



# ANNUAL REPORT 2021-22

Sundarban Tiger Reserve  
Directorate of Forests  
Govt. of West Bengal

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## Chapter 1

### General Introduction and Background

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## GENERAL INFORMATION

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- **Background**
- **Present Status**
- **Significance of Sundarban Mangroves**
- **Boundaries**

- **BACKGROUND**

India's globally renowned conservation scheme 'Project Tiger' was launched on 23rd December 1973, in Sundarbans. It thus has the distinction of being one of the first nine Tiger Reserves to be declared in the country. The Sundarbans Tiger Reserve (STR) is situated in the coastal districts of West Bengal, *i.e.* South 24-Parganas and North 24-Parganas (Arbesi Block only). It lies at the southern-most extremity of the lower Gangetic delta bordering the Bay of Bengal. The Sundarbans can be described as a maze of estuaries, river channels, and creeks encompassing a number of islands (105) of various shapes and sizes. The Tiger Reserve has an area of 2584.89 sq. km. and along with the Bangladesh's Sundarbans forms the largest contiguous tract of mangrove forest anywhere in the world. It is the only mangrove forest throughout the world (besides Bangladesh) to harbour significant tiger population. Apart from the tiger, the Sundarban Tiger Reserve also has a rich array of biodiversity values both floral and faunal.

- **PRESENT STATUS**

The Indian Sundarban has a forest area of 4,263 sq. km. of which 2,584.89 sq.km. has been designated as Sundarban Tiger Reserve (STR), *w.e.f.* 23.12.1973. Within this Tiger Reserve, 1699.62 sq. km. has been designated as the Critical Tiger Habitat (CTH) vide Notification No. 6028-For, dated 18.12.2007. Within this CTH, lies the Sundarban National Park having an area of 1330.12 sq. km. area notified vide No. 2867-FOR, dated 04.05.1984. The area outside the CTH is known as Buffer Zone notified vide No. 615-For/11M-28/07, dated 17.02.2009. Within the buffer area is located the Sajnekhali Wildlife Sanctuary covering an area of 362.42 sq. km. vide Notification No. 5396-FOR, dated 24.06.1976. Rest of the area is the multiple use zone, which is used by the local population to fulfill their *bonafide* needs. The importance of this area was recognized by the UNESCO and the area was accorded the status of a World Heritage Site in the year 1987. (now renamed as World Heritage Property)

## SIGNIFICANCE OF SUNDARBAN MANGROVES

The Sundarbans mangrove eco-system is considered to be unique because of its species, richness due to its diverse mangrove flora, which constitutes the mangrove-associated flora, back mangrove species and several endemic typical mangrove associated fauna of different groups. In addition to its floral richness, the Sundarbans harbors many rare and endangered animal species apart from the Royal Bengal Tiger. These include the estuarine crocodile (*Crocodylus porosus*), water monitor lizard (*Varanus salvator*), globally endangered Batagur Terrapin (*Batagur baska*), sea turtles, *viz.* Olive Ridley (*Lepidochelys olivacea*), Green sea turtle (*Chelonys mydus*), Hawksbill turtle (*Eretmochelys imbricata*), fishing cats (*Felis viverrina*), smooth coated otters (*Lutra perspicillata*), the Gangetic (*Platanista gangetica*) & Irrawady (*Orcaella brevirostris*) dolphins and the rare African

visitor Goliath Heron (*Ardea goliath*) are some of the mentionable species among 53 such rare and endangered animals. In addition to the above, there have been recorded 20 identified species of prawns and 44 species of crabs including two edible ones. The mangrove forest acts as the nursery for the finfish and shell fish and sustains the fisheries all along the eastern coast of India. It also shelters the metropolis of Kolkata from cyclonic storms and tidal surge.

## **BOUNDARIES**

The Sundarbans Tiger Reserve is bound in the east by the international boundary with Bangladesh formed by the rivers Harinbanga, Raimangal and Kalindi. On the south lies the Bay of Bengal. The western border is formed by the river Matla, which acts as a common boundary with the territorial Forest Division of South 24-Parganas. Towards the north-west, the area is bound by rivers Bidya and Gomdi. All the fringe villages lie outside the Tiger Reserve along the northern boundary.

There exist two distinct ecological units of mangrove vegetation as are given below:

1. The western portion lying west of river Thakuran where a trickle of sweet water reaches from the river Hooghly, *i.e.* mostly in the South 24-Parganas Forest Division.
2. The central mangrove patch, which is practically cut off from the upstream flow and is fed by backwaters of Bay of Bengal lying between rivers Harinbanga and Thakuran. The Sundarbans Tiger Reserve falls under this area. The salinity regime is very high here. However, on the eastern side bordering Bangladesh river Kalindi receives some sweet-water flow, as a result, the salinity levels are comparatively low.

## **SIGNIFICANCE OF SUNDARBAN TIGER RESERVE**

- One of the first nine Tiger Reserves declared under the Project Tiger scheme in the year 1973.
- The National Park area of the Tiger Reserve is a natural World Heritage property, which was declared in the year 1985.
- The Sundarban Tiger Reserve is a part of the Sundarban Biosphere Reserve, which is one of the few globally recognised Biosphere Reserves in the country. It was declared as a Biosphere Reserve in the year 1989.
- It constitutes over 60% of the total mangrove forest area in the entire country and has 90% of the total Indian mangrove species
- There are 140 plant species under 59 families and 101 genera which have been reported from the entire Biosphere region by Naskar *et al.* These comprise of true mangroves or major elements, minor elements of mangroves or/and mangrove associates, back mangrove trees and shrubs, non-halophytic non-mangrove associates

in the area, halophytic herbs, shrubs, and weeds and epiphytic and parasitic plants.

- The Sundarbans has been classified as a Tiger Conservation Landscape of global priority, as it is the only mangrove habitat (along with the Bangladesh), which support a significant tiger population.
- The Tiger Reserve is home to a large number of endangered and globally threatened species like the tiger (*Panthera tigris tigris*), fishing cat (*Felis viverrina*) and estuarine crocodile (*Crocodylus porosus*), Gangetic (*Platanista gangetica*) and Irrawaddy Dolphin (*Oracella brevirostris*), king cobra (*Ophiophagus hannah*), water monitor lizard (*Varanus salvator*) etc.
- It harbours significant populations of the river terrapin (*Batagur baska*), which was once believed to be extinct.
- It is the nesting ground for marine turtles like Olive Ridley (*Lepidochelys olivacea*), Green sea turtle (*Chelonia mydas*) and Hawksbill turtle (*Eretmochelys imbricata*).
- The mangroves serve as nurseries to shell fish and fin-fishes and sustain the coastal fisheries of the entire eastern coast.
- A number of heronries are formed here during monsoon, which harbour large bird populations, which come and breed here. Also, during the winters it is home for Trans-Himalayan migratory birds. Goliath heron (*Ardea goliath*) is another important bird is found in the area.
- It is known as a kingfisher's paradise as out of the 12 species of kingfishers found in the country 8 species are found here.
- Two species of horse shoe crabs (which are considered as living fossils as they are thought to be more than 400 million years old) i.e. *Tachypleus gigas* and *Carcinoscorpius rotundicauda* out of the four species found in the world are found here.
- The mangrove forests trap debris and silt and stabilise the near shore environment. Certain mangrove species also act as bio-filters as they have been found to bio-accumulate heavy metals. They filter ground-water and storm-water runoff which often contains harmful pesticides. They recharge the ground water by collecting rain water and slowly releasing it to the underground reservoir.
- The mangrove forests act as a natural shelter belt and protect the hinterland from storms, cyclones, tidal surges, sea-water seepage and intrusion.



## **Chapter 2**

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### **Legal Status of Sundarban Tiger Reserve**

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## LEGAL STATUS

### LEGAL STATUS OF SUNDARBAN TIGER RESERVE

Category	Area (in sq. Km.)	Notification No.	Legislation
<b>Sajnekhali Wildlife Sanctuary</b>	<b>362.42</b>	<b>5396-FOR, dt. 24.06.1976</b>	<b>As per sub-section (1) of section 18 of the Wildlife (Protection) Act, 1972 (53 of 1972).</b>
<b>Sundarban National Park</b>	<b>1,330.12</b>	<b>2867-FOR, dt. 04.05.1984</b>	<b>As per clause (b) of section 21 of the Wildlife (Protection) Act, 1972.</b>
<b>Critical Tiger Habitat</b>	<b>1,699.62</b>	<b>6028-FOR, dt. 18.12.2007</b>	<b>As per sub-section (4) of Section 38 V of the Wildlife (Protection) Act, 1972.</b>
<b>Buffer Area</b>	<b>885.27</b>	<b>615-FOR/11M-28/07 dt.17.02.2009</b>	<b>The Sanctuary area along with adjacent RA is a part of Buffer.</b>
<b>Total Area:</b>	<b>2584.89 sq Km</b>		

*Entire area has the status of Reserved Forest also.*

#### AREA STATEMENT OF SUNDARBAN TIGER RESERVE:

<b>(a) Core Area or Critical Tiger Habitat</b>			
<b>Sl. No.</b>	<b>Block and Compartment</b>	<b>Total Area (in sq.km.)</b>	<b>Legal Status</b>
<b>1</b>	<b>Matla (1-4)</b>	<b>176.30</b>	<b>NP</b>
<b>2(a)</b>	<b>Chamta (1-3)</b>	<b>96.32</b>	<b>RF</b>
<b>2(b)</b>	<b>Chamta (4-8)</b>	<b>124.37</b>	<b>NP</b>
<b>3</b>	<b>Chotahardi (1-3)</b>	<b>175.67</b>	<b>NP</b>
<b>4</b>	<b>Goasaba (1-4)</b>	<b>171.73</b>	<b>NP</b>
<b>5</b>	<b>Gona (1-3)</b>	<b>139.03</b>	<b>NP</b>
<b>6(a)</b>	<b>Bagmara (1)</b>	<b>24.30</b>	<b>RF</b>
<b>6(b)</b>	<b>Bagmara (2-8)</b>	<b>269.63</b>	<b>NP</b>
<b>7</b>	<b>Mayadwip (1-5)</b>	<b>273.36</b>	<b>NP</b>
<b>8</b>	<b>Netidhopani (1-3)</b>	<b>93.00</b>	<b>RF</b>
<b>9</b>	<b>Chandkhali (1-4)</b>	<b>155.91</b>	<b>RF</b>
	<b>TOTAL:</b>	<b>1699.62</b>	<b>-</b>
<b>(b) Buffer Area</b>			
<b>Sl. No.</b>	<b>Block and Compartment</b>	<b>Total Area (in sq.km.)</b>	<b>Legal Status</b>

<b>1</b>	<b>Panchamukhani (1-5)</b>	<b>176.66</b>	<b>WLS</b>
<b>2</b>	<b>Pirkhali (1-7)</b>	<b>185.76</b>	<b>WLS</b>
<b>3</b>	<b>Arbesi (1-5)</b>	<b>150.43</b>	<b>RF</b>
<b>4</b>	<b>Jhilla (1-6)</b>	<b>123.14</b>	<b>RF</b>
<b>5</b>	<b>Khatuajhuri (1-3)</b>	<b>132.41</b>	<b>RF</b>
<b>6</b>	<b>Harinbhanga (1-3)</b>	<b>116.87</b>	<b>RF</b>
	<b><i>TOTAL:</i></b>	<b>885.27</b>	<b>-</b>

## **Chapter 3**

### **Administration**

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## ADMINISTRATION

Administrative Unit	Range/Beat/Camp		No.
<b>Range</b> <i>(Territorial)</i>	<b>Bashirhat Range, Sajnekhali Wildlife Sanctuary Range, National Park (East) Range, National Park (West) Range</b>		<b>4</b>
<b>Range</b> <i>(Functional)</i>	<b>H.Q./AFR Range, Land and Law Cell, Research Range, Rampura Mobile Range, Eco-Tourism Range</b>		<b>5</b>
<b>Beat</b> <i>(Territorial)</i>	<i>Name of Beat</i>	<i>Range</i>	<b>14</b>
	<b>Chamta, Baghmara, Chandkhali (New)</b>	<b>National Park (East) Range</b>	
	<b>Haldibari, Netidhopani, Kendo</b>	<b>National Park (West) Range</b>	
	<b>Dobanki, Sajnekhali and Duttar</b>	<b>Sajnekhali Wildlife Sanctuary Range</b>	
	<b>Bagna, Burirdabri, Jhingekhali, Khatuajhuri and Harinbhanga (in Harikhali)</b>	<b>Basirhat Range</b>	
<b>Beat</b> <i>(Functional)</i>	<b>Sonakhali, Rampura H.Q., Canning H.Q., National Park H.Q. (West), National Park H.Q. (East) and Research.</b>		<b>6</b>
<b>Camp</b> <i>(Land-based Camps)</i>	<i>(Details in Chapter–X)</i>		<b>20</b>
<b>Camp</b> <i>(Floating Camps/ Check-posts)</i>	<i>(Details in Chapter–X)</i>		<b>11</b>

**Chapter 4**  
**Staff Strength**

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**STAFF STRENGTH:**

Sundarban Tiger Reserve is headed by Field Director, an officer of the rank of Chief Conservator of Forests. He is supported by one Deputy Field Director (IFS), two Assistant Field Directors, Range Officers and other frontline staff, the details of which are given in the table below:

Sl. No.	Category of Post	Sanctioned Strength	Existing	Vacant	Audited Against	Existing G.O. No.
1.	CCF & FD	1	1	-	-	PCCF, WB's O.O. No.20-Misc/2001 dt. 18.05.2001
2.	DFD	1	1	-	-	-do-
3.	AFD	2	2	-	-	1234-For, dt. 27.2.1974
4.	Research Officer	1	-	1	-	11343-For, dt. 21.12.1976
5.	Lab. Asstt.	1	-	1	-	4253-For, dt. 10.7.1978
6.	Veterinary Officer	1	-	1	-	1130-For/11B-22/88, dt.14.2.1991
7.	Head Clerk	1	1	-	-	PCCF, WB's O.O. No. 26-Misc/PMC/15, dt. 30.03.2015
8.	Accountant	1	1	-	-	-do-
9.	UDC	6	4	2	-	-do-
10.	PA	1	1	-	-	
11.	Clerk-cum-Typist	7	1	6	-	-do-
12.	Typist	1	-	1	-	-do-
13.	Forest Ranger	11	9	2	-	PCCF, WB's O.O. No. 20-Misc/2001, dt. 18.05.2001
14.	DR/Fr.	28	19	9	-	PCCF, WB's O.O. No. 07-Misc/PMC/2018, dt. 19.01.2018
15.	Head Forest Guard	8	3	5	-	-do-
16.	Forest Guard	110	50	60	-	-do-
17.	Majhi	21	05	16	-	CCF/WB's O.O. No. 45/S, dt. 24.9.1975
18.	Boatman	54	09	45	-	4192-For, dt. 19.9.1981
19.	Forest Watcher	1	-	1	-	769-For, dt. 9.2.1974
20.	Karmabandhu	1	1	-	-	5295-For/11B-41/80-I, dt. 21.7.1984

21.	Mali	1	1	-	-	769-For, dt. 9.2.1974
22.	Driver	2	1	1	-	8815-For, dt. 20.9.1976
23.	Chowkidar	2	1	1	-	769-For, dt. 9.2.1974
24.	Karmasathi	2	-	2	-	769-For, dt. 9.2.1974
25.	Peon	4	3	1	1*	*Audited against PCCF, WB. G.O. No. 760-For, dt. 9.2.1974 & 5295- For/11B-41-80-I, dt. 21.7.1984
26.	Orderly	8	3	5	-	769-For, dt. 9.2.1974 & 5926-For, dt. 2.9.1977 & 2661-For, dt. 27.4.1974
28	Engine Driver	5	3	2	-	1170-For, dt. 17.12.76 & 4128-For, dt. 19.7.1980
29	Sareng	3	2	1	-	4128-For, dt. 17.09.80 & 4192-For, dt. 19.09.1981
30.	Sukhani	2	-	2	-	1170-For, dt. 17.12.76 & 4128-For, dt. 19.07.1980
31	OMG	3	-	3	-	do-
32	Laskar	8	-	8	-	-do-
	<b>TOTAL</b>	<b>298</b>	<b>122</b>	<b>176</b>	<b>1</b>	
	Banashramik	-	12	-	-	

**Chapter 5**  
**Infrastructure & Assets**



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**Infrastructure and Assets:**

- Staff Quarter
- Other Constructions
- Communication
- Vehicle

- RT sets
- Tools and machineries
- Dart guns
- Cages
- Arms and ammunitions

Infrastructure and assets as on 31.03.2022

**Staff Quarters:**

Category	No.	Location
ROs Quarter	5	SWLS-1, BHT-1, NP(W)-1, RPP-1, ET-1 .
VOs Quarter	1	SWLS-1.
DR/FRs Quarter	9	SWLS-3, BHT.-3, NP(W)-1 , RPP-1 , ET-1.
Twin DR/FRs Building (Pucca)	3	BHT.-1
Twin FGs Quarter (Pucca)	2	NP(W)-2.
Other Staff Quarter	2	ET-2 (wooden).
Boatmans' Barrack	2	SWLS-1, RPP-1.
Staff Barrack	24	SWLS-7, BHT.-11, NP(E)-6, RPP-2, NP(W)-1
Twin Staff Barrack (Pucca)	12	SWLS-7, NP(W)-4, RPP-1,
Twin Staff Barrack (Wooden)	4	BHT.-3, RPP-1.

**Other structures:**

Category	No.	Location
Officers' Rest Rooms	4	SWLS-3 (MIC), NP(E)-1,
Subordinates' Rest House	3	SWLS-1, NP(E)-1, BHT-1
Research Range Office	1	Hqr.-1.
Office Shed (Wooden)	7	SWLS-1, BHT.-3, NP(W)-1, RPP-1, ET-1.
Veterinary Clinic	1	SWLS-1.
Mangrove Interpretation Centre	1	ET-1.
Cage trail	1	BHT.-1.
Canopy Walk	1	Dobanki
Tourist Shed & Ticket Counter	6	SWLS-2, NP(E)-1, ET-1, BHT-3
Two Unit Toilet (for tourists)	10	SWLS-2, BHT.-3, NP(W)-2, ET-3.
Watch Tower	10	SWLS-3, BHT.-3, NP(W)-2, NP(E)-2

Laboratory	1	<i>H.Q.-1.</i>
Honey Godown	3	<i>SWLS-1, BHT.-1, H.Q.-1.</i>
Store House (Wooden)	3	<i>SWLS-1, NP(W)-1, RPP-1.</i>
Pump and Generator Room	13	<i>SWLS-3 BHT.-3, NP(W)-2, NP(E)-2, ET-3.</i>
Dock Shed	3	<i>SWLS-1, NP(W)-1, NP(E)-1.</i>
RCC Water Reservoir	1	<i>SWLS-1.</i>
Common Kitchen for Staff	11	<i>SWLS-4, BHT-3, NP(E)-2, NP(W)-3.</i>
Post-Mortem Unit	1	<i>SWLS-1.</i>

**Communication:**

Category	No.	Location
Bridge	3	<i>BHT.-1 (wooden), NP(W)-2</i>
Culvert	1	<i>NP(E)-1.</i>
Jetty:		
• Concrete	25	<i>SWLS-9, BHT.-8, NP(W)-6, NP(E)-6, RPP-1.</i>

**Vehicles:**

Category	No.	Location
Maruti Gypsy (Petrol)	1	<i>H.Q.-1. (U/S)</i>
Jeep (Diesel)	1	<i>H.Q.-1.(U/S)</i>
Motor Cycle	6	<i>NP(E)-2,BHT-1,SWLS-2,H.Q.-1. (5 U/S)</i>
Catamaran	1	<i>SWLS-1.(U/S)</i>
Mechanised boat	4	<i>SWLS-2, NP(E)-1, ET-1. (4 U/S)</i>
Mechanised dingi	11	<i>SWLS-4, BHT.-2, NP(W)-3, NP(E)-2,</i>
Speed boat	14	<i>SWLS-5, BHT.3, NP(E)-2, NP(W)-4 (10U/S)</i>
Launch	4	<i>SWLS-1, H.Q.2. (1 U/S), NPE -1</i>
Accommodation Boat	5	<i>SWLS-2, BHT.-2 , NP(E)-1(U/S)</i>

**RT Sets:**

Category	No.	Location
Fixed Set	60	SWLS-12, BHT.11, NP(W)-10, NP(E)-11, H.Q.-10, RPP-2, FD/STR-1, M.L.BANASOVA-1, MV DEBRAJ-1, MV BHARATLAXMI-1, (15 U/S)
Fixed Set (different frequency)	6	H.Q.-6 (5 U/S)
High-frequency Set	4	SWLS-1, NP(W)-1, H.Q.-2(2 U/S)
Walkie-Talkie	78	SWLS-18, BHT.-20, NP(W)-15, NP(E)-9, H.Q.-14, ML BANASHOBA-1, MV DEBRAJ-1, (24 U/S)
Walkie-Talkie (different frequency)	9	Hqr.-For communication with 24-Parganas (South) Division. (6 U/S)
RT Tower	2	NP(E)2.

