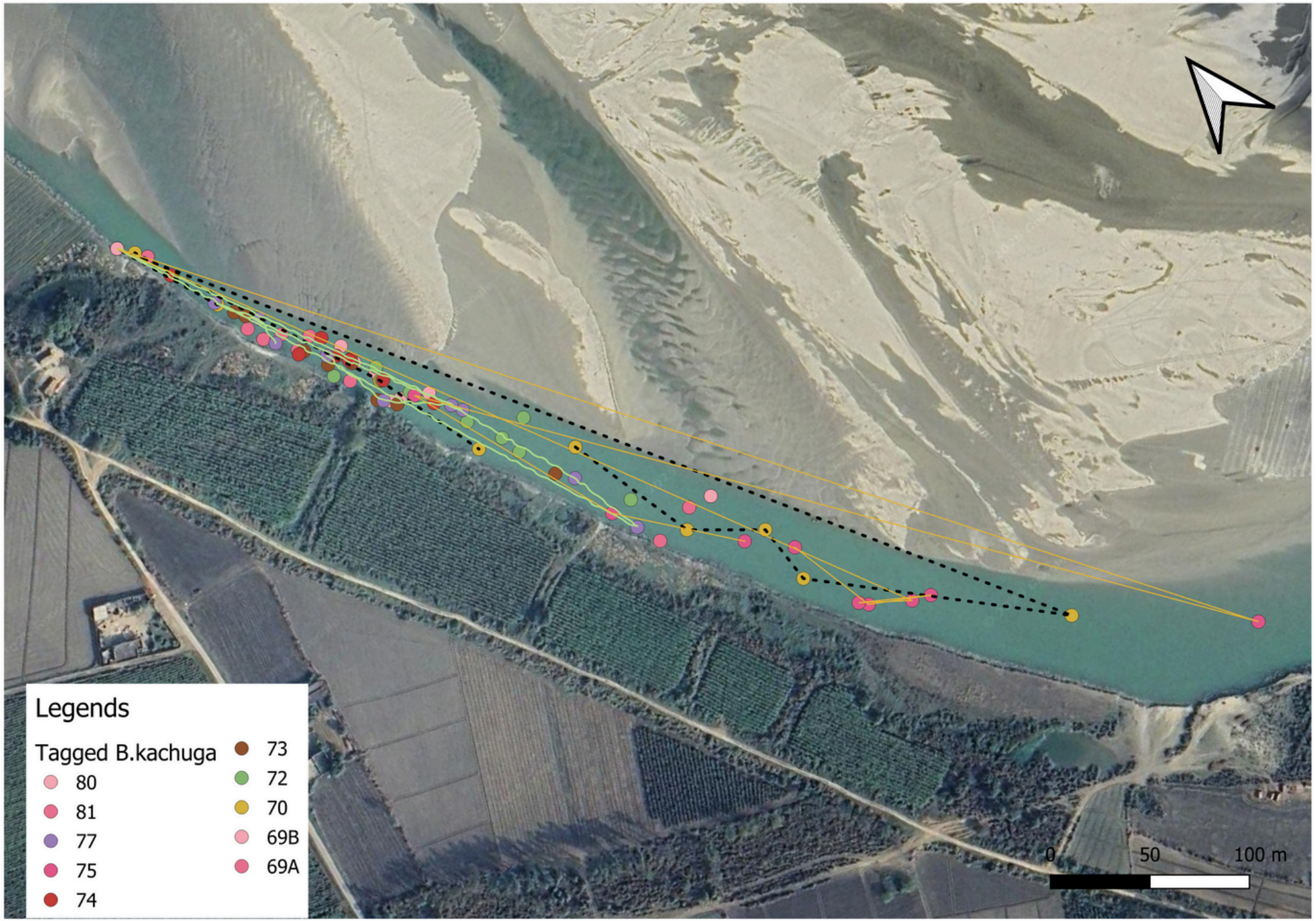
Tracking till date shows the 50% survival from both soft as well hard released individuals. The soft-released individuals are in the wetland while the hard-released individuals dispersed about 80 km downstream. The visualizations illustrate the movement behavior of individual turtles: Scatter Plot shows the relationship between dispersal and total distance traveled. Points far from the diagonal line indicate movement paths (i.e., high travel but low net dispersal). The blue bars represent total distance traveled. The orange bars show straight-line dispersal. Notably, individual 69B traveled a very long total distance (~61 km) but had moderate dispersal (~193 m), suggesting local area use or looping movements. Preliminary dispersal map attached below.



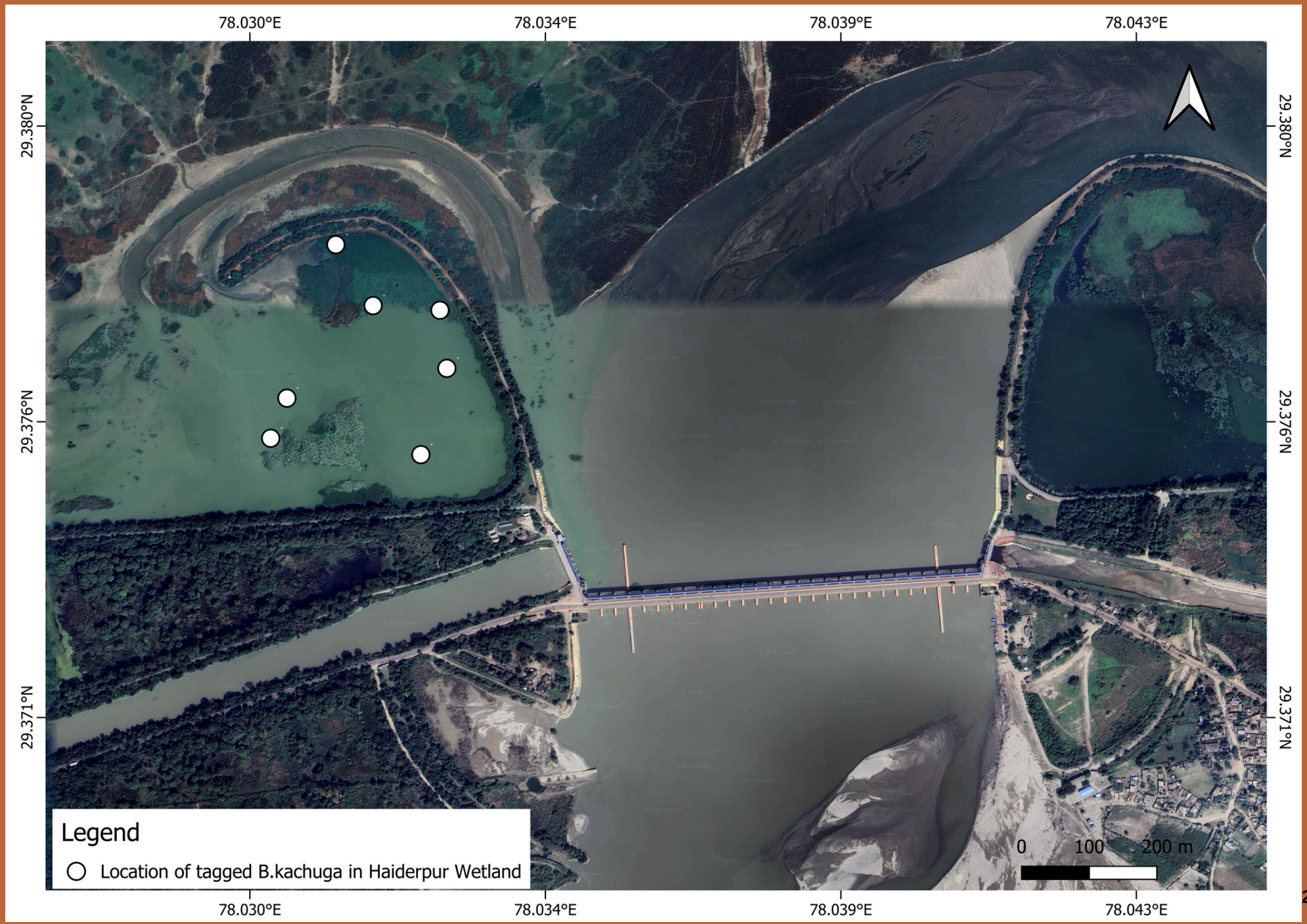


Following the release of turtles' sites along the Upper Ganges, a targeted capacity-building sessions were organized specifically for the Muzaffarnagar Forest Division for 25 frontline staff. These sessions focused on equipping staff deployed along the turtle release stretch with the knowledge and tools needed for effective monitoring and conservation action. This phased training approach ensures that staff at key locations are well-prepared to support long-term monitoring, reporting, and protection of released turtles in critical habitats. The training focused on the rich diversity of freshwater turtles found across India, with particular emphasis on species inhabiting wetlands and riverine habitats along the Ganges key components of the training included species identification, proper handling techniques and digital monitoring tools for turtle reporting and monitoring.

Map showing the location of *B.kachuga* in Ganga Main Channel (pre-monsoon)



Map showing the location of *B.kachuga* in Haiderpur Wetland Complex (post monsoon)



2.2 Narrow Headed Softshell Turtle (*Chitra indica)* re-wilded in Yamuna river

To understand survival and habitat utilization, 15 captive-raised subadult Narrow-headed Softshell Turtles (*Chitra indica*) from the Kukrail Gharial Rehabilitation Centre, Lucknow, were released into the Middle Yamuna River under the Agra jurisdiction with the support of the Uttar Pradesh Forest Department Moreover, to enhance our understanding of post-release survival, we procured 10 very high-frequency (VHF) tags (Wildlife Materials), specifically customized for softshell turtles. Out of the 15 released turtles, 10 individuals (five males and five females) were fitted with VHF transmitters,

Individual Identification & Morphometrics

Prior to transmitter deployment, release cohort was marked using toe clipping for individual identification. Each turtle was weighed using a digital scale to obtain accurate body mass measurements. Morphometric data, including Straight Carapace Length (SCL), Straight Carapace Width (SCW), and Straight Plastron Length (SPL), were recorded using a Haglöf Tree Caliper. Individuals exhibiting the greatest body mass and carapace length were selected for transmitter attachment, ensuring optimal suitability for carrying the device without compromising natural behavior or welfare. he released turtles had an average weight of 6.78 kg (range: 3.92–9.9 kg) and an average straight carapace length of 39.47 cm (range: 24.3–44.9 cm)

Morphometrics measurements of tagged *C.indica*

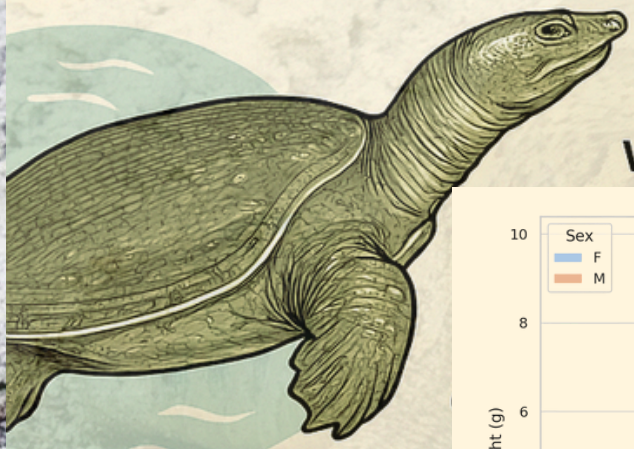
Turtle ID	Sex	Weight (kg)	Toe Clip Tag	PIT Tag No.	Carapace Length (mm)	Carapace Width (mm)	Plastron Length (mm)	Height (mm)	Frequency (MHz)
A	F	4.800	1152	982000410838933	33.4	28.9	29.4	8.1	151.036
B	M	5.560	188	TR0007248945	37.8	30.9	29.8	8.5	151.296
C	M	4.755	1174	982000410839023	34.5	30.4	28.6	8.6	151.366
D	F	5.250	1173	900118001375944	37.6	30.8	30.6	8.4	151.016
E	M	6.855	1172	900118001317187	39.3	33.4	33.7	8.4	151.345
F	M	3.925	1159	982000410838946	34.3	27.6	27.3	7.3	151.977
G	F	8.215	1160	TR000724400D5	42	35.5	32.3	9.2	151.247
H	F	9.000	1161	TR0007248735	45.2	37.8	33.7	10.1	151.176
I	M	9.765	1162	7R0007249B59	45.7	37.8	34.1	9.6	151.264
J	F	9.900	1169	TR000724402A	44.9	37.6	38.4	10	151.436