**List of Showing the RT Stations with Code numbers in Sundarban Tiger Reserve:**

Sl. No.	Name of Station	Details About RT Set(Fixed/ Mobile)	Make	Chassis No.
1.	Gosaba	Fixed Set	Motorola	103TRS-2391
2.	FD's Office, Canning	Fixed Set	Motorola	103TSE-1915
3.	AFD/Residence	Fixed Set	Motorola	103TSE-2109
4.	Bidya Beat	Fixed Set	Motorola	103TSE-138
5.	Bidya Boat	Mobile	Motorola	103TSE-1839
6.	Netidhopani Beat	Fixed Set	Motorola	103TSE-1854
7.	Netidhopani Boat	Mobile	Motorola	103TSE-1863
8.	Haldibari Beat	Fixed Set	Motorola	103TRS-2437
9.	Haldibari Boat	Mobile	Motorola	103TRS-2442
10.	Kendo Beat	Fixed Set	Motorola	103TRS-2436
11.	Kendo Boat	Mobile	Motorola	103TRS-1849
12.	Pakhiralaya Range	Fixed Set	Motorola	103TSE-2097
13.	RO/SWLS Boat	Mobile	Raxon	01AV12010258
14.	Sajnakhali Beat	Fixed Set	Raxon	01AV12010255
15.	BO/Sajnekhali Boat	Mobile	Motorola	103TSE-1850
16.	Sudhanyakhali Camp	Fixed Set	Raxon	01AV12010257
17.	Sudhanyakhali Boat	Mobile	Motorola	103TSE-1866
18.	Duttar Beat	Fixed Set	Motorola	103TRS-2390

19.	BO/Duttar Boat	Mobile	Motorola	103TSE-1918
20.	Dobanki Beat	Fixed Set	Motorola	103TSE-1849
21.	BO/Dobanki Boat	Mobile	Motorola	103TSE-1845
22.	Sadakkhali Camp	Fixed Set	Raxon	01AV12010252

23.	Pirkhali Camp	Fixed Set	Motorola	103TSE-1897
24.	Tentultala Camp	Fixed Set	Motorola	103TSE-1902
25.	RO/NPE Range Boat	Mobile	Motorola	103TSE1843
26.	Chamta Beat	Fixed Set	Motorola	103TSE-1729
27	BO/Chamta Boat	Mobile	Motorola	103TSE-1698
28..	Baghmara Beat	Fixed Set	Motorola	103TRS-2401
29	BO/Bagmara Boat	Mobile	Motorola	103TRS-1720
30.	Chandkhali Beat	Fixed Set	Motorola	103TRS-1714
31	BO/Chandkhali Boat	Mobile	Motorola	103TRS-0524
32	Sonakhali Beat	Fixed Set	Motorola	103TSE-1922
33	Basirhat Range/Jhilla	Fixed Set	Motorola	103TRS-2447
34	RO/ Basirhat Boat	Mobile	Raxon	01AV12010234
35	Bagna Beat	Fixed Set	Motorola	103TSE-2009
36	BO/Bagna Boat	Mobile	Motorola	103TSE-2111
37	Jhingakhali Beat	Fixed Set	Motorola	103TRS-1744
38	BO/Jhingakhali Boat	Mobile	Raxon	01AV12010215
39	Burirdabri Camp	Fixed Set	Motorola	103TRS-2420
40	BO/Burirdabri Boat	Mobile	Motorola	103TRS-1908
41.	Khatuajhuri Beat	Fixed Set	Motorola	103TRS-2361
42.	BO/Khatuajhuri Boat	Mobile	Raxon	01AV12010256

43	Harikhali Beat	<i>Fixed Set</i>	Motorola	103TRS-2421
44.	BO/Harikhali Boat	<i>Mobile</i>	Motorola	103TRS-2362
45	Kakmari Camp	<i>Fixed Set</i>	Motorola	103TRS-1441
46	Chilmari Camp	<i>Fixed Set</i>	Motorola	103TRS-2446
47.	Kaksa Camp	<i>Fixed Set</i>	Motorola	103TRS-589
48	Samshernagar Camp	<i>Fixed Set</i>	Motorola	103TRS-1745
49.	Rampura Patrol Range	<i>Fixed Set</i>	Motorola	103TSE-2010
50.	Headquarter Patrol Boat	<i>Mobile</i>	Motorola	103TSE2019
51.	Bonoshova Launch	<i>Mobile</i>	Motorola	103TSE-1865
52.	Debraj Launch	<i>Mobile</i>	Motorola	103TSE-1842
53.	Bharat Laxmi Launch	<i>Mobile</i>	Motorola	103TSE-0696
54.	Banaraj Launch	<i>Mobile</i>	Motorola	103TSE-1869

**Tools and Machineries:**

Category	No.	Location
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Computer	17	NP(W)-2, NP(E)-2,SWLS-3, BHT-2,HQ-8.
Laptop	4	H.Q.-3,NPW-1
Arc View (PalmTop)	1	H.Q.-1
GPS	46	
Printer	20	NPE-2, NPW-4, BHT-2, SWLS-3, H.Q.-9
Scanner	3	H.Q.-3.
Electronic Typewriter	1	HQ.-1.
Multimedia Projector	3	HQ.-3.
16 mm Projector	1	H.Q.-1.
Overhead Projector	2	HQ.-2.
Slide Projector	1	H.Q.-1.
DVD Player	2	H.Q.-2.
Fax Machine	2	H.Q.-2.
Xerox Machine	2	1 No.
Refrigerator	7	NP(W) -1, BHT- 1, SWLS-2, HQ-3.
Video Camera	1	Hqr.-1.
35 mm Analog Camera	12	NP(E)-2, NP(W) -1, BHT- 2, SWLS-2, HQ-5.
Digital Camera(camera trap)	8	NP(W)-4, BHT-1,SWLS-3.
Digital Camera	14	NP(E)-2, NP(W)-3,SWLS -2, BHT-2, H.Q.-5.
Still Camera	16	
Night-vision Binocular	1	H.Q.-1.
Binocular	19	NP(W)-4, BHT-4, H.Q.-5, SWLS-3, NP(E)-3.
Television Set	9	NP(W)-2 HQ-3,SWLS-4
Telephone	12	H.Q.8.,NPW-2,NPE-2
Intercom	1 Set	H.Q.-1 Set.
Mobile Set	34	.BHT-8,HQ-9,SWLS-8,NPW-5,NPE-4
Generator	13	BHT-3,SWLS-5,NPW-4,NPE-1
Pump Set	16	BHT-2,HQ-1,SWLS-7,NPW-2,NPE-4
Air-Conditioner	5	H.Q.-3,SWLS-2.

Search Light	59	SWLS-11 (2 Nos. defective),BHT-15 NP(W)-25,NPE-8.
Solar Lantern	20	SWLS-4.NP(W)-7, NP(E)-9.

### **Dart Guns:**

Category	No.	Location
Tranquillizing Gun	4	SWLS-1, BHT.-1, NP(W)-1 , Research-1.
Dart Pistol	6	SWLS-2, H.Q.-1, Research-2, BHT-1.

### **Ages:**

Category	No.	Location
Trap Cages	11	SWLS-7, BHT.-2, NP(W)-2.
Translocation Cages	9	SWLS-5,NP(W)-1.BHT-2
Squeeze Cage	1	SWLS-1, .

### **Unmanned Aerial Vehicle (UAV) Or Drone :**

Category	No.	Location
<u>Drone</u>	2	SWLS-1, BHT.-1

### **Arms& Ammunitions:**

Category	No.	Location
Rifles	70	( SWLS-14, BHT.-22, NP(W)-14, NP(E)-13 , H.Q.-7, )
Air Rifles	8	( SWLS-5, BHT.-1, NP(W)-1, Research-1.)
Guns:		
• DBBL	35	(SWLS-15, BHT.-8, NP(W)-5, NP(E)-3 , Hqr.-4, .)
• SBBL	2	(NP(E)-1. Research-1.)
Pump Action Gun	8	( SWLS-2, NP(W)-1, NP(E)-2 , H.Q.-1. BHT-2.)



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## **Chapter 6**

### **Financial Performance**

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**Budget (2021-22)**

<b>Sl No.</b>	<b>Schemes</b>	<b>Fund received in Rs.</b>	<b>Expenditure in Rs.</b>	<b>Remarks</b>
<b>1</b>	<b>CSS-Project Tiger</b>	<b>7,14,64,754.00</b>	<b>6,67,04,275.00</b>	<b>Central scheme</b>
<b>2</b>	<b>CSS-IDWH (Conservation of Batugur Baska)</b>	<b>1,12,82,100.00</b>	<b>1,10,83,657.00</b>	<b>Central scheme</b>
<b>3</b>	<b>State Development Scheme</b>	<b>2,67,61,789.00</b>	<b>2,66,91,961.00</b>	<b>State scheme</b>
<b>4</b>	<b>WB-CAMPA</b>	<b>11,95,000.00</b>	<b>11,92,172.00</b>	<b>others</b>

**WBFBCP (JICA): 2021-22**

<b>Fund received</b>	<b>Rs 29,70,000.00</b>
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<b>Expenditure</b>	<b>Rs 25,10,236.60</b>
<b>Balance</b>	<b>Rs 4,59,763.40</b>

**Status Report on NREGS during 2021-22:**

<b>District</b>	<b>24 South PGS</b>
<b>Balance Fund BF from 31.03.21</b>	<b>Nil</b>
<b>Fund received from DM during 2021-22</b>	<b>9,50,000/-</b>
<b>Name of Range</b>	<b>SWLS, BHT, NP(E) &amp; NP(W)</b>
<b>Administrative Block</b>	<b>Gosaba</b>
<b>Expenditure on Labour (Rs.)</b>	<b>2,56,72,677/-</b>
<b>Expenditure on Material (Rs.)</b>	<b>2,00,60,960/-</b>
<b>Expenditure on contingencies</b>	<b>9,50,000/-</b>
<b>Total expenditure during 2021-22</b>	<b>4,66,83,637/-</b>
<b>Person days generated</b>	<b>1,20,529</b>
<b>Number of Families benefitted</b>	<b>1550</b>
<b>Number families provided with 100 days employment</b>	<b>850</b>
<b>Balance fund as on 31.03.22 (Rs.)</b>	<b>Nil</b>

**Number of Man days Generated in various Forestry Activities in F.Y. 2020-21:**

<b>Activity (Please specify)</b>	<b>Man days generated</b>	<b>Average Labour rate</b>
<b>Forest protection, Nylon fencing &amp; others Govt. duties Camps, Beats &amp; Ranges.</b>	<b>37989 Man days</b>	<b>270/- per day</b>

ECO-DEVELOPMENT ACTIVITIES

ANNUAL REPORT 2021 – 2022

Sl. No.	Description of work	Fund in Rs.	Expenditure in Rs.
1.	Renovation of Nylon Net fencing. SWLS Range -14,300 Rmt. –Rs.11,40,450, Basirhat Range – 10,700 Rmt. – Rs.6,95,581, NPW Range – 6500 Rmt. – Rs. 4,18,056, NPE Range – 2000 Rmt. Rs. 1,24,820	24,42,000	23,78,907
2.	Food for Crocodile & other rescued animals.	50,000	45,495
3.	Repairing of Trap cages – 6 Nos.	2,48,000	2,45,000
4.	Maintenance of Solar lighting system in camps.	2,10,000	1,90,422
5.	Maintenance of Building in Camps.	5,34,000	4,85,863
6.	Maintenance of Mangrove Interpretation Centre at Sajnekhali.	2,00,000	1,67,146
7.	Maintenance of existing e-patrolling system.	3,90,000	2,78,114
8.	Repairing and maintenance of departmental vessel.	5,00,000	4,78,169
9.	Sniffer Dog - food, medicine, etc.	2,20,000	1,81,050
10.	Camera Trapping exercise – making of lure, hiring of labour & boat. Purchase of Memory card & Equipment for protection of Trap Camera.	13,90,000	8,14,894
11.	Food for Batagur baska.	13,00,000	12,72,790
12.	Fuel, Oil, Lubricants for boats.	29,60,000	29,16,949

13.	Creation of Mangrove Nursery. SWLS Range – 9,24,000 Nos. 300 Hector. Rs.3,78,143, Basirhat Range – 99 Hector- Rs. 1,24,740, NPW Range – 40 Hector – Rs.61,481, NPE Range – 40 Hector – Rs. 65,484	6,30,000	6,29,848
14.	Brick paved road – SWLS Range – 1.80 Metre wide x 132 Rmt. Rs. 2,99,235, Basirhat Range – 1.5 Metre wide x 101.85 Rmt. long. Rs.199,870	5,00,000	4,99,105
15.	Protection of fringe area from Tiger straying and rescue operation. SWLS Range – 20,000 Rmt. Rs. 7,82,316, Basirhat Range – 21,150 Rmt. Rs. 7,96,646	17,10,000	15,78,962
16.	Installation of 65 Nos. LED street light set with Post at JFMC area under SWLS Range.	2,60,000	2,51,874
17.	Re-digging of pond at JFMC area. Basirhat Range – 3 Nos. Rs. 2,99,452. NPW Range – 4 Nos. Rs. 3,00,244	6,00,000	5,99,696
18.	Earth work in filling foundation trenches. NPW Range – Breadth -3 Metre, Deep 2 Metre , Length - 140 Metre. And Breadth 1 Metre, Deep 1 Metre, Length 8 Metre.	2,00,000	1,99,767

STATUS OF GITANJALI HOUSING SCHEME					
Under Sundarban Tiger Reserve from beginning : - as on					31.03.2022.
Fund through Sundarban Tiger Conservation Foundation Trust (S.T.C.F.T.)					
Total fund received					Rs. 9,35,08,000
		( Rs.1,94,000 X 482 Dwelling units )			
Less disbursed : -		Amount	Nos.	Amount	
1	1st Instalment	Rs. 75,600	472	Rs. 3,56,83,200	
2	2nd instalment	Rs. 56,700	470	Rs. 2,66,49,000	
3	3rd instalment	Rs. 56,700	463	Rs. 2,62,52,100	
		Total disbursed		Rs. 8,85,84,300	
4	Add : Contingency allowed for -		463		
	Dwelling units have received 3 <sup>rd</sup> instalment				

		<b>Rs. 5,000</b>	<b>463</b>	<b>Rs. 23,15,000</b>	
		<b>Total expenditure</b>			<b>Rs. 9,08,99,300</b>
	<b>As on</b>	<b>31.03.2022.</b>	<b>closing balance</b>		<b>Rs. 26,08,700</b>
<b>RANGEWISE SANCTION AND DISTRIBUTION OF FUND</b>					
<b>Sl. No.</b>	<b>Name of Range</b>	<b>No. of Dwelling unit sanctioned</b>	<b>Disbursed</b>		
			<b>1st instalment</b>	<b>2nd instalment</b>	<b>3rd instalment</b>
<b>1</b>	<b>S.W.L.S.</b>	<b>187</b>	<b>178</b>	<b>178</b>	<b>174</b>
<b>2</b>	<b>Basirhat</b>	<b>161</b>	<b>160</b>	<b>158</b>	<b>156</b>
<b>3</b>	<b>N.P.W.</b>	<b>103</b>	<b>103</b>	<b>103</b>	<b>103</b>
<b>4</b>	<b>N.P.E.</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>30</b>
	<b>Total</b>	<b>482</b>	<b>472</b>	<b>470</b>	<b>463</b>
<b>BALANCE INSTALMENT TO BE DISBURSED : -</b>					
			<b>1st instalment</b>	<b>2nd instalment</b>	<b>3rd instalment</b>
<b>1</b>	<b>S.W.L.S.</b>	<b>187</b>	<b>9</b>	<b>9</b>	<b>13</b>
<b>2</b>	<b>Basirhat</b>	<b>161</b>	<b>1</b>	<b>3</b>	<b>5</b>
<b>3</b>	<b>N.P.W.</b>	<b>103</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>4</b>	<b>N.P.E.</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>1</b>
	<b>Total</b>	<b>482</b>	<b>10</b>	<b>12</b>	<b>19</b>
<b>Balance fund to be disbursed : -</b>					
	<b>Instalment</b>	<b>Amount</b>	<b>No. of unit</b>	<b>Amount</b>	
<b>1</b>	<b>1st</b>	<b>Rs. 75,600</b>	<b>10</b>	<b>Rs. 7,56,000</b>	
<b>2</b>	<b>2nd</b>	<b>Rs. 56,700</b>	<b>12</b>	<b>Rs. 6,80,400</b>	
<b>3</b>	<b>3rd</b>	<b>Rs. 56,700</b>	<b>19</b>	<b>Rs. 10,77,300</b>	

					<b>Rs. 25,13,700</b>
<b>Add contingency</b>		<b>Rs. 5,000</b>	<b>19</b>		<b>Rs. 95,000</b>
	<b>TOTAL FUND TO BE DISBURSED</b>				<b>Rs. 26,08,700</b>
<b>Total 3rd instalment issued during this year 2021 - 22</b>				<b>0</b>	
<b>Therefore contingency Rs.5,000.00 X</b>			<b>0</b>	<b>Rs. 0</b>	
<b>Total balance including contingency</b>			<b>Rs. 26,08,700</b>		
<b>Fund received on</b>		<b>28.03.2014.</b>	<b>4,67,54,000</b>	<b>on 08.07.2015.</b>	<b>4,67,54,000</b>



## Non-Timber Forest Produce

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### NON-TIMBER FOREST PRODUCE

Honey and bees-wax are the minor forest produce, which are collected during the months of April and May. Sundarban Tiger Reserve issues permits every year for honey collection. The honey so collected is deposited at different godowns of the Tiger Reserve for storage and subsequent disposal by handing over the same to West Bengal Forest Development Corporation Limited. Earlier, Golpata (*Nypa sp.*) and Hental (*Phoenix sp.*), which were collected by the fringe villagers was discontinued in 1978 and 1991 respectively. The coupe operation has been discontinued since the year 2001.

#### Non-timber Forest Produce (wild honey collection):

Sl. No.	Year	Target in Kg.	Achievement in Kg.	Collection cost per Kg.	Incidental cost per Kg.	Total cost in Rs.	+ Wastage 1%
1.	2012-13	25,000	24,750	50	13	15,59,250	
2.	2013-14	20,000	20,950	75	15	18,85,500	
3.	2014-15	60,000	47,412	100	15	54,52,380	54,524
4.	2015-16	75,000	33,515	110	15	41,89,375	41,894
5.	2016-17	20,000	19,050	115	15	24,76,500	
6.	2017-18	15,000	15,000	115	15	19,50,000	



7.	2018-19	15,000	15,000	125	15	21,00,000	
8.	2019-20	18,000	17,800	135	15	26,70,000	
9.	2020-21		389	150	15	64,185	
10.	2021 - 22	30,000	3649.7	160	17	6,45,997.00	

## Chapter 8

### Plantation

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**Mangrove Plantation in past five years:**

Year	Range	Area (in Ha.)	Location
2015-2016	BHT	8	Jhila-3, Khatuajhuri-1
	NPE	12	Chandkhali-4, Chandkhali-3 & Bagmara-4
	SWLS	2	Dulki-2
	NPW	3	Netidhpani-1
Total		25	
2016-17	SWLS	2	Chargheri
	NPW	5	Kanchanchar
	NPE	3	Chandkhali-2
Total		10	
2017-18	SWLS	4	Dayapur and Lahiripur
	NPW	6	Kanchan Char
Total		10	
2018-19	NPE	10	Chamta- 7
	NPW	10	Kanchan Char
Total		20	
2019-20	NPE	10	Chamta-8
	BHT	5	Arbesi -1
	NPW	15	Kanchan Char, Harintana Char
Total		30	

**Non-Mangrove Plantation in last five years:**

Year	Range	Area (in Ha.)	Location
2012-2018	-	NIL	-
2018-2019	-	NIL	-
2019-2020	-	NIL	-

**Plantations during- 2020-21**

Sl. No.	Scheme	Location (Range / Beat /Block/ Comptt.	Type of Plantations (bamboo, fodder, missed tree, etc.)	Creation/ Maintenance/ Advance work	Area (ha.)	R e m a r k s
State Development Schemes						
1	State Developm ent Schemes	N.P.(West) Range	Mangrove	1 <sup>st</sup> year maintenance	15 Ha.	-
		N.P.(East) Range.	Mangrove	1 <sup>st</sup> year maintenance	10 Ha.	-
		Bashirhat Range	Mangrove	1 <sup>st</sup> year maintenance	5 Ha.	-
2.	State Developm ent Schemes	N.P.(West) Range	Mangrove	2 <sup>nd</sup> year maintenance	10 Ha.	-
		N.P.(East) Range.	Mangrove	2 <sup>nd</sup> year maintenance	10 Ha.	-
3.	State Developm ent Schemes	N.P.(West)Range,	Mangrove	3 <sup>rd</sup> year maintenance	6 Ha.	-
		N.P. (East) Range	Mangrove	3 <sup>rd</sup> year maintenance	4 Ha.	-
MGNREGA Greening Sundarban						
4	MANREGA	NP(East)	Mangrove		130	-
5.	Mangrove	NP(West)	Mangrove		105	-
6.	Mangrove	SWLS	Mangrove		163	-
7.	Mangrove	Bashirhat	Mangrove		102	-

**Plantations during- 2021-22**

Sl. No.	Scheme	Location (Range / Beat /Block/ Comptt.	Type of Plantations (bamboo, fodder, missed tree, etc.)	Creation/ Maintenance/ Advance work	Area (ha.)	Remarks
<b>State Development Schemes</b>						
<b>1.</b>	<b>State Development Schemes</b>	<b>Bashirhat Range</b>	<b>Mangrove</b>	<b>Creation</b>	<b>5 Ha.</b>	<b>Bashirhat Range</b>
<b>2.</b>	<b>State Development Schemes</b>	<b>N.P.(West) Range</b>	<b>Mangrove</b>	<b>1<sup>st</sup> year maintenance</b>	<b>15 Ha.</b>	<b>-</b>
		<b>N.P.(East) Range.</b>	<b>Mangrove</b>	<b>1<sup>st</sup> year maintenance</b>	<b>10 Ha.</b>	<b>-</b>

		Bashirhat Range	Mangrove	1 <sup>st</sup> year maintenance	5 Ha.	-
3.	State Development Schemes	N.P.(West) Range	Mangrove	2 <sup>nd</sup> year maintenance	10 Ha.	-
		N.P.(East) Range.	Mangrove	2 <sup>nd</sup> year maintenance	10 Ha.	-
MGNREGA Greening Sundarban						
4.	MGNREGA Greening Sundarban	Bashirhat Range	Mangrove	Creation	15 Ha.	-
5.	MGNREGA Greening Sundarban	NP(W) Range	Mangrove	Creation	25 Ha.	-
6.	MGNREGA Greening Sundarban	NP(E) Range	Mangrove	Creation	10 Ha.	-
7.	MGNREGA Greening Sundarban	SWLS Range	Mangrove	Creation	10 Ha.	-
8.	MGNREGA Greening Sundarban	NP(East)	Mangrove	1 <sup>st</sup> year maintenance	130 Ha.	-
9.	MGNREGA Greening Sundarban	NP(West)	Mangrove	1 <sup>st</sup> year maintenance	105 Ha.	-
10.	MGNREGA Greening Sundarban	SWLS	Mangrove	1 <sup>st</sup> year maintenance	163 Ha.	-
11.	MGNREGA Greening Sundarban	Bashirhat	Mangrove	1 <sup>st</sup> year maintenance	102 Ha.	-



## Chapter 9

### Joint Forest Management

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JFMCs are an integral part of public dealings in forest areas. The people of the JFMCs are more or less dependent on the forest department in several developmental activities.

**Details regarding JFMCs:**

•	<b>No. of JFMCs</b>	<b>26</b>
•	<b>No. of JFMCs registered</b>	<b>26</b>
•	<b>No. of Revenue villages covered</b>	<b>38</b>
•	<b>No. of Family members</b>	<b>9,098</b>
•	<b>No. of SC Family members with percentage</b>	<b>8,174(89.84%)</b>
•	<b>No. of ST Family members with percentage</b>	<b>370(4.066%)</b>
•	<b>Total Forest area covered (in ha.)</b>	<b>26,474</b>
•	<b>No. of JFMC having Women as Executive Committee Members</b>	<b>26</b>

**STATUS OF ACTIVE SELF-HELP GROUP IN SUNDARBAN TIGER RESERVE:**

Name of Range	Years					
	<i>2016-17</i>	<i>2017-18</i>	<i>2018-19</i>	<i>2019-20</i>	<i>2020-21</i>	<i>2021-22</i>
National Park (W) Range	<i>20</i>	<i>20</i>	<i>20</i>	<i>20</i>	<i>20</i>	<i>20</i>
Sajnekhali Wildlife Sanctuary Range	<i>38</i>	<i>38</i>	<i>38</i>	<i>38</i>	<i>38</i>	<i>38</i>
Basirhat Range	<i>85</i>	<i>85</i>	<i>85</i>	<i>85</i>	<i>85</i>	<i>85</i>
<i>Grand Total:</i>	<i>143</i>	<i>143</i>	<i>143</i>	<i>143</i>	<i>143</i>	<i>143</i>

**Details of EDC / FPC (JFMC):**

Sl. No.	Name of EDC/FPC(JFMC)	Physical	Financial	Members(No.)		Area Protected (ha)	Remarks
				Male	Female		
1.	Shamshernagar, J.F.M.C.	-	-	262	9	2077	-
2.	Kalitala, J.F.M.C.	-	-	420	12	2100	-
3.	Hemnagar, J.F.M.C.	-	-	609	129	2220	-
4.	Bhruliapara, J.F.M.C.	-	-	535	97	1179	-
5.	Kalidaspur, J.F.M.C.	-	-	720	122	1000	-
6.	Adibasipara, J.F.M.C.	-	-	415	69	4081	-
7.	Gobindapur, J.F.M.C.	-	-	534	81	2584	-
8.	Emlibari, J.F.M.C.	-	-	478	112	1549	-
9.	Mitrabari, J.F.M.C.	-	-	510	76	1129	-
10.	Bagnapara, J.F.M.C.	-	-	592	78	1230	-
11.	Hentalbari, J.F.M.C.	-	-	583	212	1000	-
12.	Adharpara, J.F.M.C.	-	-	502	38	1280	-
13.	Bijohnagar, J.F.M.C.	-	-	1264	1075	680	-
14.	Msthurakhanda, J.F.M.C.	-	-	372	341	550	-
15.	Satyanaranpur, J.F.M.C.	-	-	1830	1642	800	-
16.	Amlamethi, J.F.M.C.	-	-	137	168	2500	-
17.	Bali, J.F.M.C.	-	-	697	488	770	-
18.	Lahiripur Chargheri, J.F.M.C.	-	-	565	335	2000	-
19.	Lihiripur Santigachi, J.F.M.C.	-	-	479	178	2400	-
20.	Luxbagan Bidhancolony Parashmoni, J.F.M.C.	-	-	588	247	520	-
21.	Pakhirala, J.F.M.C.	-	-	504	259	480	-
22.	Dayapur, J.F.M.C.	-	-	221	95	960	-
23.	Jamespur, J.F.M.C.	-	-	382	216	650	-
24.	Dulki, J.F.M.C.	-	-	279	91	640	-
25.	Sonagaon, J.F.M.C.	-	-	366	184	700	-
26.	Anpur Rajatjubilee, J.F.M.C.	-	-	369	141	700	-

**Self Help Group (only for Wildlife Wing):**



Sl. No.	Name of SHG	Physical	Financial	Women SHG Yes/No)	Remarks
1.	Babaful Swayambhar Gosti	-	-	yes	Running
2.	Jay Baba Swayambhar Gosti	-	-	-do-	-do-
3.	Dulki 5 No.	-	-	-do-	-do-
4.	Sundari	-	-	-do-	-do-
5.	Gitanjali	-	-	-do-	-do-
6.	Shree Maa	-	-	-do-	-do-
7.	Chayanika	-	-	-do-	-do-
8.	Babanata	-	-	-do-	-do-
9.	Dashabuja	-	-	-do-	-do-
10.	Banabibi	-	-	-do-	-do-
11.	Maa Manasa	-	-	-do-	-do-
12.	Baba Hari	-	-	-do-	-do-
13.	Tiger	-	-	-do-	-do-
14.	Bhagya Lakshmi	-	-	-do-	-do-
15.	Maa Basanti	-	-	-do-	-do-
16.	Banosova	-	-	-do-	-do-
17.	Banabibi	-	-	-do-	-do-
18.	Srimati	-	-	-do-	-do-
19.	Champa	-	-	-do-	-do-
20.	Rupsa	-	-	-do-	-do-
21.	Padma	-	-	-do-	-do-
22.	Jagarani	-	-	-do-	-do-
23.	Narayani	-	-	-do-	-do-
24.	Jibantari	-	-	-do-	-do-
25.	Banalata	-	-	-do-	-do-
26.	Nibedita	-	-	-do-	-do-
27.	Dakshina Roy	-	-	-do-	-do-
28.	Uma	-	-	-do-	-do-
29.	Banabithi	-	-	-do-	-do-
30.	Tiger	-	-	-do-	-do-
31.	Ram Krishna	-	-	-do-	-do-
32.	Maa Sarada	-	-	-do-	-do-
33.	Sundari	-	-	-do-	-do-
34.	Banadebi	-	-	-do-	-do-
35.	Mahamaya	-	-	-do-	-do-
35.	Maa Banabibi	-	-	-do-	-do-
37.	Jay Maa Kali	-	-	-do-	-do-
38.	Sri Sri Ramkrishna	-	-	-do-	-do-
39.	Kachipata	-	-	-do-	-do-
40.	Shyama	-	-	-do-	-do-

41.	Bangashree	-	-	-do-	-do-
42.	Kanakchanpa	-	-	-do-	-do-
43.	Akasganga	-	-	-do-	-do-
44.	Banamata	-	-	-do-	-do-
45.	Annadata	-	-	-do-	-do-
46.	Maa Bhabani	-	-	-do-	-do-
47.	Baniful	-	-	-do-	-do-
48.	Sarathi	-	-	-do-	-do-
49.	Kumari Ma	-	-	-do-	-do-
50.	Bagna	-	-	-do-	-do-
51.	Badabon	-	-	-do-	-do-
52.	Aranyashikha	-	-	-do-	-do-
53.	Amrita	-	-	-do-	-do-
54.	Mathar	-	-	-do-	-do-
55.	Bishnupriya	-	-	-do-	-do-
56.	Kalorab	-	-	-do-	-do-
57.	Sudama	-	-	-do-	-do-
58.	Sapna Sandhani	-	-	-do-	-do-
59.	Banasrijan	-	-	-do-	-do-
60.	Aranya	-	-	-do-	-do-
61.	Banaharini	-	-	-do-	-do-
62.	Srijani	-	-	-do-	-do-
63.	Khalshi	-	-	-do-	-do-
64.	Banabithi	-	-	-do-	-do-
65.	Monikanchan	-	-	-do-	-do-
66.	Koloolini	-	-	-do-	-do-
67.	Uttaran	-	-	-do-	-do-
68.	Agradut	-	-	-do-	-do-
69.	Golpata	-	-	-do-	-do-
70.	Bharat Darshan	-	-	-do-	-do-
71.	Mongal moyee	-	-	-do-	-do-
72.	Parinita	-	-	-do-	-do-
73.	Sibsankar	-	-	-do-	-do-
74.	Maa Saradamayee	-	-	-do-	-do-
75.	Sachimata	-	-	-do-	-do-
76.	Ma Mangalchandi	-	-	-do-	-do-
77.	Aaikatan	-	-	-do-	-do-
78.	Bangadarshan	-	-	-do-	-do-
79.	Gramin Bikash	-	-	-do-	-do-
80.	Bharattirtha	-	-	-do-	-do-
81.	Ma Monali	-	-	-do-	-do-
82.	Rupali	-	-	-do-	-do-

83.	Suprabhat	-	-	-do-	-do-
84.	Anandamayee	-	-	-do-	-do-
85.	Sagar	-	-	-do-	-do-
86.	Ma Trinayanee	-	-	-do-	-do-
87.	Ma Mahamaya	-	-	-do-	-do-
88.	Ma Etuidebi	-	-	-do-	-do-
89.	Mamati	-	-	-do-	-do-
90.	Nabajagaran	-	-	-do-	-do-
91.	Ma Basanti	-	-	-do-	-do-
92.	Sundarban Nabajagaran	-	-	-do-	-do-
93.	Maa Bhairabi	-	-	-do-	-do-
94.	Ma Jayanti	-	-	-do-	-do-
95.	Ma Bipattarini	-	-	-do-	-do-
96.	Ma Banashree	-	-	-do-	-do-
97.	Joy Matara	-	-	-do-	-do-
98.	Ma Annapurna	-	-	-do-	-do-
99.	Radharani	-	-	-do-	-do-
100.	Vidyasagar	-	-	-do-	-do-
101.	Sundari	-	-	-do-	-do-
102.	Banamata	-	-	-do-	-do-
103.	Banabhumi	-	-	-do-	-do-
104.	Harichand	-	-	-do-	-do-
105.	Banalaxmi	-	-	-do-	-do-
106.	Bipattarini	-	-	-do-	-do-
107.	Luxmipriya	-	-	-do-	-do-
108.	Badabon	-	-	-do-	-do-
109.	Juii	-	-	-do-	-do-
110.	Vivekananda	-	-	-do-	-do-
111.	Dishamoti	-	-	-do-	-do-
112.	Mohunya	-	-	-do-	-do-
113.	Bornali	-	-	-do-	-do-
114.	Golpata	-	-	-do-	-do-
115.	Nibedita	-	-	-do-	-do-
116.	Banabarta	-	-	-do-	-do-
117.	Hental	-	-	-do-	-do-
118.	Rajani	-	-	-do-	-do-
119.	Jibandwip	-	-	-do-	-do-
120.	Tiger	-	-	-do-	-do-
121.	Nabadiganta	-	-	-do-	-do-
122.	Tiya	-	-	-do-	-do-
123.	Mina	-	-	-do-	-do-
124.	Ma Ganga	-	-	-do-	-do-

125	Nirmala	-	-	-do-	-do-
126	Shuchetana	-	-	-do-	-do-
127	Akhata	-	-	-do-	-do-
128	Bijaya	-	-	-do-	-do-
129	Sundari	-	-	-do-	-do-
130	Banolata	-	-	-do-	-do-
131	Banadebi	-	-	-do-	-do-
132	Sagarika	-	-	-do-	-do-
133	Biswakarma	-	-	-do-	-do-
134	Bhagabati	-	-	-do-	-do-
135	Saradiya	-	-	-do-	-do-
136	Bissha Mundha	-	-	-do-	-do-
137	Kalimata	-	-	-do-	-do-
138	Ranirashmoni	-	-	-do-	-do-
139	Srima	-	-	-do-	-do-
140	Joyma Durga	-	-	-do-	-do-
141	Kshudiram	-	-	-do-	-do-
142	Annapurna	-	-	-do-	-do-
143	Ma Laxmi	-	-	-do-	-do-

**Forest Village and Encroachment during 2021-22:**

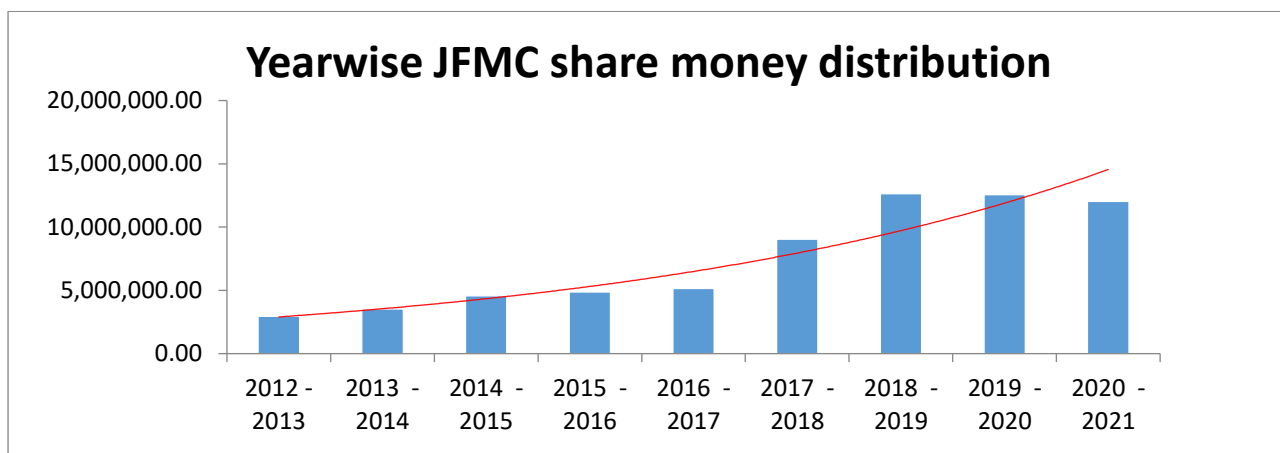
Sl. No.	Name of Forest Village	Location (Block/ Comptt.)	Type of Encroachment	Total Area (ha.) encroached till 31.03.22	Total Area (ha.) recovered till 31.03.21	Remarks
Not applicable						

The share money for the eco-developmental works in different JFMCs is distributed by the forest department from the total collection from the eco-tourism. Actually 40% from the eco-tourism collection was given to the JFMCs according to the rules.

**JFMC SHARE MONEY DISTRIBUTION: 2021-22**

Accounting year	Amount in Rs.
2012 - 2013	29,43,035.00
2013 - 2014	35,24,193.00

<b>2014 - 2015</b>	<b>45,71,925.00</b>
<b>2015 - 2016</b>	<b>48,75,365.00</b>
<b>2016 - 2017</b>	<b>51,56,735.00</b>
<b>2017 - 2018</b>	<b>90,48,338.00</b>
<b>2018 - 2019</b>	<b>1,26,32,244.00</b>
<b>2019 - 2020</b>	<b>1,25,51,554.00</b>
<b>2020 - 2021</b>	<b>1,20,40,330.00</b>
<b>TOTAL</b>	<b>6,73,43,719.00</b>



Sundarban is a cyclone prone area, every year tropical and sub-tropical cyclones struck the fringe villages and thereby the life hampers. Here are some pictures of damages caused by the cyclones in last few years.













Some initiatives were taken by the STR division for the betterment of the livelihood, viz. animal husbandry, cotton cloth (Gamcha) making, paper plate making with new machinery etc.