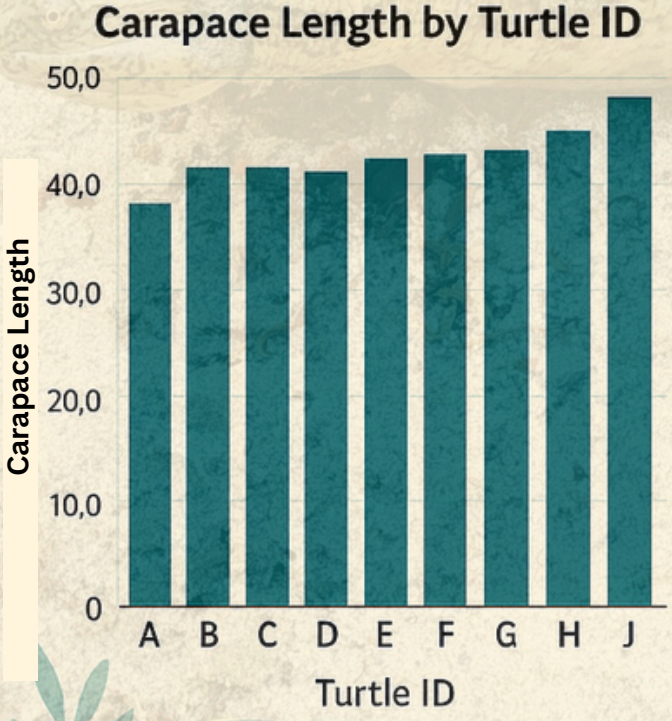
Mounting of VHF Transmitters on *Chitra indica*

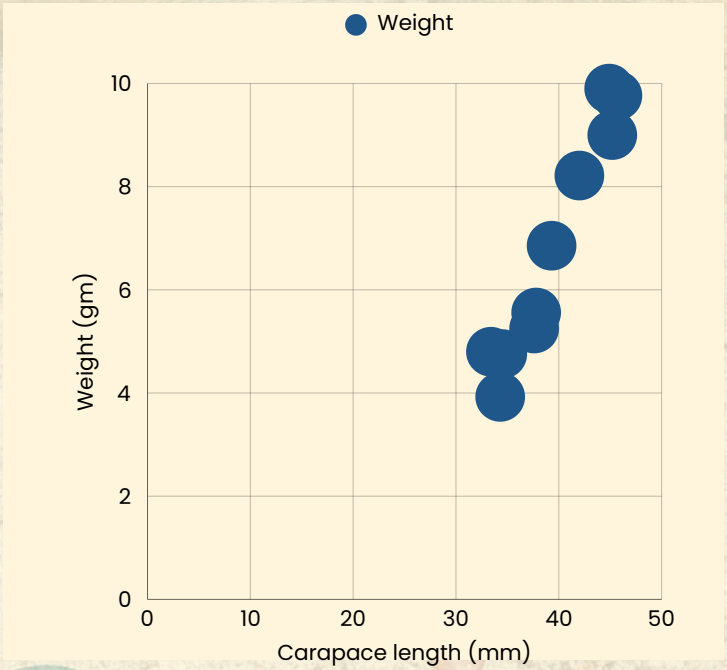
Very High Frequency (VHF) transmitters were carefully mounted on selected individuals of *Chitra indica* following standardized protocols to minimize any potential impact on the animal's health, mobility, or natural behavior. Each transmitter unit, including screws and associated mounting materials, was assessed to ensure the total weight did not exceed 5% of the turtle's body mass—an established guideline for safe tagging in chelonians. Prior to attachment, the dorsal surface of the carapace was thoroughly cleaned and air-dried to maximize adhesion. Two small pilot holes were drilled into the peripheral regions of the carapace. The VHF transmitter was then secured using a custom-fitted plastic base and stainless-steel screws to ensure firm anchorage. To enhance durability and waterproofing, a marine-grade epoxy resin was applied over the screw heads and contact points. The VHF tags, including screws and fixing material, weighed 65 g. Following attachment, all tagged individuals were closely monitored for post-procedure behavior, mobility, and tag stability. The entire process was conducted by experienced personnel under the supervision of a qualified wildlife veterinarian, in accordance with ethical wildlife handling protocols.

Chitra indica released with VHF Transmitters in Yamuna River

Frequency: 151,016-151,977 MHz



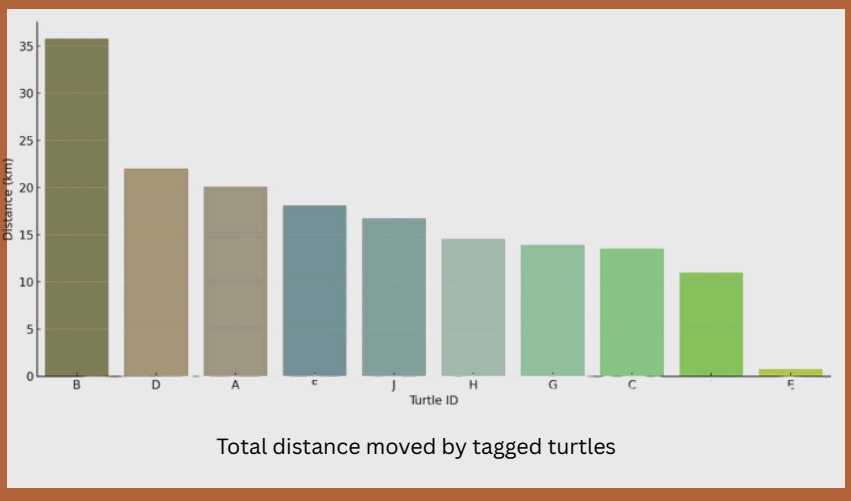




Turtle Release and Tracking

The tagged turtles were released into the Middle Yamuna River under the Agra jurisdiction with the support of the Uttar Pradesh Forest Department in presence of Mr. Sanjay Srivastava, PCCF(Wildlife), Uttar Pradesh Mr. Anil Patel. IFS, CF Agra and Mrs. Chadani Singh, DCF, NCS. Following release, the turtles were tracked for a period of three months using VHF radio telemetry. A handheld receiver with a three-element folding Yagi antenna (Wildlife Materials Inc.) was employed to triangulate positions and record the movement of tagged individuals. Data were collected at regular intervals and included GPS coordinates, date, and time of detection.

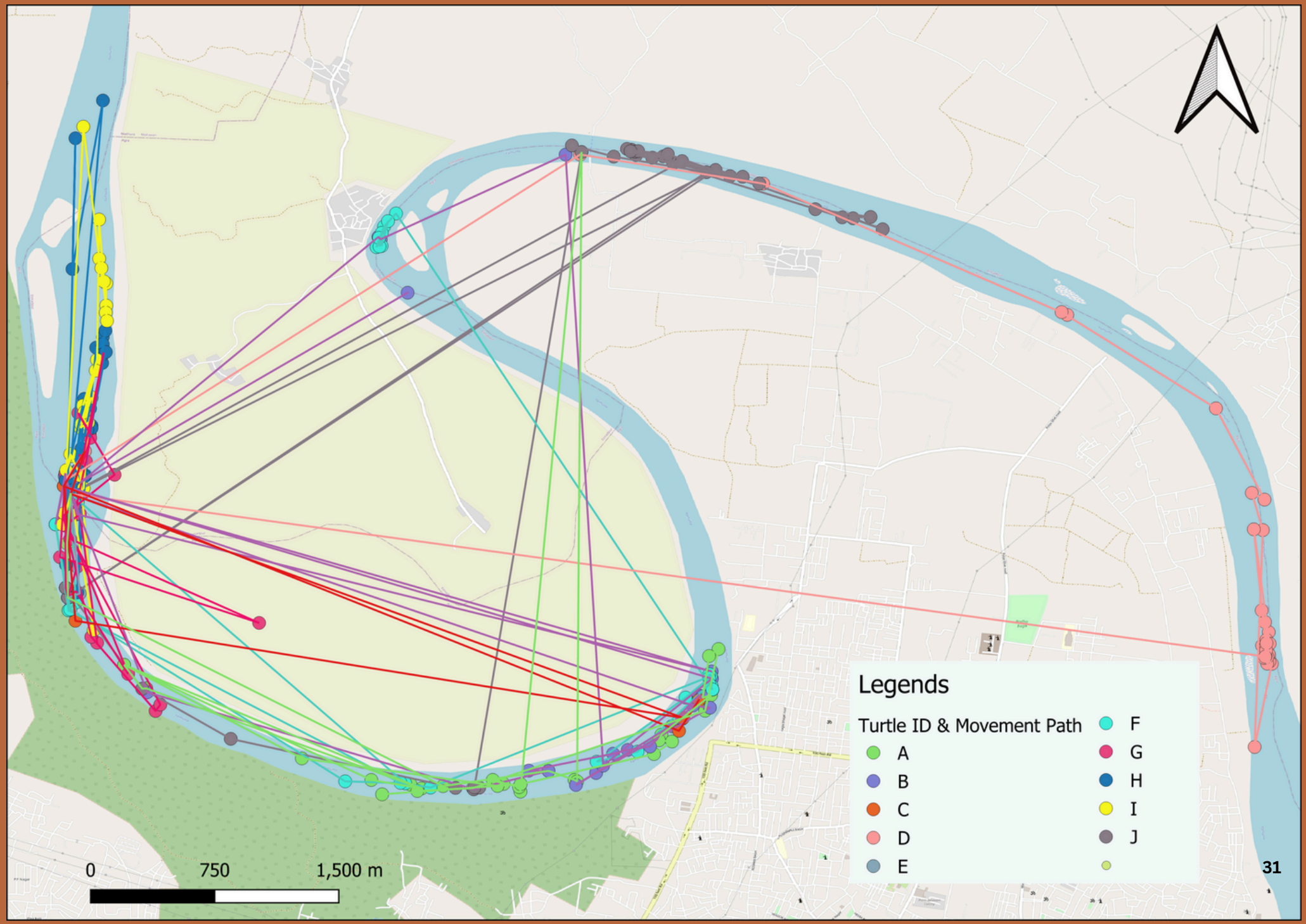
A total of ten turtles were tracked (IDs A to J), and movement distances were computed using geodesic calculations based on sequential GPS fixes. The results revealed substantial variation in spatial behavior among individuals. Turtle B exhibited the greatest displacement, covering a cumulative linear distance of approximately 35.76 km, while Turtle E showed minimal movement, traveling just 0.75 km. The average movement across all tracked individuals was approximately 18.23 km between December 2024-November 2025 tracking period. The recorded movements highlight significant dispersal potential in some individuals, suggesting exploratory behavior, while others demonstrated a high degree of site fidelity. Habitat utilization was particularly concentrated around mid-channel sandbanks and vegetated river margins, indicating potential critical microhabitats for foraging and thermo-regulation.



Total distance moved by tagged turtles

Notable inter-individual variation was observed in post-release dispersal patterns, with turtles occupying river stretches extending up to 40 km from their release sites. Fully grown adults with body lengths exceeding 45 cm exhibited significantly greater dispersal distances, both upstream and downstream, compared to smaller individuals. For instance, Turtle ID-J was recorded to have moved approximately 15 km upstream from the release location. During the peak summer period, turtles displayed pronounced nocturnal activity, with movement rates markedly higher at night than during daytime hours. Spatial use was primarily concentrated around mid-channel sandbanks and densely vegetated river margins. These habitats likely represent critical microhabitats, providing key resources for foraging, refuge, and thermoregulation essential for physiological regulation and survival. Overall, this study offers important insights into the spatial ecology, activity patterns, and habitat preferences of *C. indica* within its natural riverine environment.

Map showing the location of *Chitra indica* in middle Yamuna river



2.3. Crowned River Turtle (*Hardella thurjii)* released in Sarju river

In November, a total of 60 captive reared Crowned River Turtles (*Hardella thurjii*) were released at Katra Ghat (Gonda District) along Sarju River. The release cohorts consisted 33 sub-adult males and 22 females and 5 juveniles ranging from 2015-18. Average weight of males were 0.350kg (Average Carapace Length- 13.3cm) and females with weight 0.620kg (Average Carapace length- 15.17cm). This species exhibits a unique nesting ecology and is the only turtle in India that considered to nests under water. The released turtles were tagged with visual tags and will be monitored through a Capture-Mark-Recapture (CMR) study to assess their survival in the river. The release took place in the presence of the District Magistrate of Gonda district, Mrs. Neha Sharma, IAS and the Divisional Forest Officer of Gonda, Mr. Pankaj Shukla, IFS.

Weight (kg): ≈ 0.416 kg
Carapace Length (cm): ≈ 0.177 cm
Carapace Width (cm): ≈ 0.203 cm
Plastron Length (cm): ≈ 0.170 cm
Height (cm): ≈ 0.428 cm

Morphometric measurements and identification code of *Hardella thurjii* released in Sarju for survival study.

S.No.	Species	Sex	Weight (kg)	Notching code	Toe Clip Code	Carapace Length (cm)	Carapace Width (cm)	Plastron Length (cm)	Height (cm)
1	Ht	JM	0.450	6L	1102	0.140	0.104	0.140	0.65
2	Ht	JM	0.440	7R6L	1103	0.143	0.104	0.137	0.67
3	Ht	JM	0.380	7R7L	1104	0.140	0.106	0.135	0.65
4	Ht	JM	0.515	6R5L	1105	0.147	0.114	0.136	0.73
5	Ht	JM	0.530	4R	1106	0.155	0.115	0.143	0.70
6	Ht	JF	1.260	6R	1107	0.206	0.150	0.190	0.93
7	Ht	JF	0.505	1R6R6L	1108	0.150	0.114	0.141	0.70
8	Ht	JF	0.102	5R6R4L	1109	0.187	0.143	0.181	0.92
9	Ht	JF	0.890	6L	1110	0.180	0.133	0.176	0.83
10	Ht	JF	0.105	5R6R7L	1111	0.189	0.139	0.185	0.93
11	Ht	JF	0.600	6R7L	1112	0.158	0.116	0.150	0.75
12	Ht	JF	0.920	5R	1113	0.184	0.133	0.176	0.87
13	Ht	JF	0.820	7R7L	1114	0.180	0.130	0.177	0.83
14	Ht	JF	0.126	4R7R7L	1115	0.205	0.149	0.198	0.95
16	Ht	JM	0.260	2R	1116	0.121	0.900	0.115	0.57
17	Ht	JM	0.315	1L	1117	0.13	0.910	0.120	0.60
18	Ht	JF	0.575	2L	1118	0.155	0.117	0.158	0.69
19	Ht	JF	0.510	6L	1119	0.154	0.114	0.145	0.70
20	Ht	JF	0.315	4R5R74	1120	0.130	0.970	0.125	0.60
21	Ht	JF	0.540	4R4L	1121	0.154	0.115	0.144	0.7
22	Ht	JF	0.410	4L6L	1122	0.140	0.105	0.137	0.69
23	Ht	JF	0.420	4R3L	1123	0.139	0.105	0.136	0.68
24	Ht	JM	0.345	4R4L	1124	0.137	0.100	0.125	0.64
25	Ht	JF	0.335	4L7L	1125	0.131	0.950	0.126	0.62
26	Ht	JM	0.445	1R1L2L	1126	0.148	0.107	0.136	0.69
27	Ht	JM	0.235	4R5L	1127	0.125	0.560	0.116	0.84
28	Ht	J	0.250	1R5R1L4L	1128	0.115	0.880	0.110	0.59
29	Ht	JF	0.230	4R8L	1129	0.115	0.850	0.111	0.61
30	Ht	F	0.750	1R4R7L	1130	0.178	0.130	0.169	0.80
31	Ht	J	0.210	1R5R4L	1131	0.106	0.800	0.103	0.55
32	Ht	F	0.550	1R4L5L7L	1132	0.152	0.115	0.148	0.70
33	Ht	M	0.265	1R4R5R1L	1133	0.116	0.850	0.114	0.59
34	Ht	J	0.170	8R	1134	0.104	0.760	0.100	0.48
35	Ht	M	0.420	1R5R4L6L	1135	0.147	0.108	0.140	0.64
36	Ht	M	0.335	1R1L4L5L	1136	0.137	0.970	0.129	0.66
37	Ht	F	0.265	1R6R1L3L	1137	0.118	0.870	0.115	0.6
38	Ht	F	0.235	No Natch	1138	0.115	0.890	0.107	0.54
39	Ht	M	0.330	1R1L2L7L	1139	0.130	0.980	0.124	0.59
40	Ht	M	0.245	No Natch	1140	0.116	0.85	0.104	0.55
41	Ht	M	0.250	1R4R 2L	1141	0.122	0.9	0.114	0.56
42	Ht	M	0.315	2R4L7L	1142	0.132	0.97	0.124	0.57
43	Ht	F	0.290	4R	1143	0.124	0.9	0.120	0.56
44	Ht	M	0.330	1R5L7L	1144	0.130	0.95	0.120	0.63
45	Ht	JM	0.330	4R6R3L	1145	0.129	0.99	0.122	0.57
46	Ht	F	0.280	6R1L	1146	0.119	0.88	0.114	0.58
47	Ht	M	0.265	4R6R	1147	0.118	0.900	0.115	0.54
48	Ht	J	0.175	4R7R	1148	0.102	0.770	0.10	0.51
49	Ht	M	0.800	1R2R7R	-	164	116	147	75
50	Ht	M	0.341	1R2R8R	-	131	96	123	61
51	Ht	M	0.280	1R7R	-	284	198	270	125
52	Ht	M	0.280	1R2R5R	-	291	198	271	125
53	Ht	M	0.340	1R2R7R	-	285	165	268	123
54	Ht	M	1.000	1R2R8R	-	457	308	415	175
55	Ht	M	0.780	1R3R8R	-	410	256	387	157
56	Ht	M	0.550	1R2R6L	-	160	143	151	112
57	Ht	M	0.310	1R7R	-	273	189	265	116
58	Ht	M	0.310	1R7R	-	273	116	189	26.5
59	Ht	M	0.210	1R2L	-	254	158	227	104
60	Ht	M	0.320	1R3L	-	335	202	282	125

A total of 10 individuals of Crowned River Turtle 5 Male and 5 Female were fitted with the Sonotronics® sonic transmitter model no. CT-82-2 (diameter 15.6 mm, Length 54 mm and weight 9.5 gm) with individual frequency having approximately 14-20 months battery life.

These transmitters were attached on right-side marginal scute as an extended out growth in such a way that transmitter protruded out of their body surface. We attached transmitters on the caudal scute on the posterior end in such a way that transmitter will not protrude from the outer body rim and does not hinder the animal's movement and courtship. Transmitters were fixed on the marginal scute with the screw by drilling one 3 mm diameter holes on the carapace using a handheld drill and attached using nut and bolts. A solid epoxy resin was used to encapsulate the transmitter to close up any further space between the carapace and the transmitter, which might otherwise snag either on vegetation or fishing nets.

Sl No.	Turtle Tag No.	Sex	Frequency	Sl No.	Turtle Tag No.	Sex	Frequency
1	9	F	77Khz	6	71	M	79Khz
2	73	F	81Khz	7	72	M	80Khz
3	11	F	79Khz	8	69	M	77Khz
4	75	F	83Khz	9	70	M	78Khz
5	10	F	78Khz	10	68	M	76Khz

Post-release movement and dispersal of the turtles were systematically monitored through active manual radio-telemetry using a hydrophone coupled with a MANTRACK receiver unit. Individuals were tracked at regular intervals to determine spatial use, movement direction, and dispersal patterns within the riverine system. Telemetry data revealed a consistent and ecologically meaningful movement trend, with turtles predominantly dispersing downstream from the release location, suggesting active habitat selection and alignment with river flow dynamics. Movement trajectories indicated sustained use of downstream river stretches rather than upstream exploration or localized residency near the release site. Cumulative tracking over the monitoring period documented a total dispersal distance of approximately 10 km, highlighting the species' capacity for post-release movement and spatial integration into the river system.

Map showing the location of *Hardella thurjii* in middle Sarju river

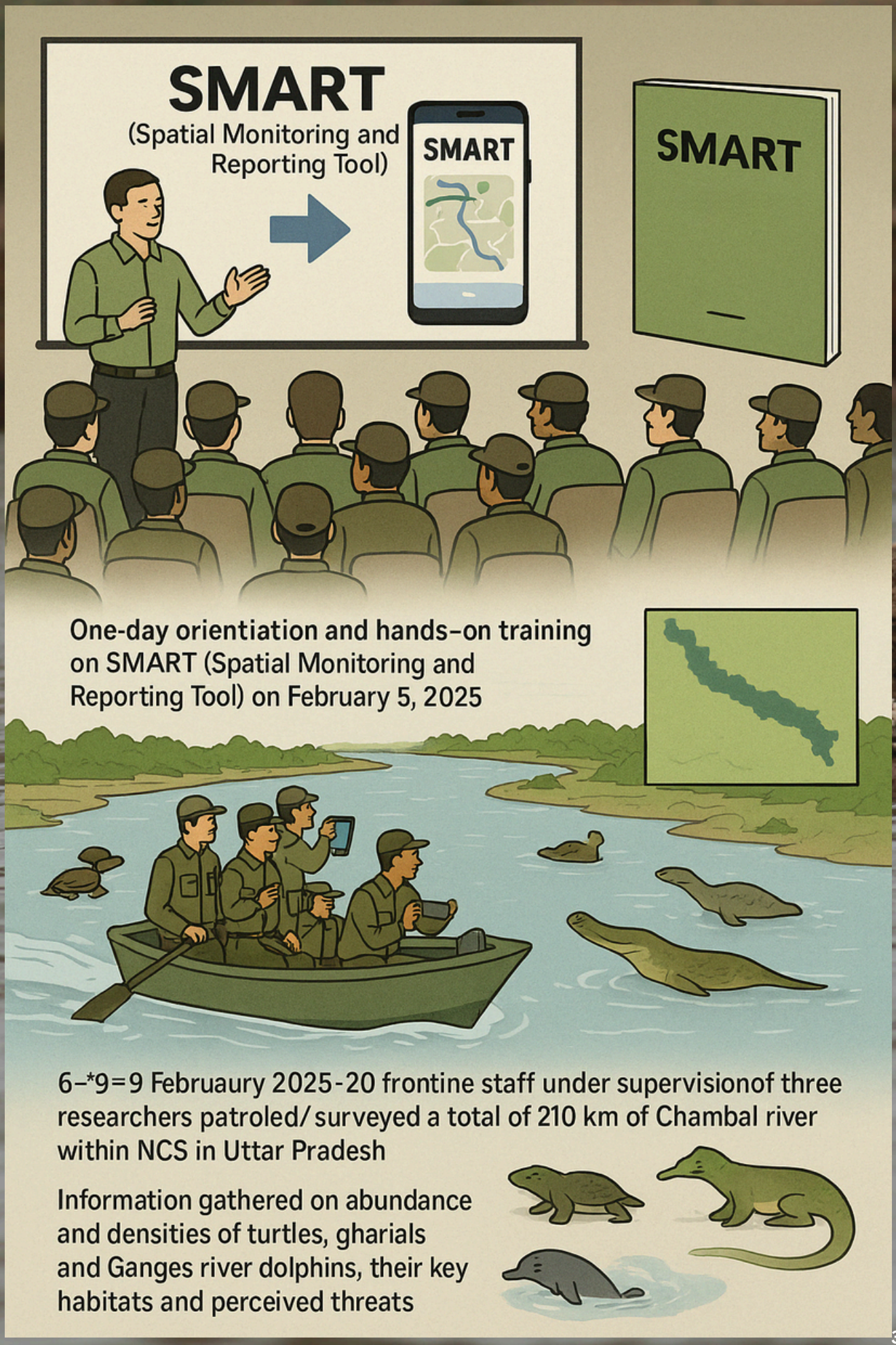
COMPONENT 3

Instituting Spatial Monitoring and Reporting Tool (SMART) based Riverine Patrolling alongside Recovery of Endangered Turtles in National Chambal Sanctuary, UP

PC Kunal Jain

3.1 Instituting SMART Patrolling in Lower Chambal to Strengthen the Monitoring and Patrolling Efforts of Frontline Forest Staff in NCS

On February 5, 2025, a one-day refresher and hands-on training for the SMART (Spatial Monitoring and Reporting Tool) application was held at the Nadagawan Nature Interpretation Centre. 23 Frontline forest staff members from the Bah and Etawah ranges of the National Chambal Sanctuary participated to improve their skills in collecting and recording wildlife data along the Chambal River. The session included a presentation on the tool's features and a hands-on exercise with the mobile application for real-time data collection. A Hindi-language manual was also provided to support local staff in effectively using the tool, enhancing monitoring and reporting for biodiversity conservation in the Chambal River ecosystem.