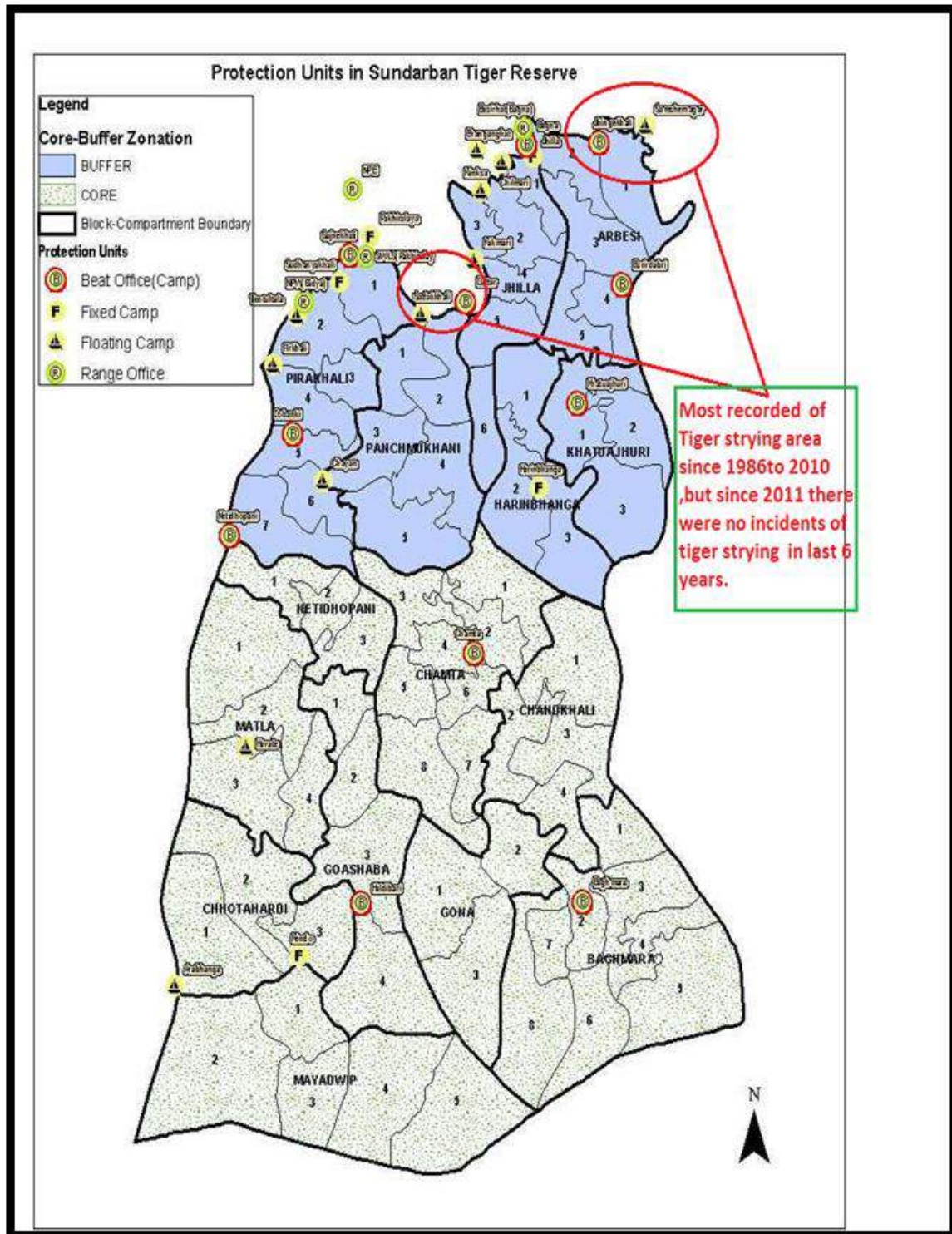


**Meetings and Social Contact with SHGs and JFMCs**





## Chapter 10 Forest Protection



### Forest Protection:

- List of anti-poaching camps
- Protection strategy
- Offence scenario during last few years
- E-Patrolling at STR

Land-based Camps			Floating Camps/ Check-Posts		
Sl.No.	Location	Range	Sl.No.	Location	Range
1	Pakhiralaya	Sajnekhali Wild Life Sanctuary Range	1	Kakmari	Bashirhat Range
2	Sajnekhali				
4	Dobanki				
5	Sudhanyakhali		2	Chilmari	
6	Jhilla	Bashirhat Range	3	Pirkhali	Sajnekhali Wild Life Sanctuary Range
7	Bagna		4	Sadakkhali	
8	Jhingekhali		5	Tentultola	
9	Khatuajhuri-Harinbhanga		6	Chayan (Moving Patrolling Camp)	
9	Burirdabri				
10	Harikhali				
11	Samsernagar		7	Banaraj (Moving Patrolling Camp)	NP East Range
12	Kaksa				NP West Range
13	Canning H.Q.	H.Q Range			
14	Chamta	National Park (East)			
15	Bagmara				
16	Gosaba H.Q.				
17	Sonakhali				
18	Chandkhali				
19	Haldibari	National Park (West)			
20	Netidhopani				
21	Bidya				
22	Kendo				



23	Rampura	Rampura Mobile Range			
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One State Armed Police Camps posted at Jhila under Bashirhat Range headquarters. It also functions as a Special Strike Force and assists the field staffs in patrolling, raids and tiger rescue operations.

- **State Armed Police Force Camp established in the year: 2000**
- **No. of State Armed Police personnel posted: 5+1**

**Rank of highest ranked officer posted in the Camp: Head Constable**

Two BSF camps have been established at Khatuajhuri and Bagna camps under Bashirhat Range. They along with the field staff carry out joint patrolling operations besides performing their day to day duties.

**No. of BSF personnel posted: 6+1(Khatuajhuri)and 9+1(Bagna Camp)**

**Name of highest ranked officer posted in the Camp: Sub-Inspector**

**Details of Offence & Seizure:**

Sl. No.	FOREST OFFENCE	2017-18	2018-19	2019-20	2020-21	2021-22
1.	POR (in Nos.)	2		04		2196
2.	COR (in Nos.)	2581	2254	2090	2273	-
3.	UDOR (in Nos.)	14	05	11	04	03
4.	No. of Persons Arrested	4	-	24	-	-
5.	Incidences of Firing by Staff ( <i>in Round</i> )	12	-	-	-	-
6.	No. of Offender Died	NIL	-	-	-	-
7.	No. of Offender Injured	NIL	-	-	-	-
8.	No. of Forest Staff Killed	NIL	-	-	-	-
9.	No. of Forest Staff Injured/Assaulted	NIL	-	-	-	-
10.	Total Compensation Realised ( <i>in Rs.</i> )	20,54,850.00	1736400.00	1671850.00	2115500.00	2009330.00
11.	Quantity of Timber Seized ( <i>Sawn &amp; Log</i> )	0.36m <sup>3</sup>	-	5.6385 m <sup>3</sup>	-	0.001 m <sup>3</sup>
12.	No. of Vehicle Seized	NIL	-	-	-	-
13.	No. of Dingi Seized	13	05	7	04	-
14.	No. of Mechanised Boat / Trollor Seized	1	-	-	-	01
15.	No. of Cattle Seized	17	02	21	05	-

**Wildlife Offence Cases (under Wildlife Protection Act, 1972) during 2021-22:**

POR	COR	UDOR	Person arrested	Conviction details (if any)
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Nil	2191	03	Nil	Nil
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**b) Seizure of wildlife (2021-22) :- Nil.**

**c) Brief write-up regarding important offence cases during 2021-22:- Nil.**

**d) Details of wildlife cases (Wildlife Protection Act, 1972) under trial (till 31.03.2022) in different Courts of West Bengal (as per following proforma):- (Attached in separate sheets)**

**Details of seized and Confiscated of Vehicles carrying illegal Forest Produce during 2021-22:**

Type of Vehicle	HMV (Truck/Bus etc.)		LMV (Jeep/ Car etc.)		Hand Van/Thela Rickshaw/ Cycle		Boat		Other (PI) Specify		Remarks
	Seized	Confiscated	Seized	Confiscated	Seized	Confiscated	Seized	Confiscated	Seized	Confiscated	
Number of Vehicles(Boat)	Nil	Nil	Nil	Nil	Nil	Nil	1	Nil	Nil	Nil	Nil
Quantity of Timber(M <sup>3</sup> )	Nil	Nil	Nil	Nil	Nil	Nil	20 C <sup>M</sup>	Nil	Nil	Nil	Nil
Quantity of Fire Wood(M <sup>3</sup> )	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Value of Timber (in Rs.)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Value of Fire Wood (in Rs)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

**Number of cases pending and Disposed by the Courts during 2021-22:**

Type of case	Number of Cases Pending as on 01/04/2022	Number of new Cases during 2021-22	Total number of Cases	Cases disposed during 2021-22	Balance case pending as on 31/03/2022
Indian Forest Act	120 nos	Nil	120 nos	Nil	120 nos
Wild life Protection	93 nos	Nil	93 nos	1	92 nos
Forest Conservation Act	Nil	Nil	Nil	Nil	Nil
Number Forest Act	Nil	Nil	Nil	Nil	Nil

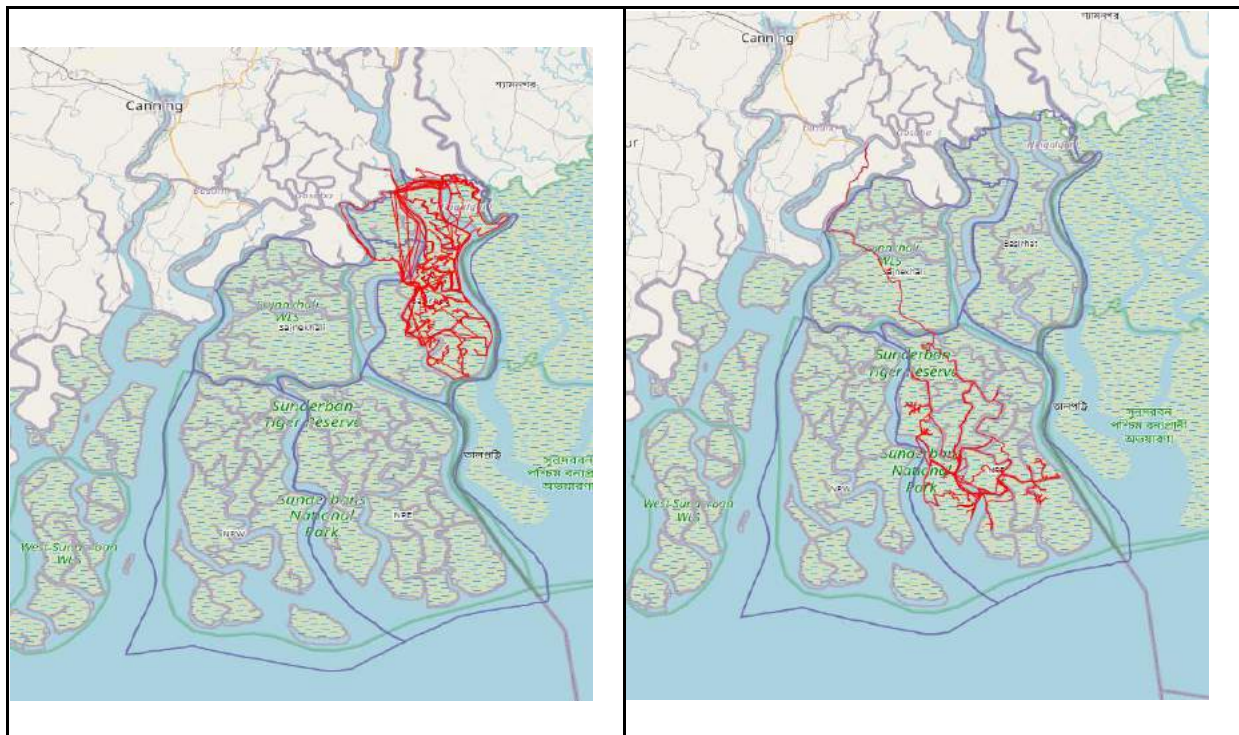
### ***Introduction of E-Patrolling at STR:***

Age-old pattern, procedure and practise of traditional patrolling and wildlife monitoring had some limitations with only use of manual pen, pencil and papers along with prolonged and time-bound use of RT system. Main constraints were time dependency on RT network, errors and time-consumptions in manual entry, possibilities of data manipulation and absence of real-time data. It was to overcome all of these limitations E-patrol/ Smart patrolling was introduced in Sundarban Tiger Reserve in this year. In this new system every camp has been given a smart phone with a mobile application (encrypted in Java language) installed on it for monitoring and patrolling purpose. With this software/application the front-end staffs are recording their every possible activity like patrolling, fencing checking, night patrols, offence detections wildlife sightings etc. That real time patrolling data, which has been well tabulated, analysed and synchronised into the main server database, can directly be monitored instantly by the monitoring applications loaded in the smart phones of senior hierarchy. Other than that multiple reports of versatile types and patterns can easily be fetched out from that said database at any time through the web.

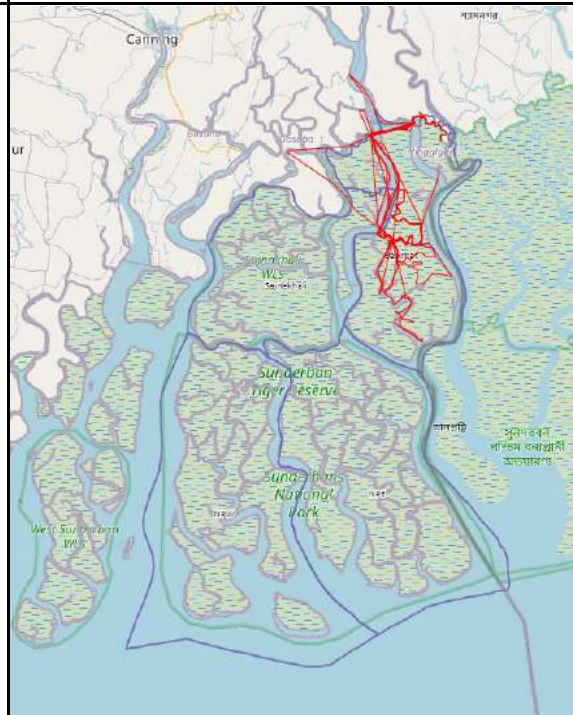
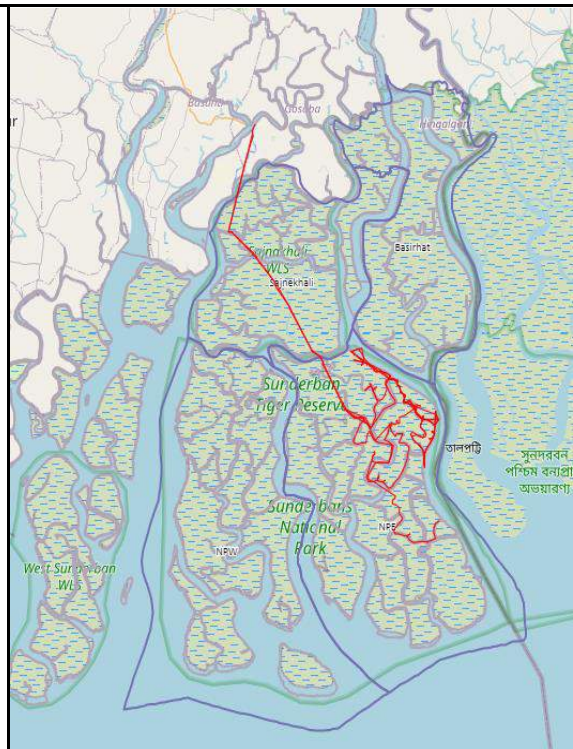
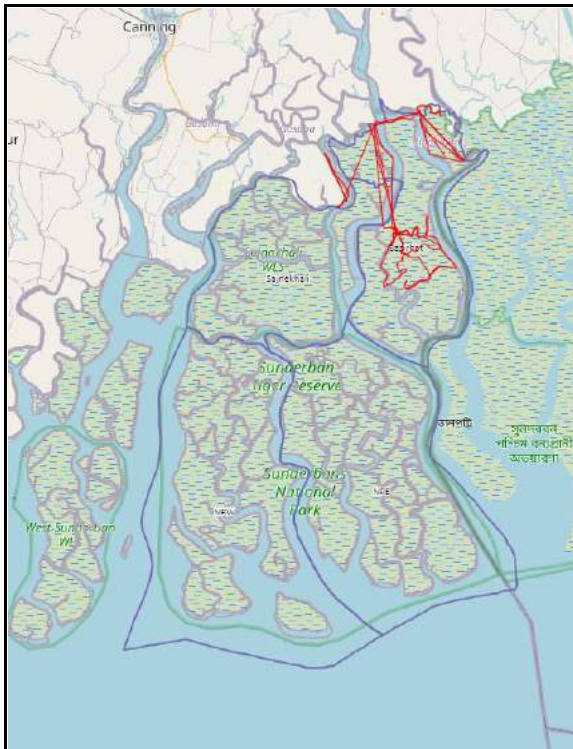
### **E-Patrol Android Application Software:**

In last FY 2021-22, Wildlife Institute of India made M-STriPES based android patrolling application 'E-Patrol' has been installed in new mobile phones and the field staffs are well trained with this. Initially it faced several challenges due to global positioning system and data loading but after rigorous training the field staff overcomes the situation.