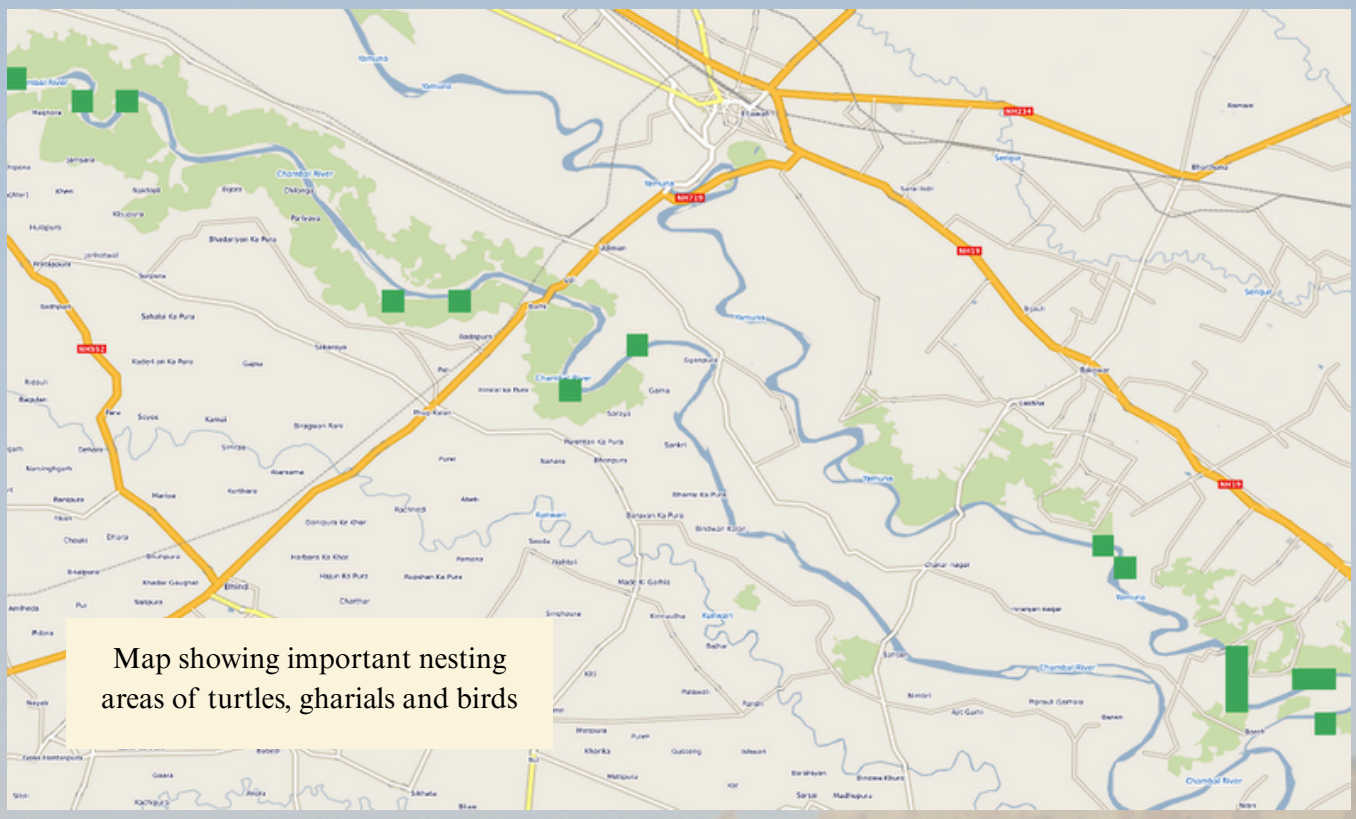


One-day orientiation and hands-on training on SMART (Spatial Monitoring and Reporting Tool) on February 5, 2025

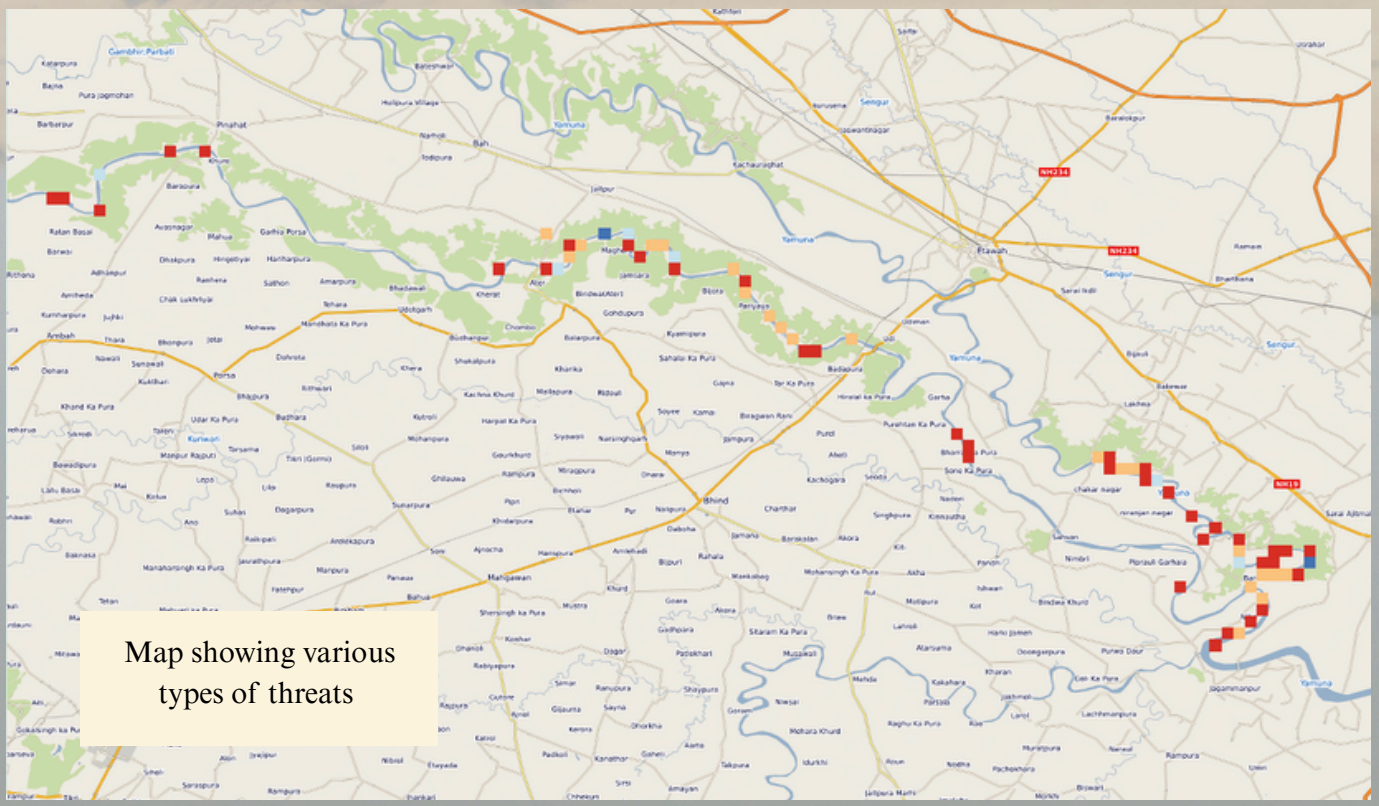
6–*9=9 Februaury 2025-20 frontine staff under supervisionof three researchers patroled/surveyed a total of 210 km of Chambal river within NCS in Uttar Pradesh

Information gathered on abundance and densities of turtles, gharials and Ganges river dolphins, their key habitats and perceived threats

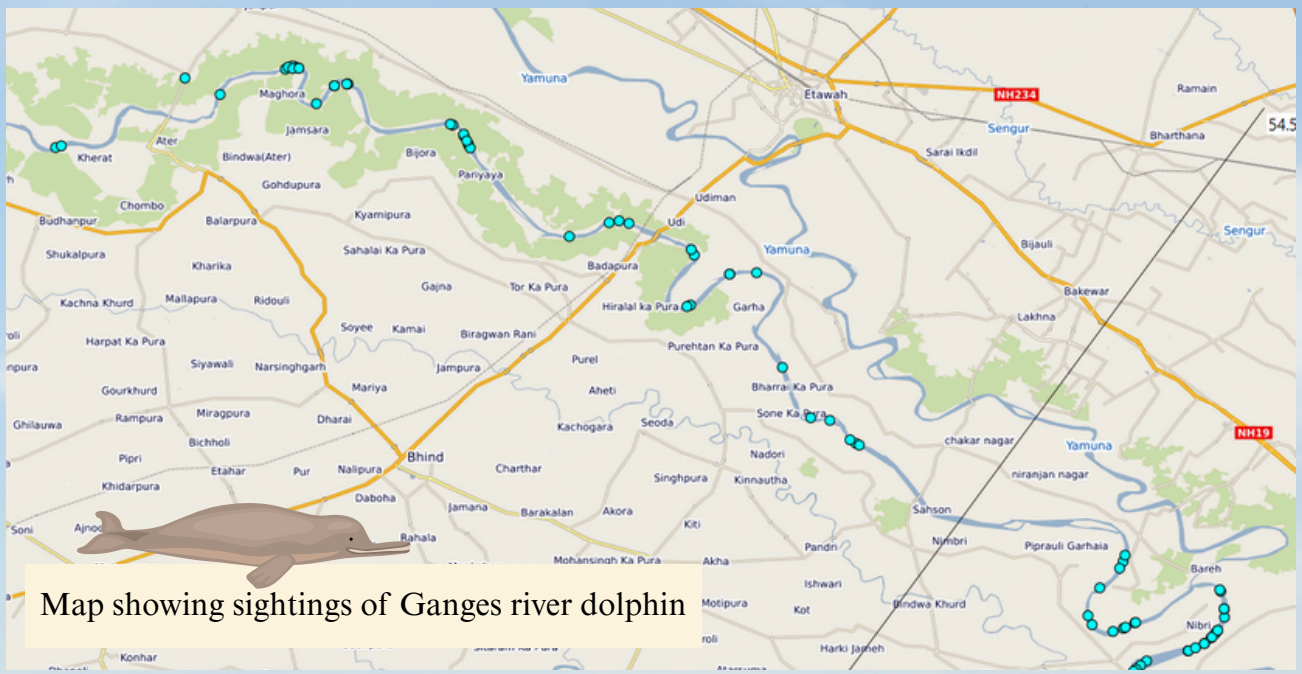
During the project period, 20 frontline staff under supervision of three researchers patrolled/ surveyed a total of 210 km of Chambal river within NCS in Uttar Pradesh from *Reha* to *Panchnada* villages using the SMART. Information gathered on abundance and densities of turtles, gharials and ganges river dolphins, their key habitats and perceived threats. A total of 12 Dolphins, 384 turtles representing *Batagur kachuga, Batagur dhongoka, Lissemys punctata & Pangshura tentoria* were sighted and 285 individuals of Gharials were sighted and 185 Muggers. A total of 17 important nesting areas of *Batagurs*, Gharials and skimmers were documented. Project team member Ms Sreeparna Dutta had presented about SMART monitoring in National Chambal River at Applied Conservation Technology Conference held at Hanoi, Vietnam from 4-7 November 2025. Additionally she have also completed a 4 day handson training on Advances of SMART organised by SMART Partnerships.



Map showing important nesting areas of turtles, gharials and birds

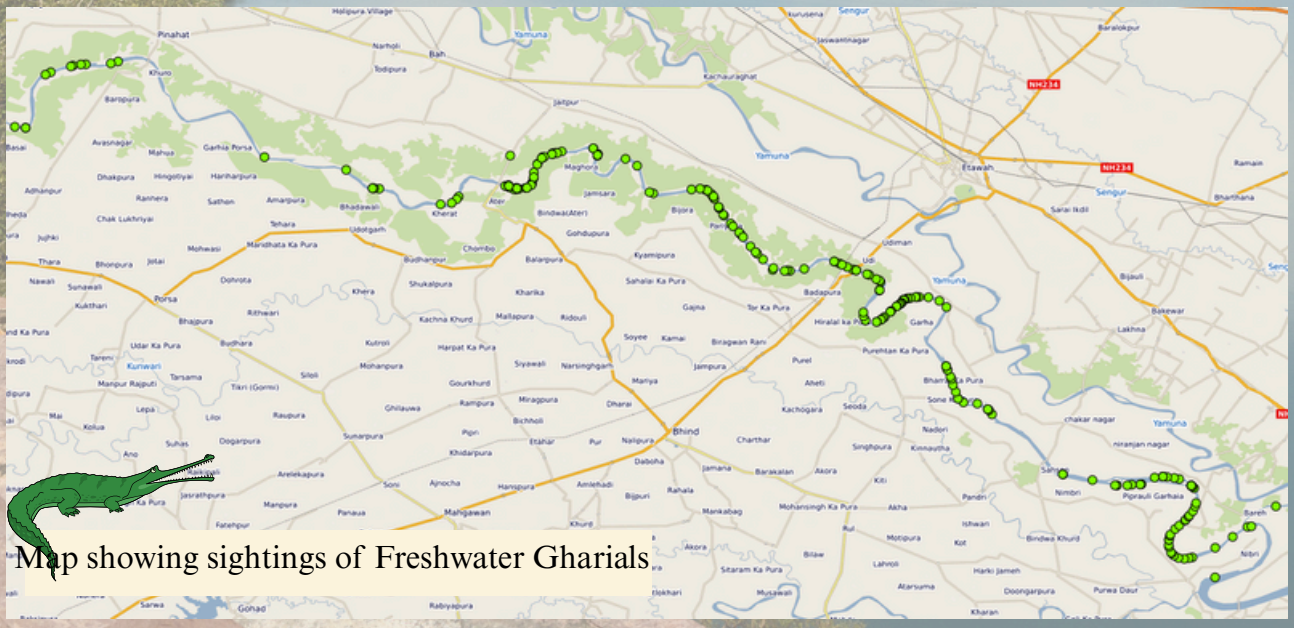


Map showing various types of threats



Map showing sightings of Ganges river dolphin

Map showing sightings of Freshwater Turtles



Map showing sightings of Freshwater Gharials

Development of SMART Patroling and Monitoring Station in NCS, UP

The previously partially developed structure at the Garaita Turtle Centre has been strengthened and upgraded into a fully functional SMART Lab/Workstation. The facility has been equipped with a dedicated desktop system installed with SMART monitoring software. This Lab will serve as a centralized hub for the routine collection, collation, monitoring, analysis, reporting, and digital logging of patrol data submitted by individual frontline staff of the National Chambal Sanctuary in the Lower Chambal stretch. In addition, the Lab will facilitate regular data validation, analytical reporting, and generation of GIS-based patrol and threat maps to support evidence-based protection planning and adaptive management.

3.2 Nest Protection and Head starting of Red Crowned Roofed (*Batagur kachuga)* turtle and Three Striped Roofed Turtle (*Batagur dhongoka)* to boost population recovery program

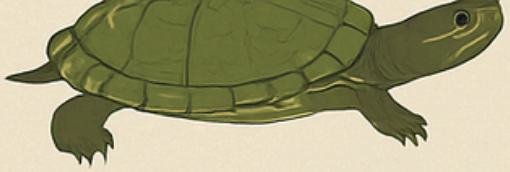
The nesting season for the Three-striped Roofed Turtle (*Batagur dhongoka*) and the Red-crowned Roofed Turtle (*Batagur kachuga*) occurs annually from February to April. We started monitoring the nesting habitats to set up the hatchery in February as part of SMART. To protect vulnerable nests from predation and human disturbances, a nest protection program was sustained through a riverside hatchery initiative along Chambal River. A dedicated patrolling team, led by an experienced biologist and trained field assistants, has been conducting systematic surveys in collaboration with forest department personnel, patrolling key river stretches on foot and by boat to identify critical nesting sites. To enhance conservation efforts, two temporary riverside hatcheries have been set-up along middle and lower Chambal River in National Chambal Sanctuary. The nest patrolling team is led by an experienced biologist and trained field assistants, who patrolled the area of about 5 km (minimum) to 16 km (maximum) starting from hatchery site, accompanied by the concerned forest staff. The team either walked or used country boats to drift along the potential nesting sand banks.

Riverside Hatchery Set up

The sites for establishing the riverside hatcheries were selected based on the rapid surveys conducted in early February just before nesting commenced. The locations for the establishment of the hatcheries were chosen on the basis of quality of the bank for incubating the translocated nests. The sand bank and location with moisture content of 2.5-3.5 % with sand particle size ranged between 0.6-0.15 mm were selected for the setup of precise location of hatchery. An area of a ca. 600 sq. meter of sandbank enclosed using chicken wire mesh of 6 feet height of which 2 feet was buried in sand to prevent predators to invade in the hatchery. Hatchery guards ensured nests were protected 24x7 from predators such as the Golden Jackal (*Canis aureus*) and any unwarranted human activities.

Nest Patrolling and Translocation

Nests were located by following nesting crawls and probing suspected locations with a steel ruler. Team surveyed the potential nesting area very early in the morning (05:00-10:00 h) before the nesting trail get disappear either due to sand movement by wind or due to cattle movement. Located nest safely translocated to riverside hatchery along with natal soil immediately for further protection and incubation as early as possible in the morningEggs were translocated to hatcheries in wooden or plastic containers lined with natal soil. While transporting special care is taken so that orientation do not changed and each egg were marked so that not mixed with other nests. During long distance translocation, sand was regularly checked for humidity and water sprinkled to keep it moist. Upper sand of each nest is carefully exposed and before removing the eggs from the nests upper most edge was marked/numbered with marker to identify the orientation of eggs and don't get disturbed while translocating. Numbers written on the individual egg also help to place the eggs again in the same order while placing them back in the artificially excavated hatchery pits. Vital parameters of all the translocated nests like clutch depth, egg chamber depth, width of egg chamber, temperature, distance from water edge and GPS are recorded.



Nesting season

Red-crowned roofed Turtle
(*B. kachuga*)

Three-striped-Roofed Turtle
(*B. dhongoka*)

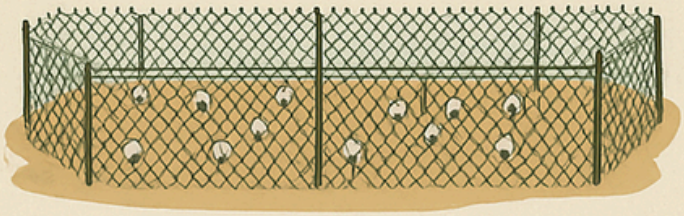
Hatchery Site Selection and Setup

- Patrolling 5-16 km from hatchery site
- Moisture content of 2.5-3.5%
- Sand particle size 0.6-0.15 mm

Nest Patrol and Translocation

- Individual nests marked to hatchery

Riverside Hatchery



Total Nests and Eggs protected of *Batagur* species along Chambal River

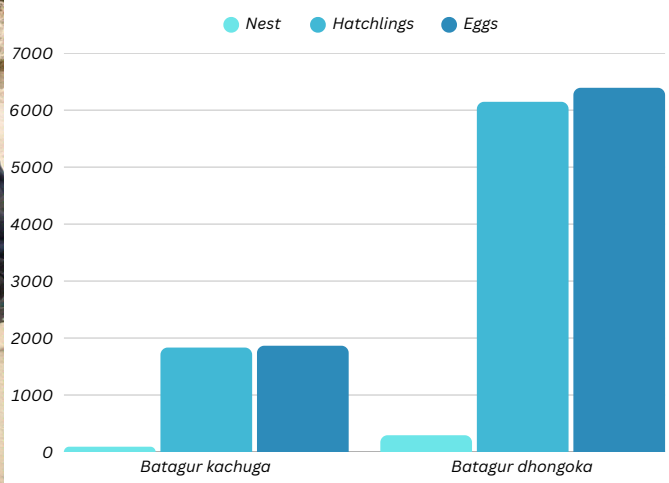
At hatchery, clutches were incubated in holes excavated in a straight lines 1 m distance from each other. Each nest was labeled with a flap containing species, number of eggs and date of translocation. Individual nests were encircled by close-packed stick fencing of 25-30 cm height

A total of 387 nests were protected during the nesting season along the Chambal River, comprising 93 nests of *B. kachuga* and 294 nests of *B. dhongoka*, accounting for 24.03% and 76.9% of the total, respectively. Following an incubation period of 65–70 days, hatchling emergence commenced in the second week of May and continued throughout the month. Overall, 96.63% hatching success was observed for both the Batagur species while higher hatching success (98.28%) was observed for *B. kachuga* .

Total Nests and Eggs protected of *Batagur* species along Chambal river

Species	*B.kachuga*	*B.dhongoka*	Total
No. Nests	93	294	387
No. of Eggs	1865	6392	8257
No. of Hatchlings	1833	6164	7979

At the riverside hatcheries, all emerged hatchlings were systematically segregated, morphometric data were recorded, and individuals were released at their natal sites within 12 hours of hatching. A total of 7,979 hatchlings emerged successfully from the protected nests, resulting in an overall hatching success of 96.7%, with species-specific success rates of 98.28% for *B. kachuga* and 96.15% for *B. dhongoka*. 100 hatchlings has been retained for headstarting at Garhaita Centre, Etawah District.



Headstarting of *Batagur kachuga*

As part of an in-situ conservation initiative, 100 hatchlings of the critically endangered *Batagur kachuga* are being maintained at the Garhaita Turtle Conservation Centre under a structured headstarting program. Headstarting is employed as a population reinforcement strategy to mitigate high early-life mortality rates caused by natural predation, habitat degradation, and anthropogenic disturbances. By rearing individuals through their most vulnerable life stages under semi-controlled, predator-free conditions, the program aims to enhance post-release survival and long-term population viability. Under this project the facility has also been renovated.

Hatchlings are housed in enclosure and maintained under standardized husbandry protocols, which include the provision of freshwater, basking zones, and a species-specific, protein-rich diet to promote optimal somatic growth and physiological development. Monthly morphometric assessments—including straight carapace length (SCL), plastron length, body mass, and condition index—are conducted to monitor individual growth trajectories and identify deviations from expected growth patterns. Data generated from these measurements will inform adaptive management strategies and determine release readiness based on size thresholds and health indicators. The over-arching goal is to support demographic recovery of wild *B. kachuga* populations through scientifically informed reintroduction efforts.

PROJECT EXHIBITIONS AND OUTREACH ACTIVITIES

An educational stall was set up at Indira Gandhi Pratisthan, Lucknow during World Environment Day 5th June, 2025. Mr. Yogi Adityanath. Hon'ble Chief Minister, Uttar Pradesh visited our exhibition and appreciated foundation's efforts being done for conservation of threatened aquatic wildlife.

NMCG supported *Batagur* nest protection initiative implemented along the Chambal River in Rajasthan was selected and showcased during the Rajasthan Van Mahotsav held on 27 July 2025 in Jaipur. The event was graced by Mr. Bhajanlal Sharma, Hon'ble Chief Minister of Rajasthan, along with other distinguished delegates such as Mr. Sanjay Sharma, Hon. Minister of Environment, Forest and Climate Change, Rajasthan. We further showcased the turtle projects during Ganga Utsav at Narora organised by National Mission for Clean Ganga (Namami Gange) which was graced by Mr. CR Patil Hon. Minister of Jal Shakti.

Educational stall at Parvati Agra Bird Sanctuary on World Wetland Day 2025, 2nd February 2025 visited by Mr. Yogi Adityanath Hon Chief Minister, Uttar Pradesh and Mr Kritivardhan Singh. Hon. Union Minister of State of Ministry of Environment, Forest and Climate Change. Educational stall at Nature and Bird Festival, Prayagraj on 17th February was visited by Dr. Arun Kumar Saxena, Hon. State Minister Environment, Forest and Climate Change, Gov. of Uttar Pradesh

Educational stall at Agra Beyond Taj Festival on 28th February 2025, visited by District Magistrate Agra and APCCF Agra.

Over 2000 visitors primarily youth and students visited our exhibition/stalls organised at 6 mega events

ANNEXURE 1: WORLD TURTLE DAY EVENT 23RD MAY 2025

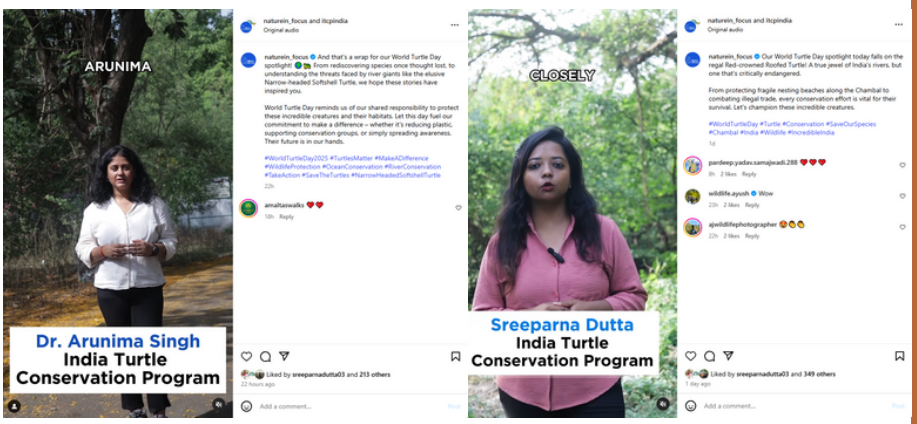
An awareness drive was conducted at CG City Wetland, Lucknow in partnership with the Ganga Task Force, Awadh Forest Division, and Lucknow Development Authority. Inaugurated by Mr. Sanjay Kumar, IAS, the event reached over 200 people, promoting a long-term turtle monitoring and citizen science program. Turtles of gomti and associated wetland resource materials release in the event

200 kilograms of waste were successfully removed during a cleanup campaign along the Saryu River, conducted in collaboration with the Forest Division of Gonda and the District Ganga Committee of Gonda from a proposed Turtle Conservation Reserve.

505 hatchlings of *B. kachuga* and *B. dhongoka* in Chambal River were released with the participation of 150 members, including forest staff and local community members.

A total of 68 students from Vigyan Foundation participated in Kukrail Guided Nature Tour students were engaged with various interactive games, including “Muskan Dolphin and Their Friends” and the “Snake Ladder” activity

Garnered over 40,000 views across various social media platforms through turtle month online campaign. With project being featured in NatureinFocus.