Here are some images of patrolling in different ranges in different months in FY 2021-22:



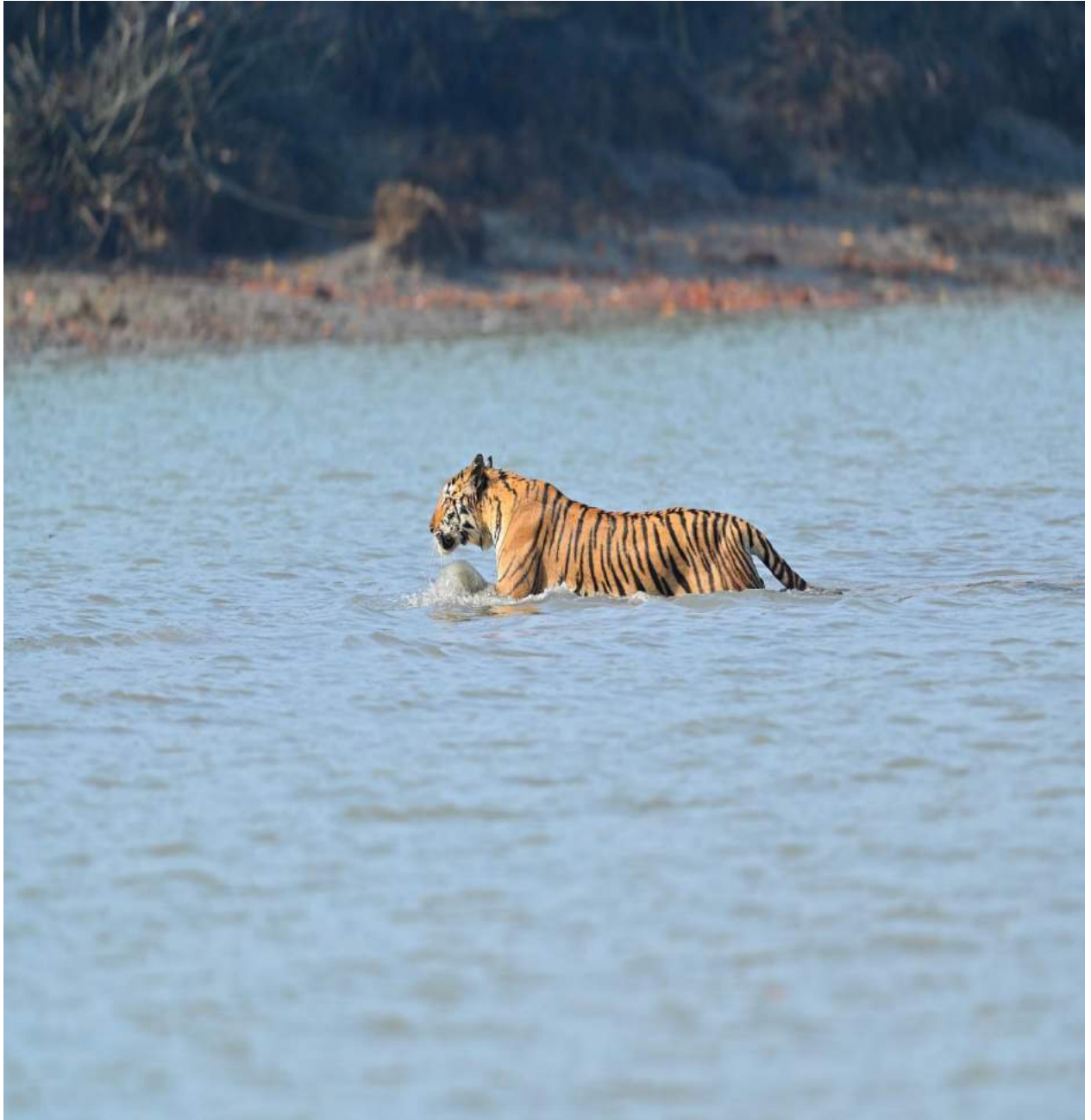




**Chapter 11**

**Wildlife Management**

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- **DEATH CASES ( OTHER THAN POACHING)**
- **POACHING CASES**
- **WILD ANIMALS ( OTHER THAN TIGER) RESCUED**
- **TIGER CAPTURED/IMMOBILIZED**
- **TIGER STRAYING INCIDENTS**
- **BATAGUR BASKA CONSERVATION PROJECT**

**Death of wild animals during 2021-22:**

Sl. No.	Date	Species (with details - age, sex etc.)	Place of incidents	Details of cause of death (as per Post Mortem Report)	Category (Natural, Poaching, Accidental, Retaliatory killing, Other)	Whether any body part (horn / tusk / hair/ teeth/ meat/ hoof/ skin, etc.) is missing
1.	30.5.21	Male Tiger (11 years old, Length – 8.4 ft, Weight 101 kg.)	RO/Bashirhat (Harikhali camp in Harinbhanga-2 compartment)	Disposed off after performing p.m Examination at 12:40 p.m, on the same day.	Cardio-respiratory failure	No
2	10.02.22 at about 1:30 p.m	Carcass of Batagur Baska	RO/NP(W)	Disposed off after performing p.m. Examination	Natural	No

**POACHING CASES IN SUNDARBAN TIGER RESERVE:**

YEAR	NAME OF ANIMAL	NUMBER
2015-16	Spotted Deer	2 Nos. (Accused arrested & POR drawn)
2016-17	NIL	NIL
2017-18	NIL	NIL
2017-18	NIL	NIL
2018-19	NIL	NIL
2019-20	NIL	NIL
2020-21	NIL	NIL
2021-22	NIL	NIL



### Rescue of wild animals during 2021-22:-

Sl. No.	Date of Rescue	Species	Number	Remarks
1	09/04/21	One King Cobra	1	Released in nature after proper treatment by Dr. Sankar Sekhar Biswas, V.O. STR.
2	12/04/21	One Adult Male Jungle Cat	1	
3	14/04/21	One Monocled Cobra	1	
4	18/04/21	One Hawk Eagle	1	
5	19/04/21	One Juvenile Jungle Cat	1	
6	26/04/21	One Adjutant Stork	1	
7	27/04/21	Two Adult Male Jungle Cat	1	
8	06/06/21	Olive Ridley	1	
9	06/06/21	Small Olive Ridley	1	
10	07/06/21	Olive Ridley	1	
11	21/06/21	Monocled Cobra	2	
12	23/06/21	Monocled Cobra	1	
13	25/06/21	Juvenile male Monkey	1	
14	04/07/21	Water monitor lizard	1	
15	17/07/21	Olive Ridley	1	
16	09/08/21	Water monitor lizard	1	
17	30/08/21	Juvenile indian Flapshell Turtle	1	
18	01/09/21	Olive Ridley	1	
19	10/09/21	indo-gangetic Flapshell Turtle	1	
20	23/09/21	Water monitor lizard	1	
21	29/09/21	Spotted Deer	1	
22	10/10/21	one adult common krait	1	
23	14/10/21	Juvnile Jungle cat	1	
24	28/10/21	one adult Jungle cat	1	
25	14/11/21	Juvnile Jungle cat 4 nos	2	
26	18/11/21	Juvnile Jungle cat ( 2 days old )	1	
27	20/11/21	Juvnile Jungle cat 2 nos (4 days)	2	
28	24/11/21	Spotted Deer	1	
29	30/11/21	Otter	1	
30	01/12/21	Owl	1	

### Radio collaring of Tigers / Elephants during 2021-22:

Date of radio collaring	Location	Animal description (species, age, sex, etc.)	History of the animal	Remarks
Nil				

**DNA fingerprinting of tigers in Sundarban Tiger Reserve / 24-Parganas (South)**  
**Division – details: - Nil.**

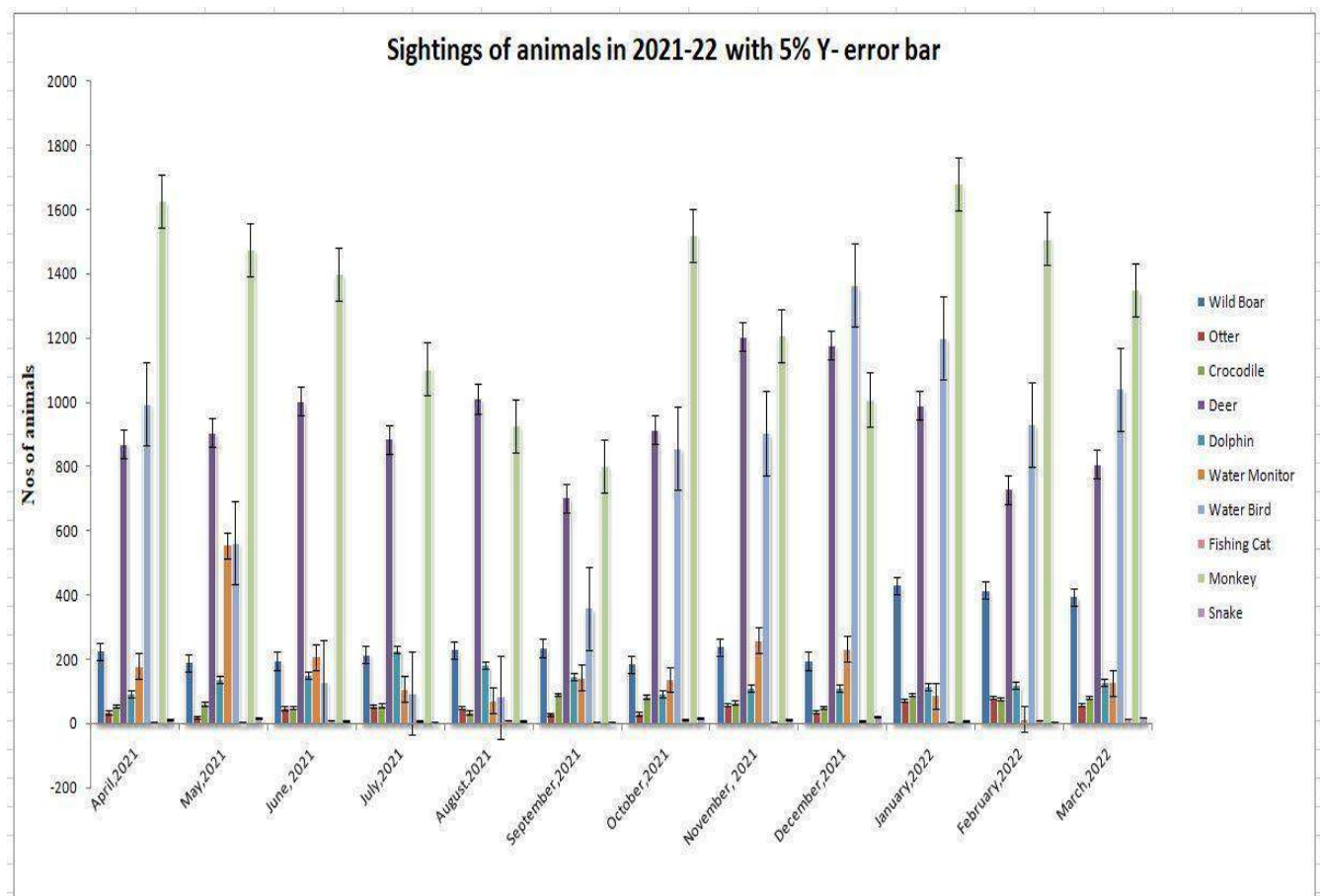
**Census of Wildlife:-Latest Census figures of wild animals & birds:-**

Year of Census	Species	Male	Female	Sex unidentified	Calf /cub	Total
2021-22 Phase IV Tiger Estimation (aite)	As a part of All India Tiger Estimation, Phase – I exercise, data pertaining to direct sighting, sign survey and vegetation has been collected to throughout Sundarban Tiger Reserve and three ranges of 24 Parganas forest division. The Phase- III of camera trapping in these areas was done as per the guidelines of NTCA. The data has been send to Wildlife Institute of India for further analysis.					

**Record of sightings of endangered wild animals viz. Vulture, Dolphin, Lesser Cats (Leopard Cat, Fishing Cat, etc.), Pangolin (Chinese/Indian), Bear, Serow etc.**

**Direct Sighting of other Animals in respect of Sundarban Tiger Reserve (2021-22)**

Month	Wild Boar	Otter	Crocodile	Deer	Dolphin	Water Monitor	Water Bird	Fishing Cat	Monkey	Snake
April,2021	225	35	55	871	93	178	995	6	1627	13
May,2021	190	20	61	905	137	556	562	3	1476	15
June, 2021	195	47	49	1003	151	207	131	9	1398	9
July,2021	215	55	57	885	229	107	95	7	1103	5
August.2021	230	49	34	1011	182	71	83	11	927	7
September,2021	235	29	91	703	146	142	359	5	801	3
October,2021	185	30	83	916	93	137	857	13	1521	16
November, 2021	239	59	65	1205	111	260	904	4	1207	11
December,2021	195	36	51	1178	109	233	1364	8	1009	21
January,2022	431	71	89	991	114	87	1201	6	1679	7
February,2022	415	81	76	729	121	13	931	11	1509	5
March,2022	395	59	81	809	127	127	1042	14	1349	19



## BATAGUR BASKA CONSERVATION PROJECT

### ❖ Objective(s) :

- To conserve the gene pool of the species,
- Restock, and reintroduce the species in the wild,
- To re-establish a self- sustaining population in its natural habitat.
- Importance of Setting up Assurance Colonies:-

### General

- ☐ In order to avoid congestion and contagious disease breakdown
- ☐ Depredation,
- ☐ Over-crowding of individuals hatching every year .

### Natural calamities





Sundarban is a storm prone area it became compulsory to set up assurance colony in order to avoid mishaps. In 2009 Alia hit Sundarban 1male was lost due to overflow of the breeding pool.

To strengthen the conservation effort, the division made a vision plan, as follows-

### **Batagur baska Vision Plan 2030:**

PLAN OF ACTION	PROPOSED TIMELINE
<b>Objective 1:</b> To strengthen the conservation breeding program by developing model facilities	
Developing conservation breeding infrastructure in Sundarbans ( <i>viz.</i> breeding, incubation, nursery, quarantine and veterinary care facilities for accommodating 100 breeding adults)	2022-2024
Constructing an integrated conservation facility at Jhila and satellite centres at Chamta and Sajnekhali (only Sajnekhaliis open for tourists)	2022-2026
Procuring essential equipment, developing SOPs (standardization of salinity, pH, TDS, etc. of different facilities) and shifting animals for husbandry and management	2022-2023
<b>Objective 2:</b> To sustain the re-wilding of captive-reared turtles with robust monitoring protocols	
Raising 200 to 300 juveniles every year until they attain the size of a minimum of 2 kg	2022-2030
Sustaining phase-wise release to target wild populations of 800-1000 individuals with pre-release health assessments	2022-2030
Creating soft-release facilities by utilizing natural creeks followed by post-release monitoring of 10-20 individuals	2022-2030
<b>Objective 3:</b> To build capacity and impart awareness among selected target groups for turtle conservation	
Training of Frontline FD Staff for husbandry and sensitization of licensed fishermen, JFMC members and the general public	2022-2025
Encouraging community based ecological monitoring through licensed fishermen	2022-2030
Designing quality Information, Education and Communication materials (IEC), displays and community incentivization products	2022-2025
<b>Objective 4:</b> To protect key nesting and highly utilized habitats	
Evaluating critical habitats based on data gathered through satellite tracking	2022-2024
Mapping preferred nesting and foraging habitats of <i>Batagur baska</i>	2023-2029
Implementing habitat management practices (protecting and de-weeding historic nesting beaches, regulating fishing pressure, etc.)	2022-2030
<b>Objective 5:</b> To perform research influencing conservation management decisions	
Conducting scientific studies on temperature sex determination, disease screening, eco-tolerance, parasitic load, behavioural ecology, etc. on different life stages	2022-2030
Preparing genetically informed assurance colonies	2022-2025

Evaluating soft-release strategies involving various sites, size classes for refining survival and dispersal studies	2022-2025
<b>Objective 6:</b> To formulate strategies for initiating a trans-boundary conservation program with Bangladesh	
Developing an information exchange system to share technical know-how with Bangladesh Forest Department	2022-2025
Holding independent meetings and utilising CoP/SAARC transboundary platforms for concerted actions	2022-2025
Exchanging animals with other facilities to infuse new bloodlines in conservation breeding project	2022-2025

### **The process of Ex-Situ Conservation of *Batagur baska* in Sundarbans:**

1. Identification and transfer of gravid females from adult ponds to the hatchling enclosure:
2. Generally, the adult Northern Terrapin females are found to be gravid during the first week of March.
3. These individuals are then shifted to an artificial sand beach at one corner of the hatchling pool, for laying eggs.
4. The hatchling pool is well protected with nylon net fencing and mosquito-net as a preventive measure from harsh weather and predators.
5. By the third week of March the females lay their eggs in clutches of 19-37. By the first week of April, all individuals finish laying their eggs after which the adult females are then transferred to back to the adult pond.
6. Hatching of the eggs and tending of the hatchlings and transfer to yearling pool:
7. The eggs laid by the females are kept on the artificial sand beach and a temperature of about 33°Celsius is maintained. The incubation period was found to about 60-66 days.
8. A strict surveillance of the eggs is maintained during the entire incubation period.
9. After the eggs hatch, i.e. during the end of May, the hatchlings are collected and shifted to the hatchling enclosure.
10. The artificial beach area is also monitored for about five days from the time the first hatchling hatch out of the eggs, however, it was observed that all the eggs hatch in about two days.
11. After the transfer of all the hatchlings to the hatchling enclosure, all the individuals are carefully tended and nurtured with proper food (*Ipomea* shoots and pumpkin, cut into small pieces) for the next six months.
12. A one day old hatchling was found to measure about 6.5 cm in length and 6.5 cm in breadth. After one year, when hatchlings were observed to attain a weight of about 240 grams, they are transferred to the yearling ponds.

### **Transfer to adult pond:**

When the individuals age to about two years and attains a weight of about one kilogram, they are finally transferred to the adult pond. This stage has also been deemed appropriate for soft release of the turtle to its natural habitat.

❖ **Present stock in Assurance Colony 2021-22:**

<b>Assurance Colony</b>	<b>Male</b>	<b>Female</b>	<b>Unidentified</b>	<b>Total</b>
Chamta	4	7	---	11
Jhingekhali	3	13	---	16
Netidhopani	2	26	6	34











■ জিপিএস ট্র্যাকমিটার বসিয়ে সুন্দরবনের নদীতে ছেড়ে দেওয়া হচ্ছে কচ্ছপগুলিকে। ছবি: প্রসেনজিৎ সাহা

# কচ্ছপের গায়ে জিপিএস বসিয়ে ছাড়া হল নদী-খাঁড়িতে

নিজস্ব সংবাদদাতা

সুন্দরবন: কচ্ছপের শরীরে জিপিএস ট্র্যাকমিটার লাগিয়ে নদী-খাঁড়িতে ছাড়া হল। সুন্দরবন ব্যাঘ্র প্রকল্পের উদ্যোগে বুধবার বাজিগুড় বাসকা বা পোড়া কাঠ নামে বিলুপ্তপ্রায় প্রজাতির ১০টি কচ্ছপের শরীরে রেডিও ট্র্যাকমিটার বসিয়ে প্রাকৃতিক পরিবেশে ছাড়া হয়েছে। বিলুপ্তপ্রায় এই কচ্ছপের গতিবিধি, বংশবিস্তার এবং পরিবেশের সঙ্গে তারা কী ভাবে

বিলুপ্তপ্রায়। সজনেখালিতে একটি পুকুর তৈরি করে সেখানে কয়েক বছর ধরে এই প্রজাতির কচ্ছপের সংরক্ষণ ও প্রজননের ব্যবস্থা করেছে ব্যাঘ্র প্রকল্প। ১২টি কচ্ছপকে সংরক্ষণের পরে আপাতত তাদের ছানাপোনা-সহ মোট সংখ্যাটি ৩৭০। দোবাঁকি, খাটোয়াবুড়ি ও হরিখালিতেও এই প্রজাতির কচ্ছপ সংরক্ষণ ও প্রজননের ব্যবস্থা করেছে বন দফতর।

সুন্দরবন ব্যাঘ্র প্রকল্পের আধিকারিকেরা জানিয়েছেন, প্রজননে

প্রকল্পের ডেপুটি ফিল্ড ডিরেক্টর জোন্স জাস্টিন বলেন, “এই বিলুপ্ত প্রজাতির কচ্ছপের সফল প্রজনন ইতিমধ্যেই আমরা করেছি। এরা কোন পরিবেশে থাকতে ভালবাসে, কী ভাবে বেঁচে থাকে এবং কী ভাবে প্রকৃতিতে নিজেদের বংশবিস্তার করে— সে সম্পর্কে আরও তথ্য সংগ্রহ করতে জিপিএস ট্র্যাকমিটার তাদের শরীরে বসানো হয়েছে।” আগামী দিনে আরও বাজিগুড় বাসকা প্রজাতির কচ্ছপ সুন্দরবনের নদী-খাঁড়িতে ছাড়া হবে বলে জানিয়েছেন তিনি।

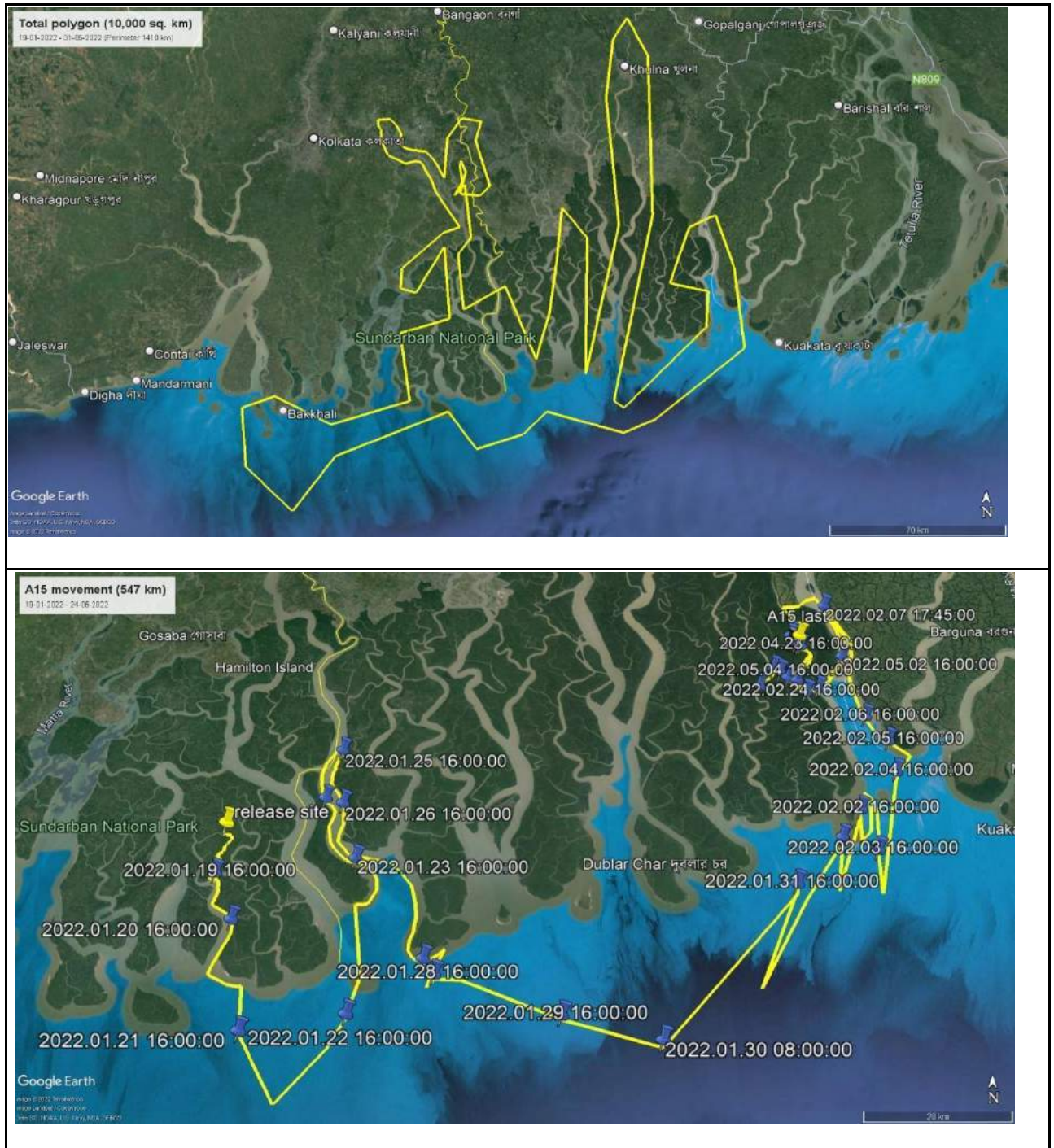
এ দিন সুন্দরবন ব্যাঘ্র প্রকল্পের ফিল্ড ডিরেক্টর তাপস দাস, সুন্দরবন বায়োস্ফিয়ার রিজার্ভের যুগ্ম ডিরেক্টর

আনন্দবাজার পত্রিকা  
২০/১/২০২২ // পৃষ্ঠা : ৬

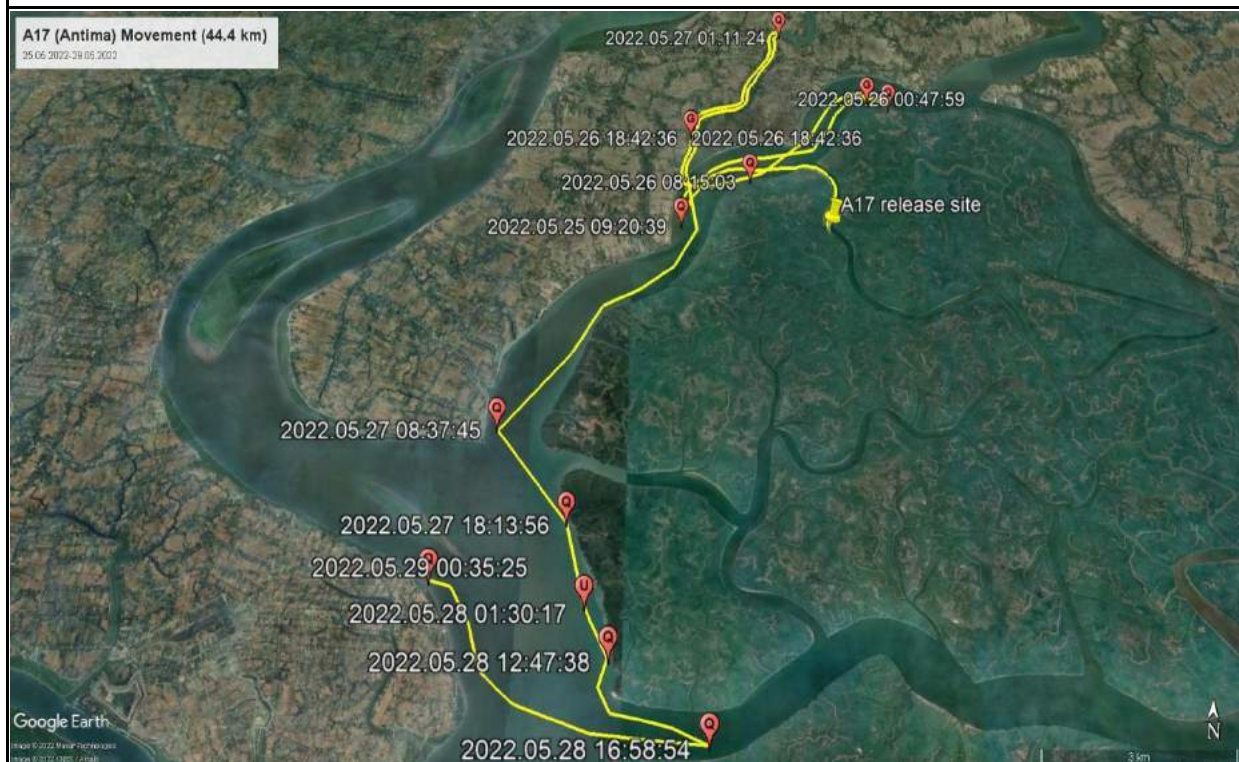
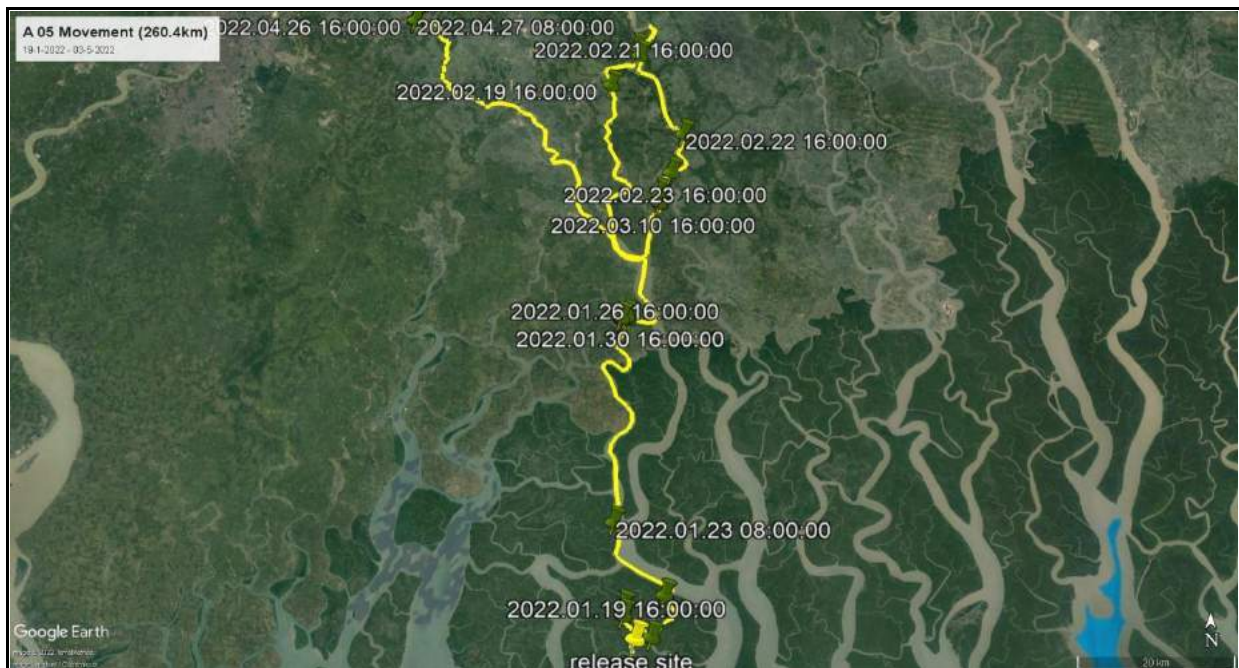


## Satellite tagged tracking map of Batagur baska individuals in Sundarban Tiger Reserve:

In the FY 2021-22 ten terrapins are satellite tagged, their movements are shown in the following maps:







❖ **Present Status of Conservation breeding of Batagur baska in Sundarban Tiger Reserve 2021-22:**

<b>Camp</b>	<b>No of <i>B. baska</i></b>	<b>No of Ponds</b>	<b>Water Source</b>
<b>Sajnekhali</b>	223	10	Rain
<b>Dobanki</b>	40	1	Sweet water
<b>Netidhopani</b>	34	1	Sweet water
<b>Jhila</b>	12	1	Connected with river water
<b>Jhingekhali</b>	16	1	Rain
<b>Harikhali</b>	43	2	Sweet water
<b>Chamta</b>	11	2	Assurance colony
<b>Total</b>	379		





Eggs of Northern River Terrapin on artificially prepared sand beach



Freshly hatched Northern River Terrapin being measured



Hatchlings of Northern River Terrapin

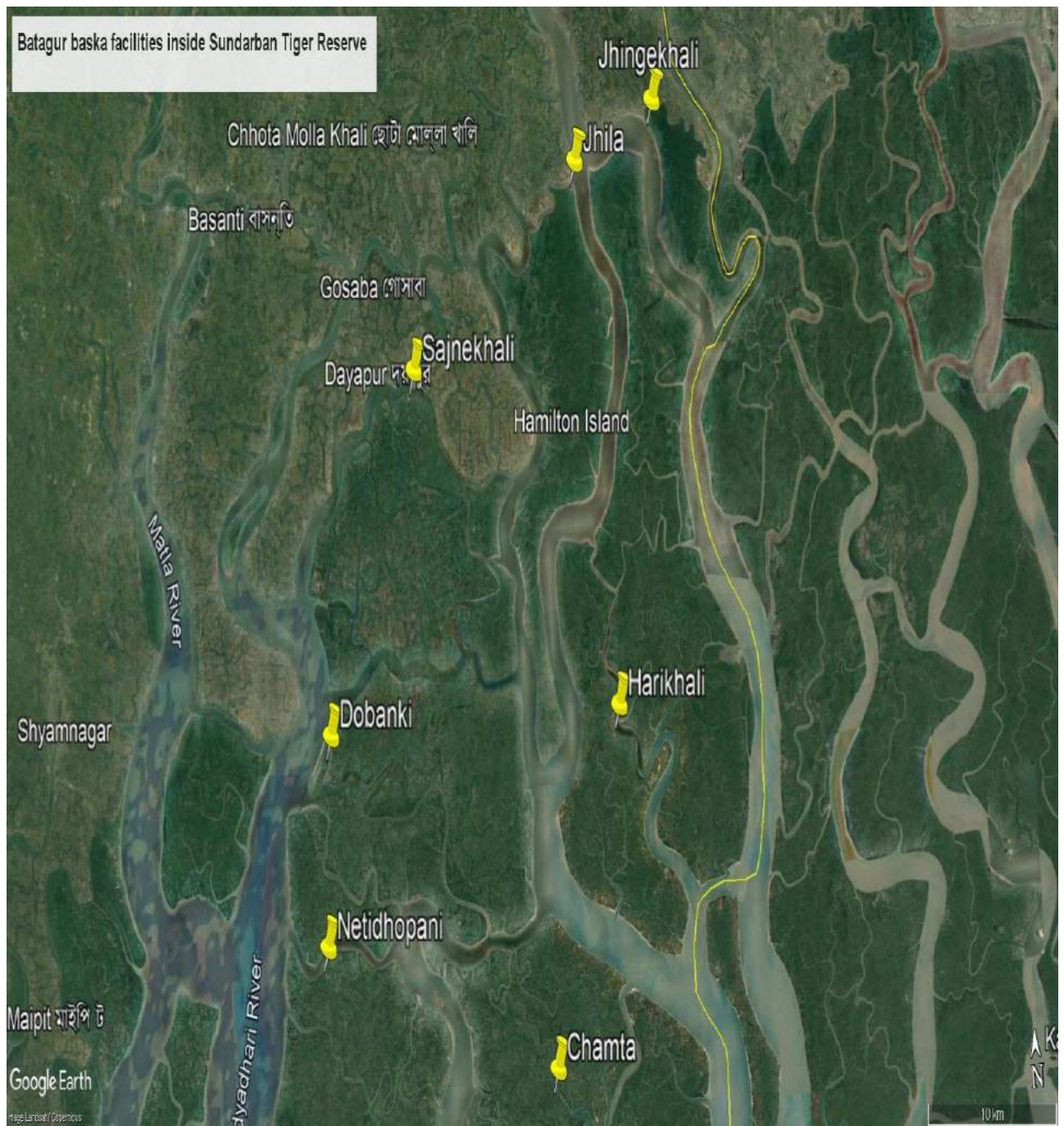


Yearlings of Northern River Terrapin in the Yearling pool



Transfer of the adult females back to the adult pond





**Map Showing the Assurance Colonies of *Batagur baska* in Sundarban Tiger Reserve.**



## Chapter 12

### Man Animal Conflict

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**Man-Animal Conflict (2021-22):-**

**Human Casualties by wild animal (2021-22):-**

Sl. No.	Name of the person died with details (age, sex, address etc.)	Date	By which species	Place of incidence	Compensation paid (in Rs.) (during 2020-21)
1.	Name - Dinabandhu Mondal S/o. Santosh Mondal, Vii. + P.O. – Satjeliaya 2 No. P.S. – S. B. Coastal, 24 PGS(S).	15.07.2021	Tiger	Jhilla –VI under SWLS range.	5,00,000 (Paid)
2.	Name – Anna Das, S/o. Kshudiram Das, Vill.- Khariat Abad, P.S. Sandeshkhali, 24 North PGS	19.08.2021	Tiger	Jhila –I, Muribagan Side Khal under BHT range.	5,00,000 (Paid)
3.	Name – Dwarik Mondal, S/o. Bihari Mondal, Village: Banikhali, sadhupur Block: Gosaba, 24 PGS(S)	04.09.2021	Tiger	Jhila – VI under SWLS range.	5,00,000 (Paid)
4.	Name - Salim Sana , S/o. Shamad Sana, Vill. Mitrabari, 4 No. Satjelia, Block- Gosaba, S.B. Coastal, 24 PGS(S).	04.10.2021	Tiger	Jhilla-II under BHT range.	5,00,000 (Paid)
5.	Name - Asit Sarkar , S/o. Lt. Shibpada Sarkar, Vill. Luxbagan, S.B. Coastal, Block- Gosaba, 24 PGS(S).	05.10.2021	Tiger	Jhilla-II under BHT range.	5,00,000 (Paid)
6.	Chitta Ranjan Sarkar, S/o. Avimunya Sarkar, Vill. Parashmoni, P.O. Lahirapur, P.S. – S. B. Costal, Dist. 24 PGS(s)	01.02.2022	Tiger	Jhilla –VI under SWLS range.	To be paid compensation

**Human injuries by wild animal (2021-22):**

Name of the person died with details (age, sex, address etc.)	Date	By which species	Place of incidence	Compensation paid (in Rs.) (during 2021-22)
Nil				

**Details of staff casualties / injuries (2021-22) (if any):**

Name	Rank	Injured or Killed	Injured / Killed by	Date of incidence	Remarks
Sri Partha Haldar	Forest Guard	Injured	Tiger	01.01.2022	Staff of SWLS Range in line of duty front line staff in time Tiger Straying.

**Straying of wild animals during 2021-22:**

Date	Animal description	Location	Management action	Extent of damage (if any)	Remarks
07.09.21	Tiger	Hentalbari JFMC area under Basirhat Range	Instructed by the senior officer of STR, the dog squad of STR rushed to the spot immediately and searched both the places (Emlibari & Hentalbari JFMC area) , Next day (08.09.21) again started searching operation in the area and observed pug mark approaching deep forest at Jhila – 3.	Nil.	No casualties
31.12.21	Tiger	Charghery-Lahiripur G.P. Village	Instructed by the senior officer of STR, Reached the RO/SWLS Ranger and others staffs at about 5.30 a.m on 31.12.21 again started searching operation in the area and observed pug mark approaching deep forest (02.01.22) at Panchamukhani – 2.	Nil	No casualties



**Details of tranquilization of wild animals during 2021-22:**

Date	Animal description (species, age, sex, etc.)	Location	Immobilizing Drug used with quantity	Post tranquilization status of the animal	Remarks
01.01.2022	Adult Tigress, (Female), age- 5.5 years (Approx), Weight – 88 kg, Height – 80 cm.	Kumirmari G.P N-22 <sup>03</sup> /27.4 <sup>//</sup> E-88 <sup>05</sup> /39.3 <sup>//</sup> Adibasi Para JFMC under BHT. Range	Ketamin and Xylazine 10 ml by Jab stick at about 10.13 am & Ketamin 7 ml at about 10.42 am.	Fully tranquilized and then Tiger was taken out from the cage and performed medical check -up.	After treatment the animal is in sound health and fit for release in nature at around 03.05 pm on 03.01.22
12.01.2022	Adult Tiger, (Male), Age-11 year (Approx), Weight 100 Kg, Length 88 cm.	Mathurakhanda of Bali-I G.P. N-22 <sup>03</sup> /43.03 <sup>//</sup> E-88 <sup>04</sup> /30.8 <sup>//</sup> -2 under NP(W) Range	Ketamin by Pistol at about 04.30 am	Fully tranquilized and then Tiger was taken out from the cage and performed medical check -up.	The animal is not able to hunt her pray by himself due to old age & was incapacitated the animal sent to the Sundarban Wild Animal park at the Jharkhali, South 24 Parganas
20.02.2022	Adult Tigress, (Female), age- 9 years (Approx), Weight – 110.50 kg, Height – 80 cm.	Amtali G.P N-22 <sup>02</sup> /22.9 <sup>//</sup> E-88 <sup>09</sup> /43.4 <sup>//</sup> Chimta of Manipur village area under BHT. Range	Ketamin 10 ml by Jab stick at about 05 pm & Ketamin 10 ml at about 05.35 pm.	Fully tranquilized and then Tiger was taken out from the cage and performed medical check -up.	After treatment the animal is in sound health and fit for release in nature at around 08.45 pm on 22.02.22

**Translocation of wild animals during 2021-22:**

Sl. No.	Species	Number	Captured from	Place of Release	Capture method Tranquilization, Trap Cage, others (specify)	Remarks
1	Adult Tiger, (Male),	1	Mathurakhand a of Bali-I G.P. N-22 <sup>0</sup> 03'43.03'' E-88 <sup>0</sup> 42'30.8'' -2 under NP(W) Range	Sundarban Wild Animal park at the Jharkhali, South 24 Parganas	Ketamin by Pistol at about 04.30 am Fully tranquilized and then Tiger was taken out from the cage and performed medical check -up.	The animal is not able to hunt her pray by himself due to old age & was incapacitated the animal sent to the Sundarban Wild Animal park at the Jharkhali, South 24 Parganas

**Crop damage (2021-22):**

Area affected (in ha.) (during 2021-21)	Compensation paid (in Rs.) (during 2021-22)
Nil	Nil

**Hut damage (2021-22):**

Hut damage (in No.) (during 2021-22)	Compensation paid (in Rs.) (during 2021-22)
Nil	Nil

**Livestock killed (2021-22):**

Livestock killed (in No.) (during 2021-22)	Compensation paid (in Rs.) (during 2021-22)
Nil	Nil

**PROTOCOL FOR CREATION AND MAINTENANCE OF NYLON NET FENCING:****Background:**

Nylon-net fence has been found to play an important role in preventing the straying out of tigers into village's areas from forest. A protocol for maintenance of the nylon-net fencing has been designed with an aim of carrying out thorough checking and proper maintenance. The Protocol includes involvement of local Stakeholders in FPC/EDC members also along with forest staff.