ANNEXURE 2: PROJECT IN PRESS AND SOCIAL MEDIA

अति दुर्लभ तिलकधारी कछुए की ट्रांसमीटर से होगी निगरानी

विश्व कछुआ दिवस

my city # हम लोग

दुर्लभ बटागुर कछुओं का नया ठिकाना है चंबल

दो प्रजातियां साल और ढोर नदी में कुनबा बढ़ा रहीं, शामिल हुए 4400 नन्हे मेहमान

सार-संक्षेप

विश्व कछुआ दिवस पर सरयू किनारे चला सफाई अभियान

नदी की सफाई करते संस्था के सदस्य। अमृत विचार

करनैलगंज, गोंडा: विश्व कछुआ दिवस के अवसर पर शुक्रवार को सरयू नदी के कटरा घाट, बसेहिया पर विशेष स्वच्छता अभियान चलाया गया। टीएसए फाउंडेशन इंडिया के तत्वावधान में आयोजित इस अभियान में वन प्रभाग गोंडा और जिला गंगा समिति ने भी भागीदारी निभाई। कार्यक्रम का उद्देश्य नदियों और वेटलैंड्स की सफाई के जरिए कछुओं व अन्य जलीय जीवों के संरक्षण को बढ़ावा देना था। इस दौरान उपस्थित लोगों को कछुओं के पर्यावरणीय महत्व के बारे में जानकारी दी गई। बताया गया कि कछुए पारिस्थितिकी तंत्र का अहम हिस्सा हैं और इनका संरक्षण जल की गुणवत्ता और जैव विविधता के लिए जरूरी है। अभियान के जरिए आमजन में जागरूकता फैलाने का प्रयास किया गया कि स्वच्छ नदियां ही स्वस्थ जलजीवों का घर होती हैं। कार्यक्रम में टीएसए फाउंडेशन इंडिया से हर्षित सिंह, नमामि गंगे की जिला परियोजना अधिकारी अंकिता सिंह, योगेन्द्र सिंह, शिवम् सिंह, बीरू सिंह, आलोक तिवारी, जयाकाश मिश्रा, कृष्ण कुमार पाण्डेय, सुरेश, शिवेंद्र सिंह, शिवदुलारी, राजा सिंह समेत बड़ी संख्या में लोग मौजूद रहे।

World Turtle Day: Awareness drive he at CG City Wetland

HT Correspondent

letters@htlive.com

LUCKNOW: On the occasion of World Turtle Day, the Turtle Survival Alliance Foundation India (TSAFI), in collaboration with forest department (Awadh) and Lucknow Development Authority (LDA), organised an awareness drive at CG City Wetland, aiming to edu-

freshwater turtle cons and wetland protecti

Delivering the speech, Dr Shailendr director of TSAFI, em the ecological impor India's freshwater tu the growing threats habitats.

"Turtles are keyst cies, by protecting t ensure the health

Unique Success of the Namami Gange Mission: The Return of the Red-Crowned Roofed Turtle to the Ganga After Three Decades

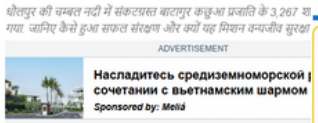
This initiative marks a historic step in the Ganga's ecosystem

The return of the endangered Turtle species becomes a beacon of hope for biodiversity conservation in Ganga

चम्बल नदी में लौटा कछुओं का बड़ा कुनबा, 3 ज्यादा संकटग्रस्त बाटागुर के नवजातों को छो

धौलपुर की चम्बल नदी में संकटग्रस्त बाटागुर कछुआ प्रजाति के 3,267 गया. जानिए कैसे हुआ सफल संरक्षण और क्यों यह मिशन वन्यजीव सुरक्ष

दैनिक भास्कर जयपुर 25-05-2025



ADVERTISEMENT

Насладитесь средиземноморской р сочетании с вьетнамским шармом

Sponsored by: Meliá

तस्वीर: उमेश मिश्रा, राजस्थान तक

Umesh Mishra

02 Jun 2025 (अपडेटेड: Jun 2 2025 6:29 PM)

चम्बल नदी का किनारा नन्हे कछुओं की हलचल से र

कछुआ प्रजाति के 3,267 शावकों को सफल संरक्ष

कछुओं की कॉलोनी : विलुप्त होती कछुओं की प्रजातियों को बचाने की कवायद, धौलपुर में 160 नेस्ट में तैयार दो प्रजातियों के 3267 बच्चे चंबल नदी में छोड़े

MONGABAY

Tracking critically endangered turtles in the Ganges

MANISH CHANDRA MISHRA

24 JUN 2025 UTTAR PRADESH BEYOND PROTECTED AREAS

Comments Share article

- Critically endangered red-crowned roofed turtles or batagur kachuga, which were considered almost extinct, returned to the Ganga river after 30 years.
- Twenty batagur kachuga turtles have been translocated from a turtle conservation centre and released in the Ganga river in the Meerut forest division of Uttar Pradesh.

विश्व कछुआ दिवस : कछुआ के बाटागुर प्रजाति के हैं बच्चे

संकटग्रस्त कछुआ की प्रजातियों के 3267 बच्चे चंबल में छोड़े

राष्ट्रीय चंबल घड़ियाल अभयारण्य, वन विभाग और एनजीओ का रहा सहयोग

बजरी माफिया से बचा कर रखा

बटागुर कछुआ

विश्व कछुआ दिवस : हैचिंग में अब तक जन्मे 5418 बच्चे, रंग ला रही टीएसए और वन विभाग की संयुक्त पहल

चंबल के लिए रवाना होते नन्हे कछुए। संवाद

बाह। विश्व कछुआ दिवस पर जहां दुनिया शुक्रवार को दुर्लभ हुए कछुओं और उनके प्राकृतिक स्थलों को संरक्षित किए जाने पर मंथन में जुटी रही। वहीं, बाह और इटावा रेंज में बटागुर कछुओं के 1018 नन्हें मेहमानों को चंबल नदी की गोद में पहुंचाने पर उत्साह एवं खुशी का माहौल रहा। टीएसए एवं वन विभाग के संरक्षण के संयुक्त प्रयास से इस साल अब तक 5418 कछुओं के बच्चों का जन्म हो चुका है।

दुनिया में दुर्लभ हुए बटागुर कछुओं की साल और ढोर प्रजाति से चंबल नदी आबाद है। विश्व कछुआ दिवस पर बाह में रेंजर उदय प्रताप सिंह के नेतृत्व में चंबल नदी के नंदगवां घाट पर 513 बटागुर कछुओं के बच्चों को चंबल नदी में छोड़ा गया। इटावा में रेंजर कंटेश कुमार के नेतृत्व में टीएसए ने 500 बच्चों को चंबल नदी में छोड़ा। विश्व कछुआ दिवस पर दोनों रेंजों में हैचिंग से 1018 बच्चों के जन्म का उत्सव मनाया गया।

बताते कि इससे पहले अंडों से बाहर आए बाह रेंज में 2600 तथा इटावा रेंज में 1800 बच्चे चंबल नदी में छोड़े गये थे। गढ़ायता में टीएसए ने 227 नेस्ट में 4500 अंडे, बाह में वन विभाग ने 130 नेस्ट में 3250 अंडे संरक्षित किए गये थे। कछुओं के जन्म के उत्सव में बाह में वन विभाग का अमला तथा इटावा में केके त्यागी, ओमप्रकाश बघेल, अंकित, अनुरुद्ध, टीएसए के पवन पारीक, शिशुभान सिंह, मेघा आदि मौजूद रहे। संवाद

MYogiAdityanath's post

MYogiAdityanath
May 22 ·

व्यक्ति, प्रकृति के जितना अधिक नजदीक रहेगा, उतना ही स्वस्थ महसूस करेगा।... See more

The closer the person is to nature, the healthier he will feel. Inaugurated National Seminar-2025 on 'Harmony with Nature and Sustainable Development' in Lucknow today ... See more

Hide original · Rate this translation

Ravi Kumar Singh, Arunima Singh and 6.7K others 685 comments 360 shares

C R Paatil
Apr 30 ·

माननीय प्रधानमंत्री श्री Narendra Modi सर के नेतृत्व में चल रहे नमामि गंगे मिशन के तहत गंगा नदी में तीन दशक बाद रेड-क्राउन रूफ्ड टर्टल प्रजाति की वापसी संभव हो पाई है। यह वही प्रजाति है, जिसे उत्तर भारत की सबसे संकटग्रस्त प्रजातियों में गिना जाता था।

26 अप्रैल, 2025 को हैदरपुर वेटलैंड में 20 कछुओं को वैज्ञानिक पद्धति से दो अलग-अलग समूहों में छोड़कर पुनर्वास प्रक्रिया शुरू की गई है। इन कछुओं को ट्रैकिंग उपकरणों से जोड़ा गया है ताकि उनकी निगरानी की जा सके।

गंगा की सफाई से आगे बढ़कर अब जैवविविधता की बहाली पर केंद्रित नमामि गंगे मिशन, भारत की पर्यावरणीय प्रतिबद्धता का सशक्त उदाहरण बन चुका है। यह पुनर्प्रवेश गंगा की पारिस्थितिकी को पुनर्स्थापित करने की दिशा में एक महत्वपूर्ण मील का पत्थर है, और यह दिखाता है कि सक्षम नेतृत्व, वैज्ञानिक दृष्टिकोण और संस्थागत समन्वय से बड़े बदलाव संभव हैं।

यह सिर्फ एक नदी नहीं, पूरे भारत की जीवनधारा है, और इसके संरक्षण के लिए हमारी प्रतिबद्धता अडिग है।

#JalShakti #NamamiGange #GangaRejuvenation #ModiGovernment

See translation

upforestdepartment

upforestdepartment Endangered Turtles Return Home after three decades: Uttar Pradesh has seen a new beginning for turtle conservation last week when a joint project team reintroduced 20 Red Crowned Roofed Turtles (10 males and 10 females) in Haiderpur Wetland Complex in middle Ganga with active support from Namami Gange. Prior to that three long assessments were carried out under the Indian Turtle Conservation Program along Ganges in Muzaffarnagar (2020) and Prayag District (2022), with support from respective DFOs. Few specimens were sighted in this part of Ganga in early 1990, and the population is now only shrunk to Chambal river with a few hundred adults surviving. This is the first ever reintroduction of this species, and monitored release of any turtle species in Ganga. The juvenile turtles were released for over 4 years at a conservation facility in Chambal River. This soft Vs hard release strategy and next two years monitoring using sonar based devices by a joint project team under the guidance of DFO Muzaffarnagar will help us understand the future implications for making this project successful. This project is being implemented under the guidance of PCCF HoFF, UP, Mr Sunil Chaudhary, PCCF (Wildlife) Ms Anuradha Vemuri and CCF (Western) Mr NK Janoo and active support from DFO Muzzafarnagar, Mr Rajesh Kumar and DFO Chambal Mrs Chandni Singh.

11w

deepakverma89 Finally some work on conservation

10w Reply

arunimasingh7 @chandni_ifs @itcpindia @turtlesurviva

11w Reply

Liked by arunimasingh7 and 83 others

April 28

Add a comment...

ANNEXURE 3: PUBLICATIONS

Conservation News

First study on the survival and dispersal of captive-reared narrow-headed softshell turtles along the Yamuna River, India

Conservation breeding and head-starting programmes are widely implemented to bolster wild populations of threatened species. However, monitoring the survival of head-started individuals in the wild is often hampered by funding limitations, difficulties with obtaining necessary permits and fieldwork constraints. Despite these obstacles, assessing survival rates is essential for evaluating the success of such conservation initiatives.

The narrow-headed softshell turtle *Chitra indica*, one of India's most enigmatic and elusive freshwater turtle species, is categorized as Endangered on the IUCN Red List. Native to the Indian subcontinent, this species has declined as a result of poaching and habitat change.

Chitra indica were hatched from eggs protected under a nest protection and head-starting programme initiated in 2012 by the India Turtle Conservation Program in collaboration with the Uttar Pradesh Forest Department. Despite husbandry challenges, 35 offspring were successfully raised at the Kukrail Gharial Rehabilitation Centre in Lucknow, Uttar Pradesh.

In late November 2024, with the support of the Turtle Survival Alliance Foundation India and the Uttar Pradesh Forest Department, we released 15 head-started subadult *C. indica* into the wild. To monitor post-release survival, we procured 10 VHF tags customized for softshell turtles, with the support of the Turtle Conservation Fund and Dutch–Belgian Turtle and Tortoise Society. The transmitters were attached to five male and five female turtles, which were subsequently released into the Yamuna River in the Agra district of Uttar Pradesh, on 28 November 2024.

The released turtles had an average weight of 6.8 kg (range 3.9–9.9 kg) and an average straight carapace length of 39.5 cm (range 24.3–44.9 cm). The weight of the VHF tags, including screws and fixing material, was 65 g.

This study is a critical step in our ongoing efforts to increase the wild population of *C. indica*. By monitoring and tracking the tagged individuals, we will gather vital data on habitat preferences, survival rates and dispersal patterns. These findings will help to evaluate the effectiveness of species recovery programmes, including nest protection, head-starting and the release of captive-raised individuals. The outcomes of this study will also inform adaptive management strategies for future conservation efforts. Ultimately, this work will support the long-term recovery and viability of *C. indica* populations across the species' native range.

Arunima Singh (arunimasingh7@gmail.com), *Shailendra Singh*, *Adarsh Kumar*, *Pawan Shantiprakash Pareek* and *Sreeparna Dutta*
[1]*Turtle Survival Alliance Foundation India, Lucknow, Uttar Pradesh, India.*
[2]*Uttar Pradesh Forest Department, Lucknow, India*

Oryx, page 1 of 1 © The Author(s), 2025. Published by Cambridge University Press on behalf of Fauna & Flora International doi:10.1017/S0030605325000298
https://doi.org/10.1017/S0030605325000298 Published online by Cambridge University Press

Singh A, Singh S, Kumar A, Pareek PS, Dutta S. First study on the survival and dispersal of captive-reared narrow-headed softshell turtles along the Yamuna River, India. Oryx. 2025;59(3):286-287. doi:10.1017/S0030605325000298

SPECIAL CONSERVATION

RED-CROWNED ROOFED TURTLE

Batagur kachuga

TURNING TURTLE

Once a jewel of the Ganga, the large riverine turtle clings to life in a shrinking sanctuary

SHAILENDRA SINGH AND PAWAN PAREEK

FOUND IN
Ganga river basin

NUMBERS IN WILD
Fewer than **1,000** adults, as per Indian Turtle Conservation Program, Lucknow

CONSERVATION STATUS
Critically Endangered under IUCN Red List

MAJOR THREAT
Inbreeding depression

Jewel of the Ganga. That is how the red-crowned roofed turtle (*Batagur kachuga*) is often described due to its striking colouration, especially the brilliant hues displayed by males just before winter. Their heads flare with red, yellow, white and blue stripes; the crown glows a vivid red, giving the species its name.

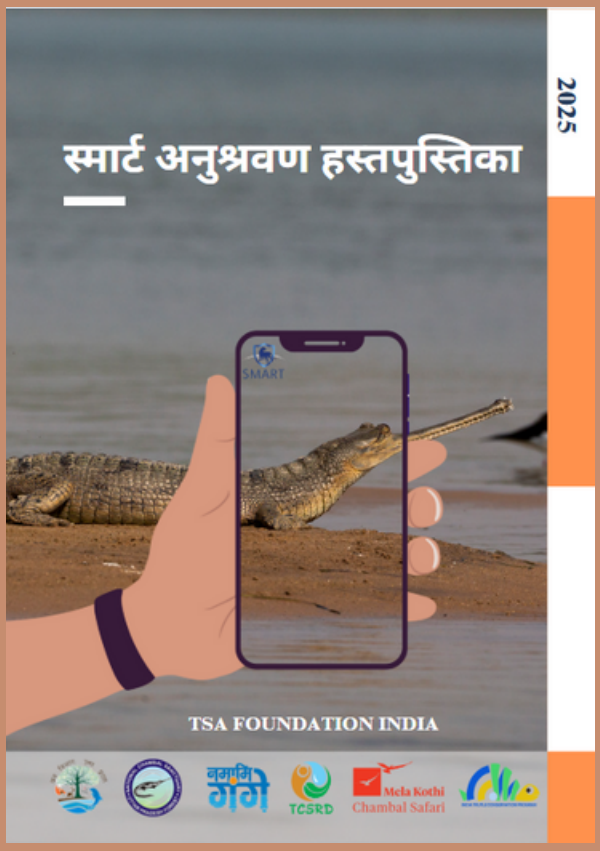
The turtle is one of the three large freshwater species in the genus *Batagur* found in India. All are listed as Critically Endangered in the International Union for Conservation of Nature's (IUCN's) Red List, and protected under Schedule I of the Wild Life (Protection) Act, 1972 as well as Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

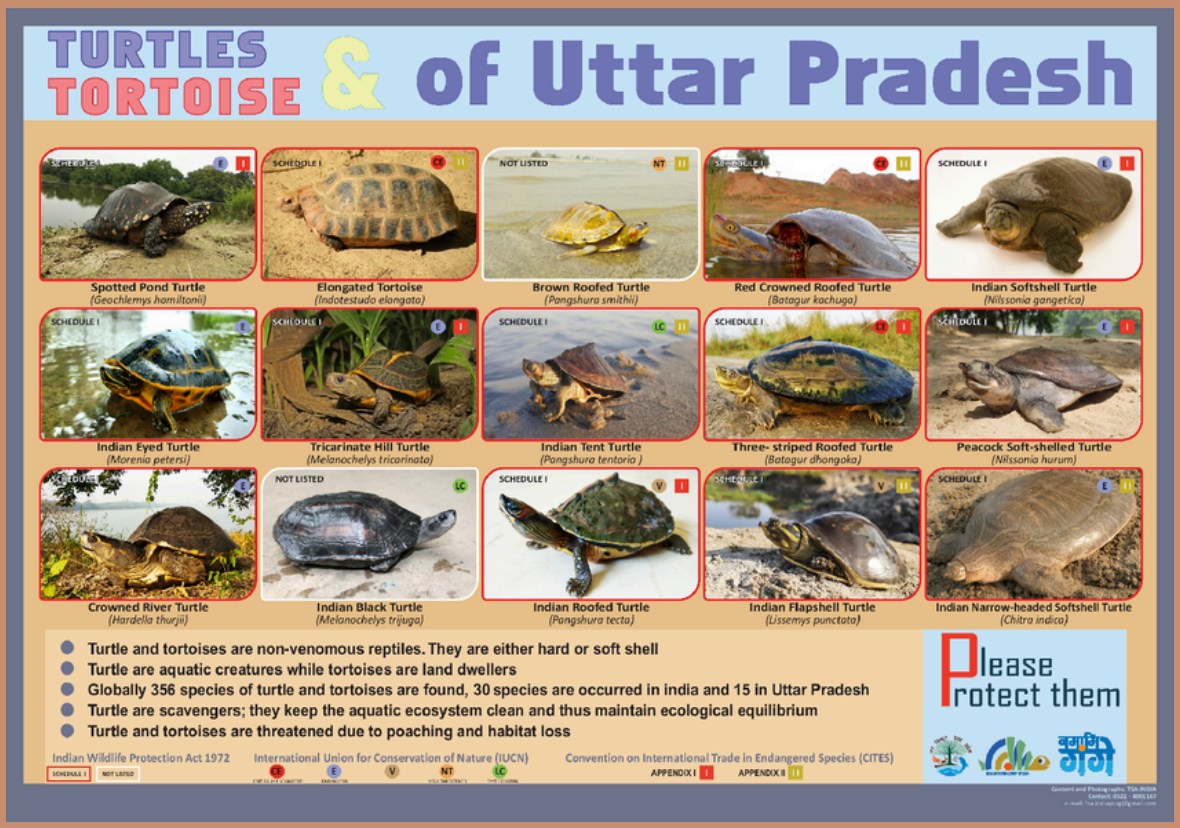
Historically, the red-crowned roofed turtle ranged widely across the Ganga river basin, inhabiting major rivers and tributaries throughout a 400,000 sq km landscape. Intensive hunting of adults and eggs triggered a catastrophic collapse—an estimated 80 per cent population decline—alongside a dramatic contraction of its range. A 1993 survey in unified Uttar Pradesh's Rishikesh and Kanpur recorded several individuals in the upper Ganga. But subsequent surveys in 2006 and 2020 around Narora

PHOTOS: (THIS PAGE) CREATIVE COMMONS (OPPOSITE PAGE) ISTOCK PHOTOS

Singh, S., & Pareek, P. (2025, December). Turning turtle: Once a jewel of the Ganga, the large riverine turtle clings to life in a shrinking sanctuary. Down To Earth, 16–31 December. https://reader.magzter.com/preview/x0kg0hp3erdoner3poy3522823070/2282307

ANNEXURE 4: SAMPLE IEC MATERIALS UTILIZED IN TRAINING/WORKSHOPS





Short Documentary on *Batagur* Nest Protection in National Chambal Sanctuary

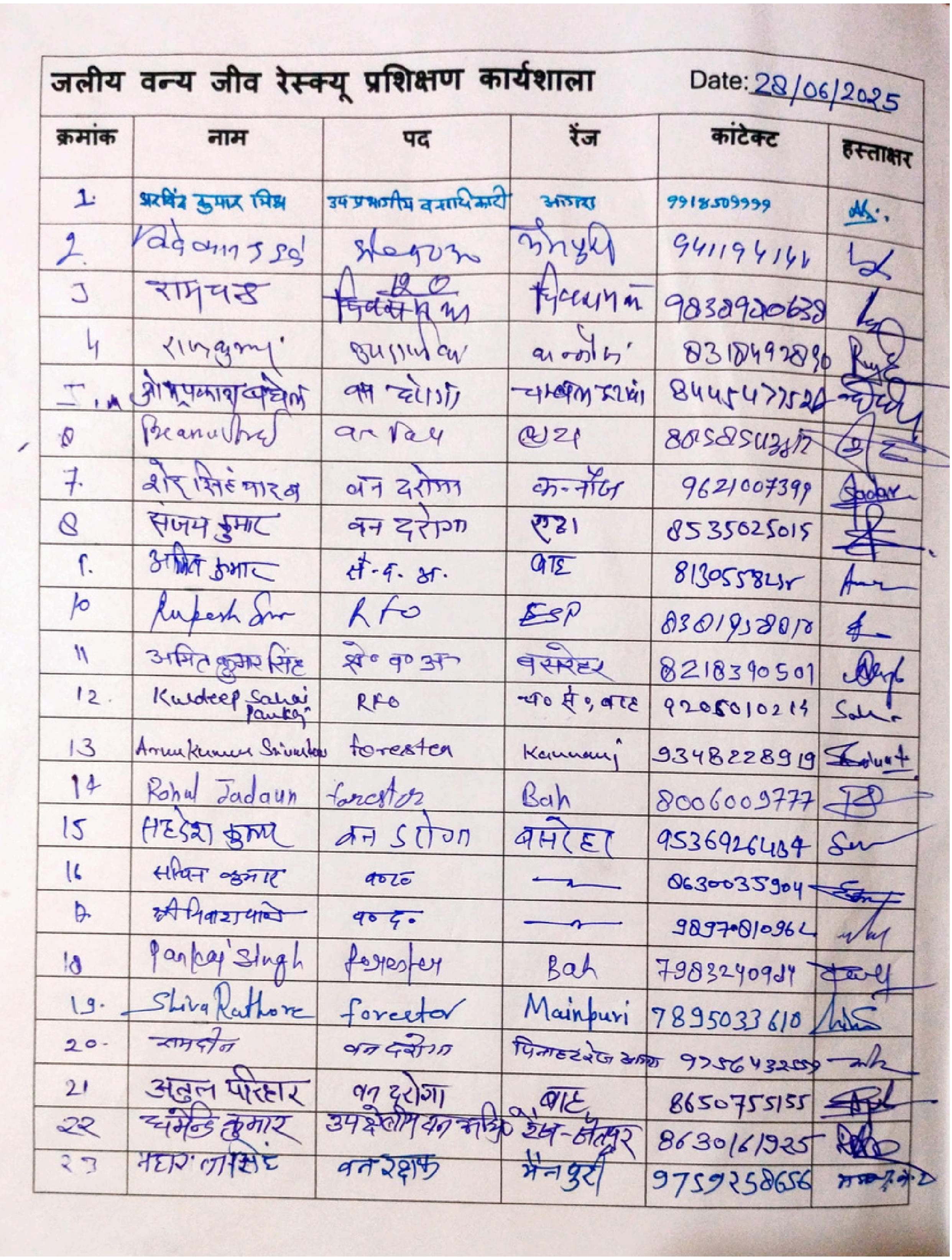
Link:https://drive.google.com/file/d/1uNc1Ypknow5SlH0mzXiKnsEHSv_jFT_j/view?usp=sharing