**Range wise location of the existing Nylon-Net fencing in 2021-22 and its maintenance is given below:**

Sl No	Coverage area (Block, Comptt.)	Length (in km.)	Year of erection	Present status (Functional/non functional)	Remarks	Location
1	<b>NPW Range</b>	<b>22 KM.</b>	-	<b>Functional</b>	<b>Maintained daily as per net checking protocol</b>	<ul style="list-style-type: none"> <li>• From Belegudam khal to Nawbanki khal</li> </ul>
2	<b>SWLS Range</b>	<b>39 KM</b>	-	<b>Functional</b>		<ul style="list-style-type: none"> <li>• Pirkhali Khal to Pakhirkhal : 5 Km approx</li> <li>• Pakhirkhal to Lalitkhali: 9 km. approx</li> <li>• Lalitkhali to Ranjit's khal: 5 km. approx.</li> <li>• Ranjit's khal to Duttar Beat: 6 km. approx.</li> <li>• Duttar Beat to Kakmari Khal : 11 km. approx</li> </ul>
3	<b>BHT Range</b>	<b>45 KM</b>	-	<b>Functional</b>		Shamsernagar (Kalindi River side) to Jhingekhali Beat: 13 km. approx. <ul style="list-style-type: none"> <li>• Ranimangal river to jhilla river (Arbesi-2 Comptt.): 7km. approx.</li> <li>• Jhilla Compound to Kakmari khal: 20km. Approx.</li> </ul>

### **Innovation by a Psychological strategy:**

To mitigate the tiger straying a thought of mechanical barrier came out in field level by obstructing the route of the tiger from where it strayed in the villages. Therefore, the concept of fencing along the forest villages interface was developed and interestingly it works as a psychological barrier rather than a mechanical barrier. Forest officials in the early 2000s noticed that the villagers erected Fishing Nets in and around the safe shed and homes so as to prevent them from the tiger if it strayed in the villages. On further questioning and deliberations a new innovative idea of passively fencing the forest boundaries with such nets

came up and was tried using locally available materials like Bamboo and Nylon rope nets on a trial and pilot basis. This actually resulted in reduction in the tiger straying incidences in the area where the Nylon Net fencing was installed. Then slowly the Nylon Net fencing was increased to the whole stretch of the forest boundary which is adjacent to the villages which has reduced the tiger straying incidences significantly. Slowly the erection and maintenance of Nylon Net Fencing became a part of the management plan and a routine activity for the staff. The practice of Nylon Net fencing discussed in the following segment in details.

### Practicing Nylon Net Fencing:

- Initially the boundaries of the vulnerable forest areas along the river, associated lands withy fringe villages was fenced by vegetative cover i.e. *Cerriops- Excoecaria* combination tide with nylon rope.
- Avicenna* post changes to bamboo post on soft soil and RCC post on hard ground.
- The height of the fencing initially was 6-8 now bamboo posts help to erect the fencing at a height of 10 – 12 ft.
- The normal mesh size remains 4” X 4” to avoid any strangulation of wild animals like deer. The net is made of 4mm,3-strand IP- PARA yellow Nylon rope.

**Fencing checking Protocol: A Fencing Register will be kept in each station and records will be kept in accordance to the parameters given below:**

Sl. No.	Rank	Frequency	Remarks
1	Concerned Forest Guard	Daily	He will take at least one concerned FPC/EDC Member & both will jointly sign in Fencing checking Register.
2	Concerned Beat Officer	Weekly once	He will take the Joint Convenor of concerned FPC/EDC Member & both will jointly sign in Fencing checking Register.
3	Concerned Range Officer	Once in 15 days	He will take the Concerned Forest Guard or Beat Officer along with and will report to DFD/STR in detail as well as will mention in fencing checking Register.
4	Asstt. Field Director/STR	Once in a month	They will check the fencing in the field to verify that the same has been maintained properly.
5	Dy. Field Director/STR	Once in six weeks	He will check the fencing in the field to verify that the same has been maintained properly.

### Parameters for fence checking:

The total length of Nylon Net fencing has to be checked as proposed on following parameters:

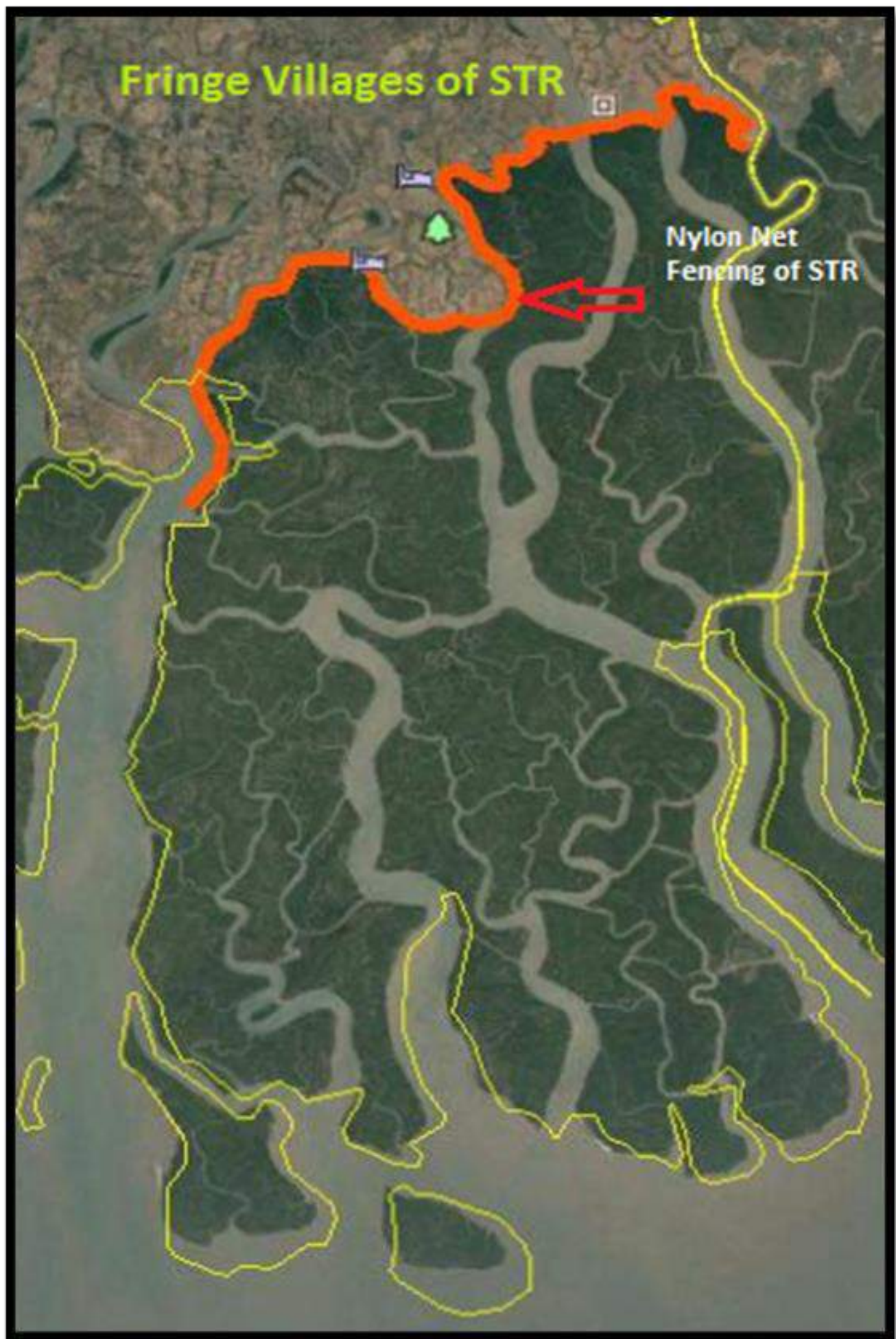
- Height of Nylon Net fencing maintained (*The height should be of 10 ft minimum; (in case of new fencing) and 8.0ft ( in case of old fencing)*)
- Height of Khal guard to be maintained at least 5 ft above from the highest tidal level estimated for '*Kotal*' period.
- Condition of nylon rope of the net (*if the net found brittle, immediately it should be changed after bringing it to due notice to the concerned authority*)
- Condition of the posts of the fencing (*if found rotting at the base, to be changed immediately after bringing it to due notice to the concerned authority*)
- Condition of the runner (*the tensile strength to be checked*) *GI runners to be used.*
- Condition of khal guard (*if sagging noticed, to be repaired immediately*)
- Monitoring frequency (*as proposed*)

**'Reverse funnels made** by nylon-net fences at khal mouth should be maintained with at least 50mt. side wing.

- Fencing posts will be changed from 'Bain' to 'Goran' to bamboo in phases depending on availability of the same.











## Chapter 13

### Tiger Monitoring

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## TIGER MONITORING IN SUNDARBAN TIGER RESERVE

Tiger Monitoring a well-devised monthly monitoring system where direct tiger sightings and other evidences (indirect) of presence of tigers and their movements in the Tiger Reserve are being recorded, as per the directive of National Tiger Conservation Authority (formerly known as 'Project Tiger'). The table given below shows a summary of the month-wise scenario for the whole year:

Month	Direct sighting		Heard of roaring	Sighting of fresh pugmarks	
	Adult	Cub		Adult	Cub
<b>April,2021</b>	<b>10</b>	<b>2</b>	<b>2</b>	<b>58</b>	<b>-</b>
<b>May,2021</b>	<b>13</b>	<b>2</b>	<b>2</b>	<b>23</b>	<b>-</b>
<b>June,2021</b>	<b>7</b>	<b>5</b>	<b>7</b>	<b>22</b>	<b>-</b>
<b>July,2021</b>	<b>5</b>	<b>-</b>	<b>3</b>	<b>26</b>	<b>-</b>
<b>August,2021</b>	<b>15</b>	<b>-</b>	<b>6</b>	<b>18</b>	<b>-</b>
<b>September,2021</b>	<b>10</b>	<b>-</b>	<b>2</b>	<b>18</b>	<b>-</b>
<b>October,2021</b>	<b>15</b>	<b>2</b>	<b>9</b>	<b>34</b>	<b>-</b>
<b>November,2021</b>	<b>7</b>	<b>2</b>	<b>7</b>	<b>34</b>	<b>-</b>
<b>December,2021</b>	<b>18</b>	<b>-</b>	<b>5</b>	<b>69</b>	<b>-</b>
<b>January,2022</b>	<b>11</b>	<b>-</b>	<b>6</b>	<b>46</b>	<b>-</b>
<b>February,2022</b>	<b>10</b>	<b>-</b>	<b>7</b>	<b>18</b>	<b>-</b>
<b>March,2022</b>	<b>11</b>	<b>-</b>	<b>3</b>	<b>28</b>	<b>-</b>
<b>Total</b>	<b>132</b>	<b>13</b>	<b>59</b>	<b>394</b>	<b>-</b>

### Compendium of AITE -2022 in STR:

RANGE	INSTALLED CAMERA PAIRS	INSTALLATION DATES	REMOVAL DATES	TRAINING OF DATA COLLECTORS	SIGN SURVEY
Bashirhat	117	7 - 14 December 2021	10-15 January 2022	23-25 November 2021	19-21 December 2021
Sajnekhali Wildlife Sanctuary	117				
National Park East	178				
National Park West	161				
<b>TOTAL</b>	<b>573 pairs</b>				



**M-Stripes** Home Admin Patrol Territory

**Boat Transect**

Showing 1 to 6 of 6 rows

Image	Species Type	Species	Mangrove type	Bank type	Total animals	Young seen
	Bird	Others	Medium	Medium	1	1
	Bird	Unable to find species!	Medium	Medium	5	5
	Bird	Unable to find species!	Medium	Medium	1	1
	Bird	Others	Medium	Medium	2	2
	Primate Arboreal	Rhesus Macaque	Medium	Medium	1	1
	Reptile	Saltwater Crocodile	Medium	Medium	1	1

Showing 1 to 8 of 8 rows

Image	Species Type	Species	Mangrove type	Bank type	Total animals	Young seen	Direction	Count	Count	Count	Count
	Bird	Others	Medium	Medium	1	1	right	4	2	1	1
	Bird	Others	Medium	Medium	1	1	right	4	1	1	1
	Bird	Others	Medium	Medium	1	1	right	5	3	1	1
	Bird	Others	Medium	Medium	1	1	right	3	2	1	1
	Bird	Others	Medium	Medium	1	1	left	7	6	1	1
	Bird	Others	Medium	Medium	1	1	right	3	1	1	1
	Primate Arboreal	Rhesus Macaque	Medium	Medium	1	1	left	3	3	1	1
	Reptile	Saltwater Crocodile	Medium	Medium	1	1	right	3	2	1	1
	Bird	Others	Medium	Medium	1	1	right	1	4	1	1
	Bird	Others	Medium	Medium	1	1	right	2	8	1	1

WEST BENGAL Sundarbans Tr Npm 3 04 2461 right 2 8 1



1. In this FY 2021-22, M-STrIPES application was first time used in Sundarban landscape with Riparian module.
2. A brand new E-patrol android application was also used for patrolling purpose.
3. Moreover, Sign survey was carried out by using Polygon search application.

#### Annual Tiger Monitoring by Camera Trapping 2021-22:

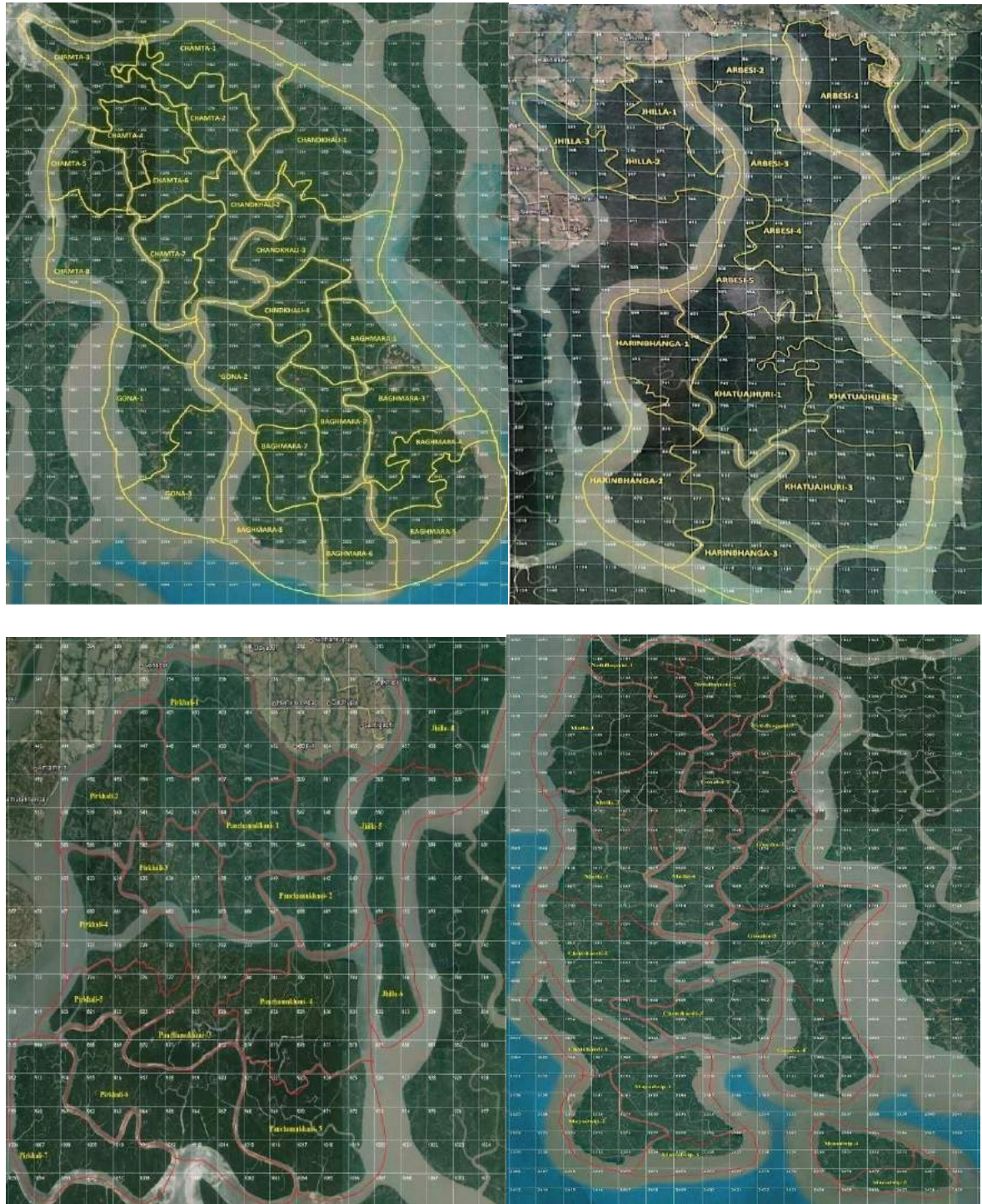
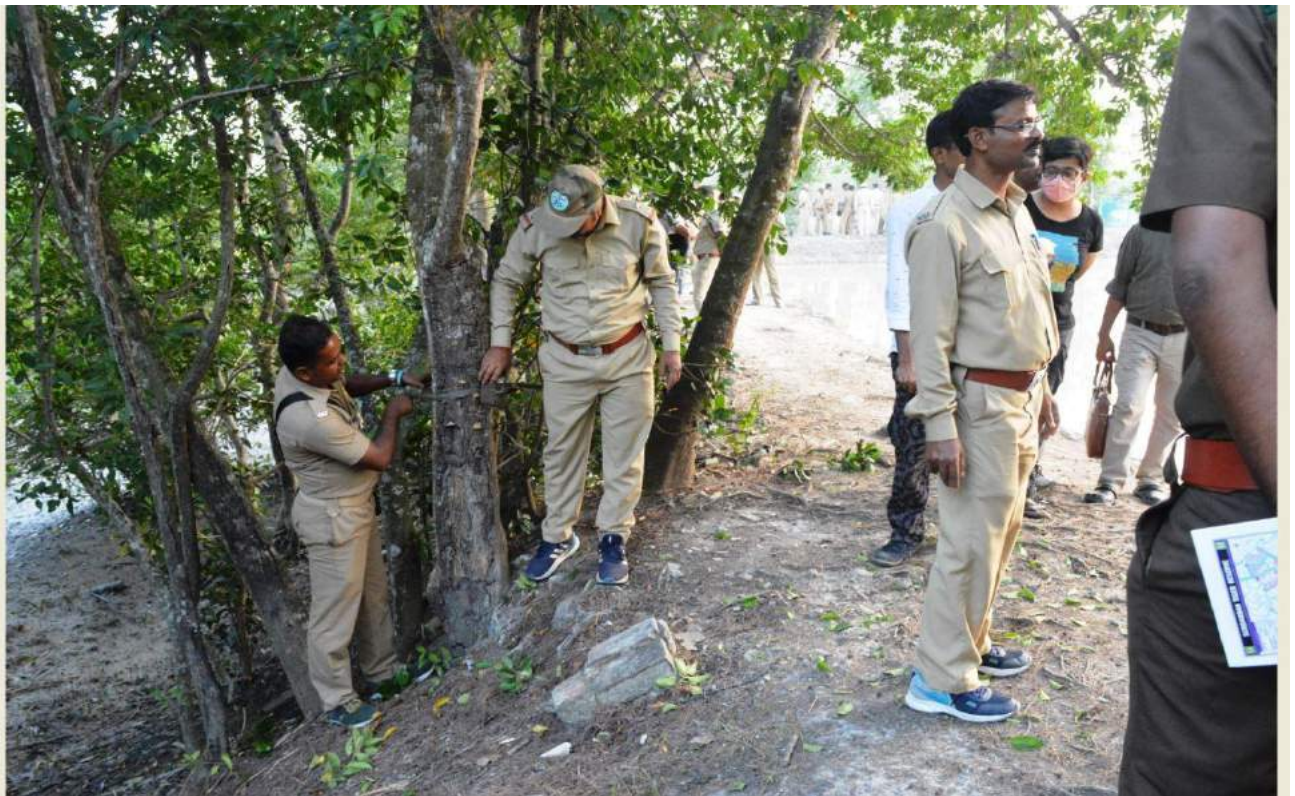


Figure: 2 sq. Km. Grid Maps (A) National Park East Range, (B) Basirhat Range (C) Sajnekhali Range, (D) National Park West Range.