REINTRODUCTION PROTOCOL FOR THREATENED FRESHWATER TURTLES

TSA FOUNDATION INDIA

ANNEXURE 5: SAMPLE LIST OF ATTENDEES

Participants registration of Frontline Forest Staff Training on 28.06.2025



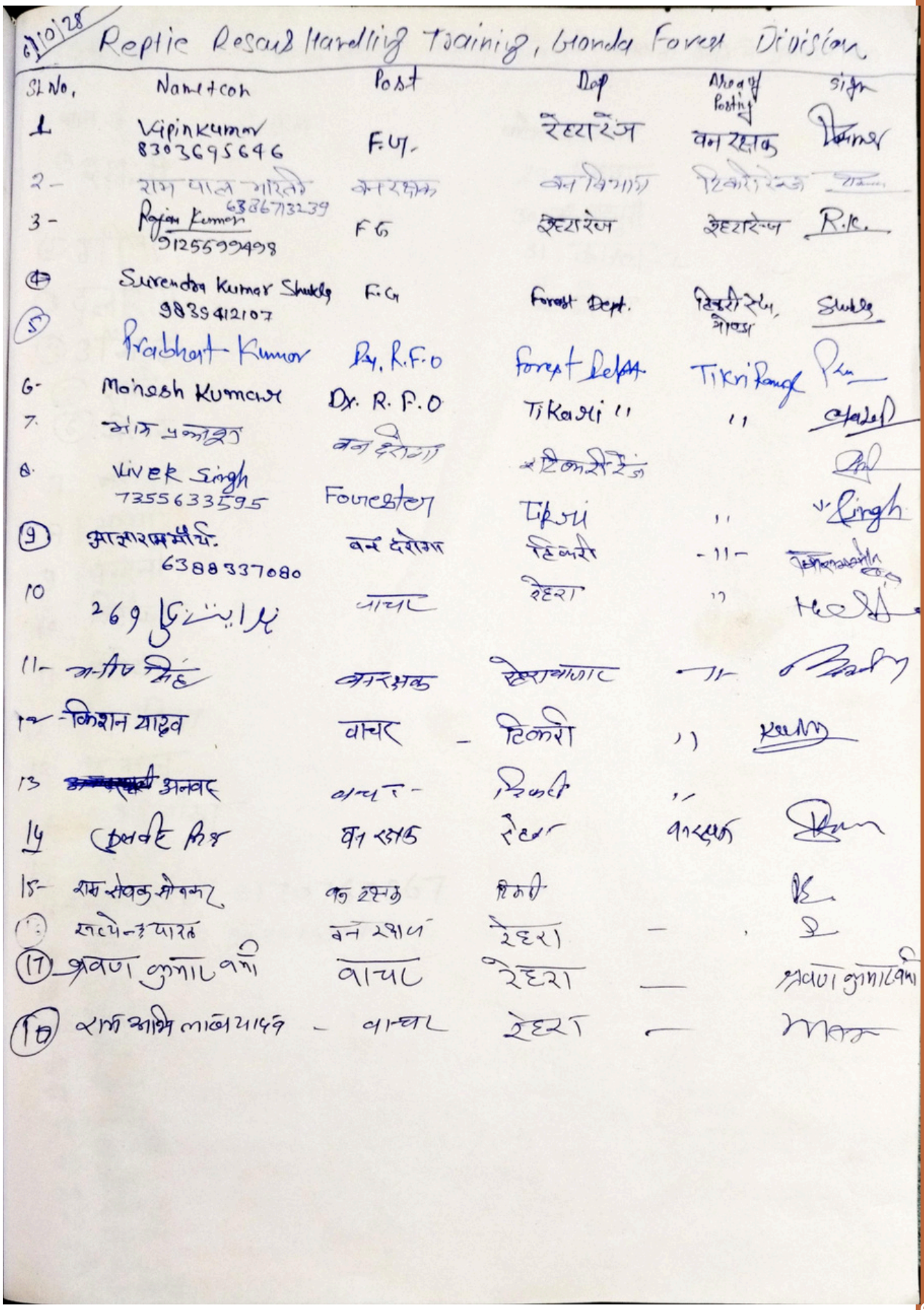
जलीय वन्य जीव रेस्क्यू प्रशिक्षण कार्यशाला Date: 28/06/2025

क्रमांक	नाम	पद	रेंज	कांटेक्ट	हस्ताक्षर
1.	अरविंद कुमार मिश्र	उप प्रभागीय वनाधिकारी	आगरा	9918509999	[illegible]
2.	Vedprakash Singh	[illegible]	मैनपुरी	9411941641	[illegible]
3	रामचन्द्र	R.O.	[illegible]	9838920638	[illegible]
4	राजकुमार	[illegible]	कन्नौज	8318492890	[illegible]
5.	ओमप्रकाश बघेल	वन दरोगा	[illegible]	8445477524	[illegible]
6	[illegible]	[illegible]	[illegible]	8058548417	[illegible]
7.	शेर सिंह यादव	वन दरोगा	कन्नौज	9621007399	[illegible]
8	संजय कुमार	वन दरोगा	एटा	8535025015	[illegible]
9.	अमित कुमार	सं.व.अ.	बाह	8130558458	[illegible]
10	Rupesh Sin	RFO	ESP	8301938018	[illegible]
11	अमित कुमार सिंह	क्षे० व० अ०	बसरेहर	8218390501	[illegible]
12.	Kuldeep Sahai Pankaj	RFO	[illegible]	9205010215	Sahai
13	Arun Kumar Srivastava	forester	Kannauj	9348228919	[illegible]
14	Rahul Jadaun	forester	Bah	8006009777	[illegible]
15	महेश कुमार	वन दरोगा	बसरेहर	9536926484	[illegible]
16	सचिन कुमार	वनर०	—	8630035904	[illegible]
17	श्री [illegible]	व० द०	—	9897081096	[illegible]
18	Pankaj Singh	forester	Bah	7983240984	[illegible]
19.	Shiva Rathore	forester	Mainpuri	7895033610	[illegible]
20.	रामदीन	वन दरोगा	[illegible]	9756432059	[illegible]
21	अतुल परिहार	वन दरोगा	बाह	8650755155	[illegible]
22	धर्मेन्द्र कुमार	उप क्षेत्रीय वन अधिकारी	[illegible]	8630161925	[illegible]
23	[illegible]	वन रक्षक	मैनपुरी	9759258656	[illegible]

जलीय वन्य जीव रेस्क्यू प्रशिक्षण कार्यशाला Date:_____

क्रमांक	नाम	पद	रेंज	कांटेक्ट	हस्ताक्षर
24	ओऽम प्रकाश	वन दरोगा	इटावा सफारी पार्क	8864814784	
25	सचिन तिवारी	वन दरोगा	इटावा सफारी पार्क	8479840152	
26	अखिलेश सिंह	RFO	फिरोजाबाद	9068154086	
27	AKHILESH PATEL	SDFO	Mainpuri	6394072328	
28	Shivam Pathak	Forester	Karhal	9870017401	
29	कैलाश चन्द्र	कैटल ट्रेनिंग	इटावा रेंज	9761870553	
30	विष्णु सिंह	वन दरोगा	इटावा रेंज	8445571214	
31	विमल सिंह	SDO, Etawah	Etawah	9694810124	
32	Vandan Singh	PDO, Mainpuri	Mainpuri	9599270693	
33	K.C.Shekhar	WLW, NCSP	NCSP	8527603745	
34	Virendra Pratap	R.F.O Ichauli	Ichauli	8077720862	
35	[illegible]	RFO [illegible]	[illegible]	8218140984	
36	Shoaib alam	R.F.O Karhal	Karhal	9044550680	
37	Sanjeev kumar	DY R.O Etah	Etah Div.	9412159496	
38	सुधीर कुमार	वन दरोगा	[illegible]	9457623180	
39	[illegible]	वन दरोगा	[illegible]	7895306343	
40	Tinkal kumar	forester	NCSP	7906496135	
41	Pradeep Kumar	Forester	Mainpuri	9997431500	
42	[illegible]				

Participants registration of Frontline Forest Staff Training on 06.10.2025



6/10/25 Reptic Resaul Handling Training, Gonda Forest Division.

Sl No.	Name & con	Post	Dep	Area of Posting	sign
1	Vipin Kumar 8303695646	F.G.	रेहरा रेंज	वन रक्षक	Vipin Kumar
2-	राम पाल गौतम	वनरक्षक	वन विभाग	टिकरी रेंज	
3-	Rajan Kumar 6388713239 9125599498	F G	रेहरा रेंज	रेहरा रेंज	R.K.
4	Surendra Kumar Shukla 9839412107	F.G	Forest Dept.	टिकरी रेंज, गोण्डा	Shukla
5	Prabhat Kumar	By. R.F.O	Forest Deptt.	Tikri Range	
6-	Monish Kumar	Dy. R. F. O	Tikari "	"	
7.	अंकित श्रीवास्तव	वन क्षेत्राधि	टिकरी रेंज		
8.	Vivek Singh 7355633595	Forester	Tikri	"	V. Singh
9	आत्माराम मौर्य. 6388337080	वन क्षेत्राधि	टिकरी	-"-	
10	269 [illegible]	वाचर	रेहरा	"	
11-	[illegible]	वनरक्षक	रेहराबाजार	-"-	
12-	किशन यादव	वाचर	टिकरी	"	
13	[illegible] अनवर	वाचर	टिकरी	"	
14	[illegible]	वन रक्षक	रेहरा	वनरक्षक	
15-	राम सेवक सोनकर	वन रक्षक	टिकरी		
16	सत्येन्द्र पासवान	वन रक्षक	रेहरा		
17	श्रवण कुमार वर्मा	वाचर	रेहरा		श्रवण कुमार वर्मा
18	राम आशिष लोधी यादव	वाचर	रेहरा		

Participants of SMART Training on 05.02.2025				
Sr. No.	**Name**	**Designation**	**Range**	**Contact No.**
1	Mr. Uday Pratap Singh	Range Officer	Bah	8445683310
2	Mr. Rajesh Kumar	Forest Guard	Bah	7906252531
3	Mr. Tinku	Forest Guard	Bah	9149395898
4	Mr. Dilip Kumar	Forest Guard	Bah	7355574611
5	Mr. Rahul Kumar	Forest Guard	Bah	7983586107
6	Mr. Satya Prakash Singh	Forester	Bah	7755892731
7	Mr. Vinod Kumar Yadav	Forest Guard	Bah	9761226410
8	Mr. Sidar Singh	Forest Guard	Bah	9897766601
9	Mr. Ramesh Chand	Forest Guard	Bah	9927286579
10	Mr. Sobharam	Boatman	Bah	-
11	Mr. Sonu	Boatman	Bah	-
12	Mr. Yogesh Kumar	Forest Guard	Bah	7456070280
13	Mr. Rahul Jadaun	Forester	Bah	8006009777
14	Mr. Yogendar Singh	Forest Guard	Bah	7985353636
15	Mr. Chandarbhan Singh	Forester	Etawah	9719712178
16	Mr. Vishunpal Singh	Forester	Etawah	8445571214
17	Mr. Pratap Singh	Forester	Etawah	6398249374
18	Mr. Anuirudh Kumar	Forest Guard	Etawah	9410070499
19	Mr. Govind Singh	Forest Guard	Etawah	7974298351
20	Mr. Rohit Kumar	Forest Guard	Etawah	9411241096
21	Mr. Ashutosh Kumar	Forest Guard	Etawah	8958737802
22	Mr. Omprakash Bagel	Forester	Etawah	8445477528
23	Mr. Avdesh Kumar	Watcher	Etawah	-

ANNEXURE 6: APPRECIATIONS

Adarsh Kumar,
IFS

OFFICE OF THE
CONSERVATOR OF FOREST,
MEERUT CIRCLE, MEERUT

D.O. Letter No.–2168 /14–1,
Dated: Meerut: 26, December 2025

Subject: Your partnership and support toward conservation of threatened turtles and other sympatric species of Gangetic Basin.

Dear Dr Singh,

I am delighted to send my appreciation for your efforts toward saving endangered turtles and other aquatic wildlife and their habitats of Uttar Pradesh.

The release and monitoring of captive raised Narrow-headed Soft-shell Turtles into Yamuna river in association with Agra Forest Division toward end of 2024 was a historic event. I as then the Divisional Forest Officer, Agra was highly impressed with the first ever release of highly endangered turtles post our collaborative habitat assessment and surveys of middle Yamuna in 2023. Our Joint 6th School in Wildlife Biology and Conservation, which was hosted in Agra in 2024 was a successful training early career researchers.

I have just been briefed about sustained monitoring of most endangered species Red-crowned Roofed Turtle, those were released by your project team in early 2025 in Ganges near Hastinapur Wildlife Sanctuary. I am sure that this exercise will improve our knowledge about this species and habitats and return the enigmatic species to Ganga.

I really value the partnerships we developed for saving Ganga river and endangered riverine species over the years and look forward strengthening it more in years to come.

Sincerely,

(Adarsh Kumar)

To,

Dr Shailendra Singh,
The Director
TSA Foundation India
Lucknow.

D:/ A.S.O./ D.O letters/page 103

"In the hands of our children lies the future of the Ganga, and in the survival of turtles lies its health."

TSA Foundation India

D1/317 Sector F Jankipuram, Lucknow 226021

tsafoundationindia@gmail.com

0522-4001167