### Data Metrics and Demography of Tiger Individuals in Sundarban:

RANGE/UNIT	NO OF INDIVIDUALS BY YEAR				
	2016-17	2018-19(AITE)	2019-20	2020-21	2021-22 (AITE)*
Sajnekhali Wildl ife Sanctuary	14	-	10	12	--
Bashirhat	14	-	19	17	--
National Park(West)	19	-	20	21	--
National Park(East)	16	-	24	24	--
24 Parganas (South) division	24	-	23	22	--
<b>Total</b>	<b>87</b>	<b>88</b>	<b>96</b>	<b>96</b>	<b>--</b>

\*- Report will be released by NTCA, Govt of India.

### Range wise Results of Prey base in AITE 2021- 2022:

1. **National Park East Range (NPE):** Total Administrative Area= 809.56 sq Km.

Beats: Bagmara (BG), Chamta (CH), Chandkhali (CD).

Range	Beat	SD	WB	FC	LC	JC	RM	OTTER
NPE	BG	292	128	75	86	0	113	6
	CH	23	162	40	65	0	119	38
	CD	103	99	24	35	52	88	1
	SUM	418	389	139	186	52	320	45

	STDEV	138.1	31.5	26.0	25.6	30.0	16.4	20.0
	Mean	139.3	129.6	46.3	62	17.33333	106.6	15

Abbreviations: SD= Spotted Deer, WB= Wild Boar, FC= Fishing Cat, LC= Leopard Cat, JC= Jungle Cat, RM= Rhesus Macaque.

Estimated Prey density of Tigers in NPE	
SD	0.52 / Sq Km
WB	0.48 / Sq Km
FC	0.17 / Sq Km
LC	0.23 / Sq Km
JC	0.06 / Sq Km
RM	0.40 / Sq Km
OTTER	0.06 / Sq Km

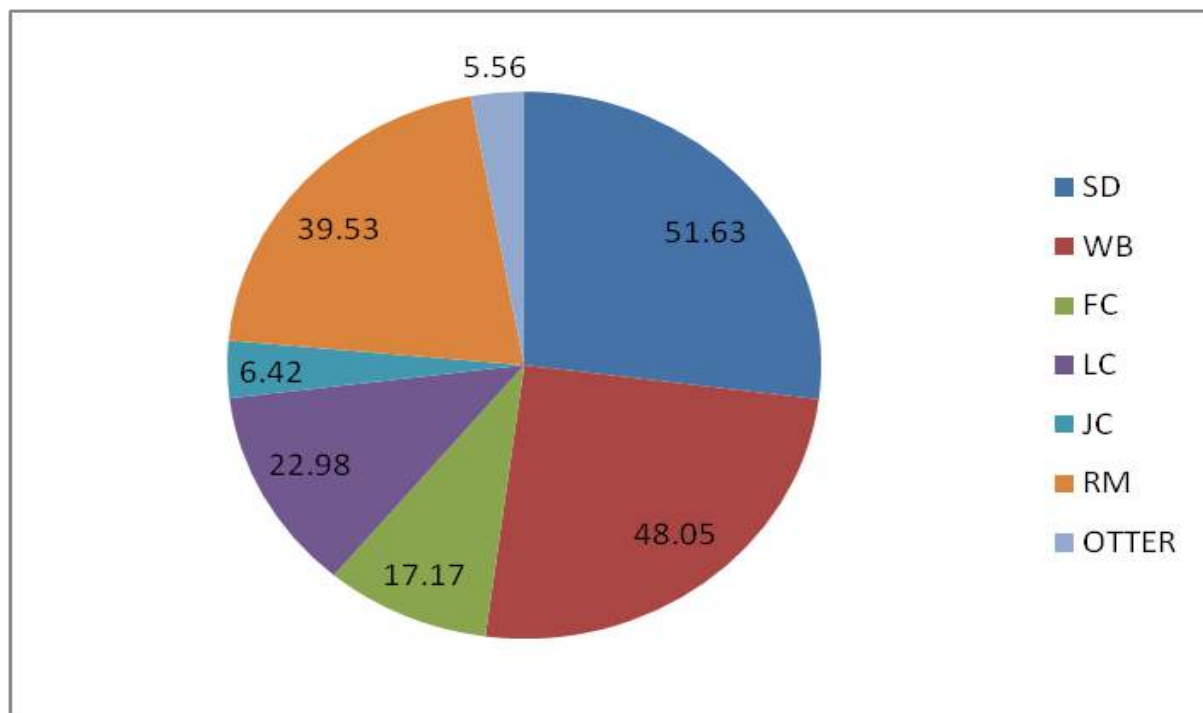


Fig 1: Pie chart distribution of total prey density estimation of NPE, 2022.

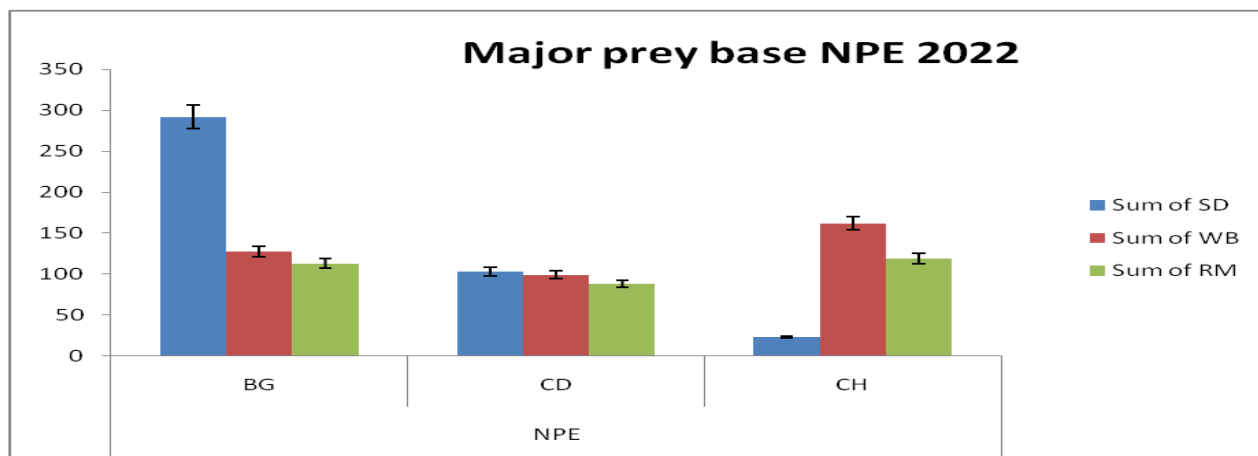




Fig 2: Column chart of major prey base estimation of NPE, 2022.

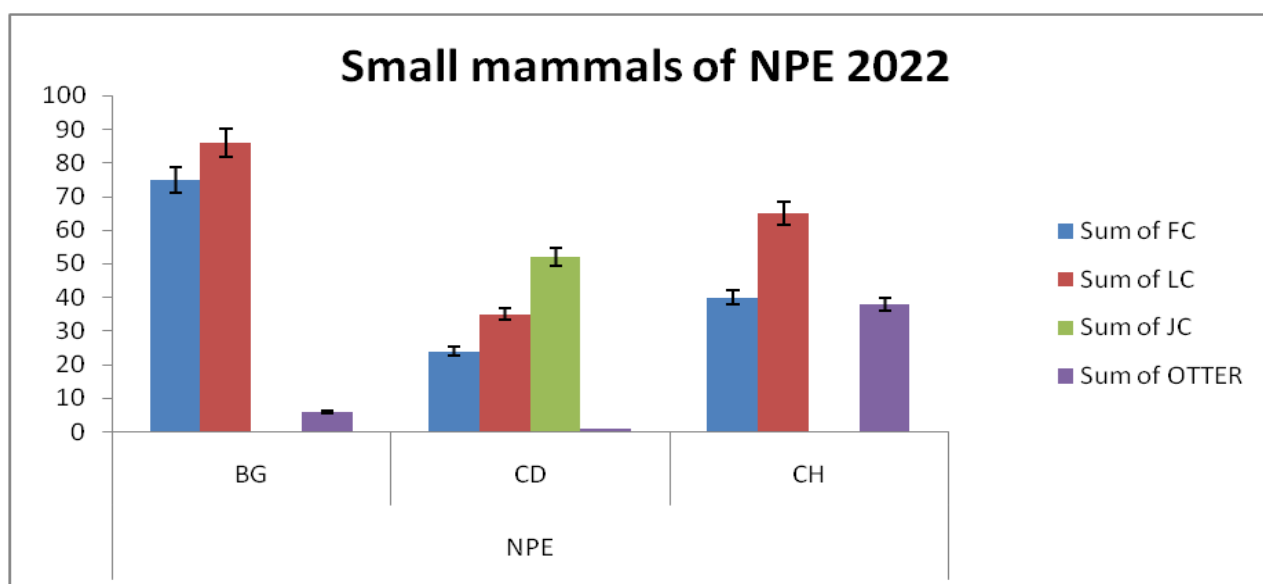


Fig 3: Column chart of small mammals estimation of NPE, 2022.

2. **Bashirhat Range (BHT):** Total Administrative Area=452.44 sq Km

Beats: Bagna (BA), Jhingekhali (JK), Burirdabri (BR), Khatuajhuri (KT), Harikhali (HR).

Range	Beat	SD	WB	FC	LC	JC	RM	OTTER
BHT	BA	23	57	23	0	2	28	1
	JK	66	114	40	2	2	48	2
	BR	70	68	49	0	1	48	0
	KT	53	98	71	0	0	93	0
	HR	17	90	64	0	0	44	0
	SUM	229	427	247	2	5	261	3
	STDEV	24.46835	22.95212	19.13897	0.894427	1	24.25283	0.894427
	Mean	45.8	85.4	49.4	0.4	1	52.2	0.6

Abbreviations: SD= Spotted Deer, WB= Wild Boar, FC= Fishing Cat, LC= Leopard Cat, JC= Jungle Cat, RM= Rhesus Macaque.

Estimated Prey density of Tigers in BHT	
SD	0.51 / Sq Km
WB	0.94/ Sq Km
FC	0.55/ Sq Km
LC	0.00/ Sq Km
JC	0.01/ Sq Km
RM	0.58/ Sq Km
OTTER	0.01 / Sq Km



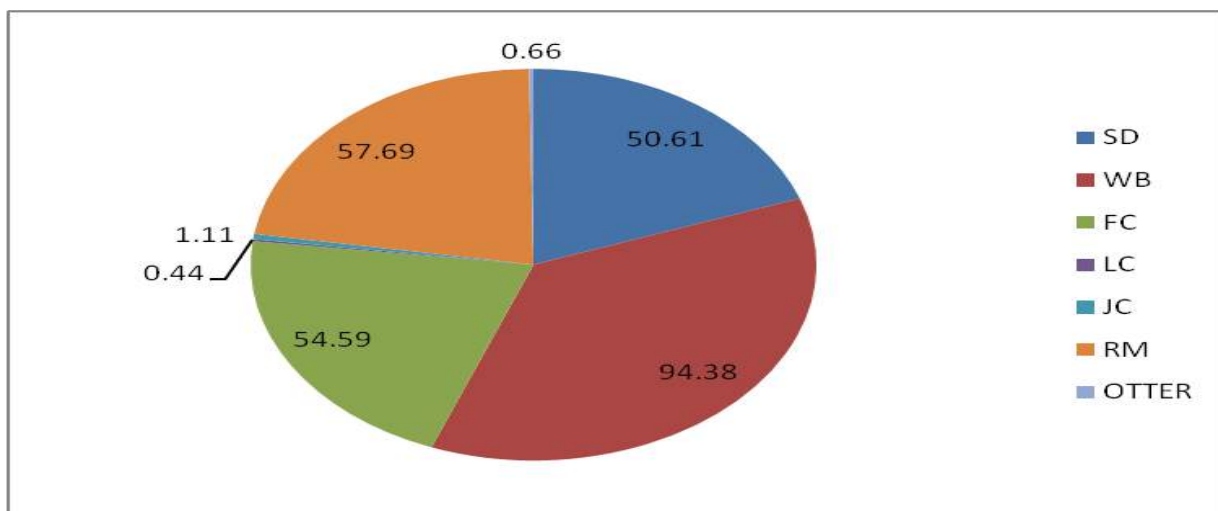


Fig 4: Pie chart distribution of total prey density estimation of BHT, 2022.

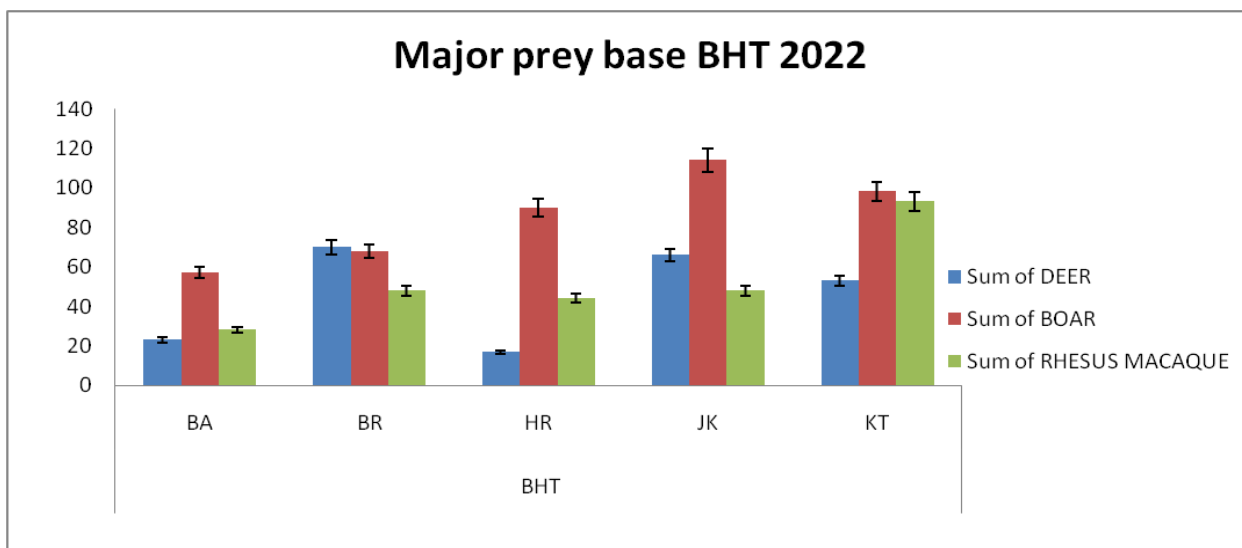


Fig 5: Column chart of major prey base estimation of BHT, 2022.

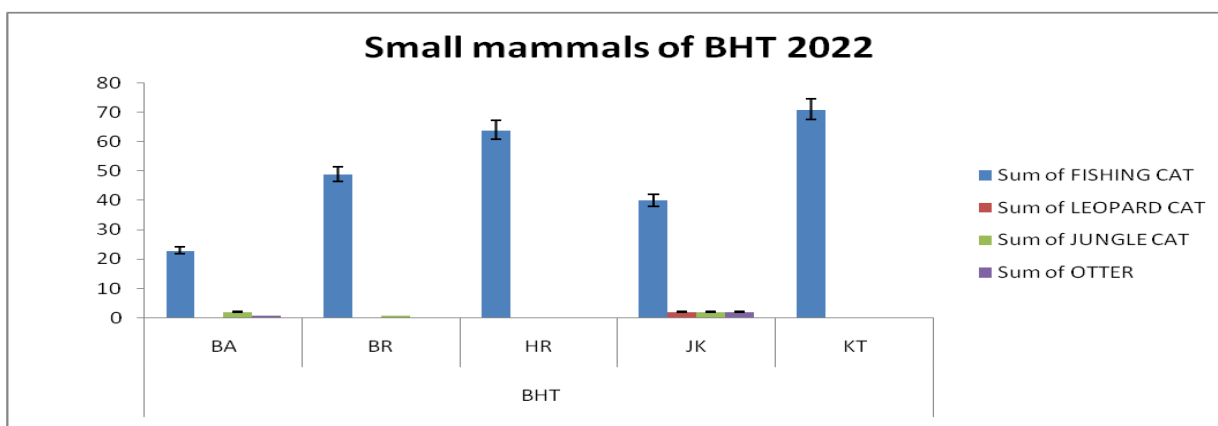


Fig 6: Column chart of small mammals estimation of BHT, 2022.

3. **Sajnekhali Wildlife Sanctuary Range (SWLS):** Total Administrative Area=432. 83 sq Km.

Beats: Sajnekhali (SW), Dobanki (DB), Duttar

*Note: Data received as SW and DB. Hence Duttar is accumulated with SW.*

Range	Beat	SD	WB	FC	LC	JC	RM	OTTER
SWLS	DB	157	228	71	75	0	138	0
	SW	163	172	48	61	7	86	3
	SUM	320	400	119	136	7	224	3
	STDEV	4.24	39.6	16.2635	9.8994949	4.9	36.8	2.1
	MEAN	160	200	59.5	68	3.5	112	1.5

Abbreviations: SD= Spotted Deer, WB= Wild Boar, FC= Fishing Cat, LC= Leopard Cat, JC= Jungle Cat, RM= Rhesus Macaque.

Estimated Prey density of Tigers in SWLS	
SD	0.74 / Sq Km
WB	0.92 / Sq Km
FC	0.27/ Sq Km
LC	0.31/ Sq Km
JC	0.02/ Sq Km
RM	0.52/ Sq Km
OTTER	0.01/ Sq Km

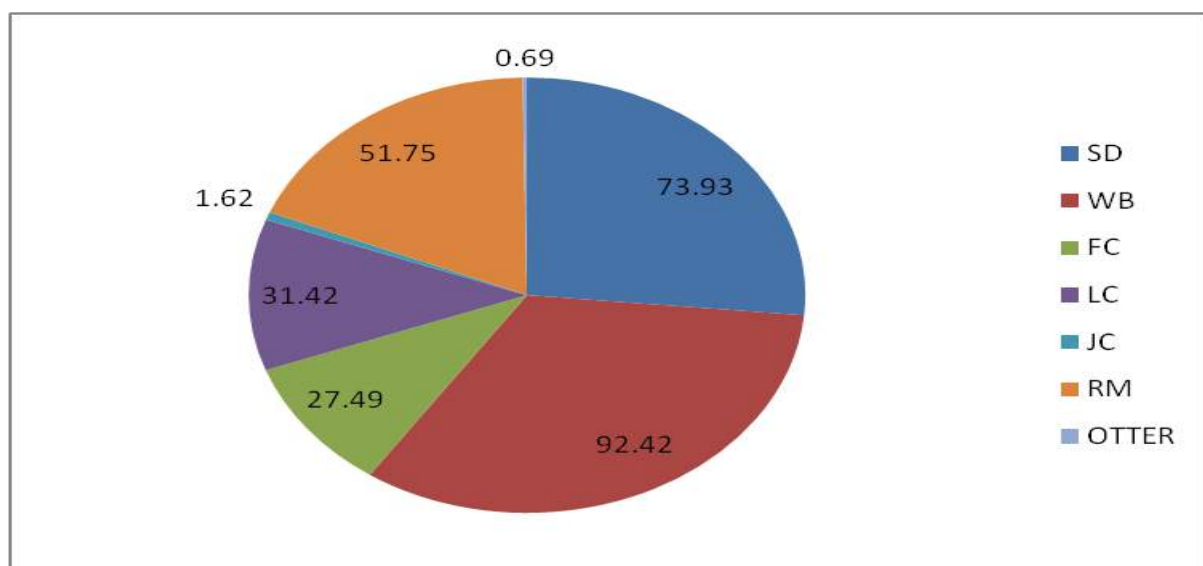


Fig 7: Pie chart distribution of total prey density estimation of SWLS, 2022.

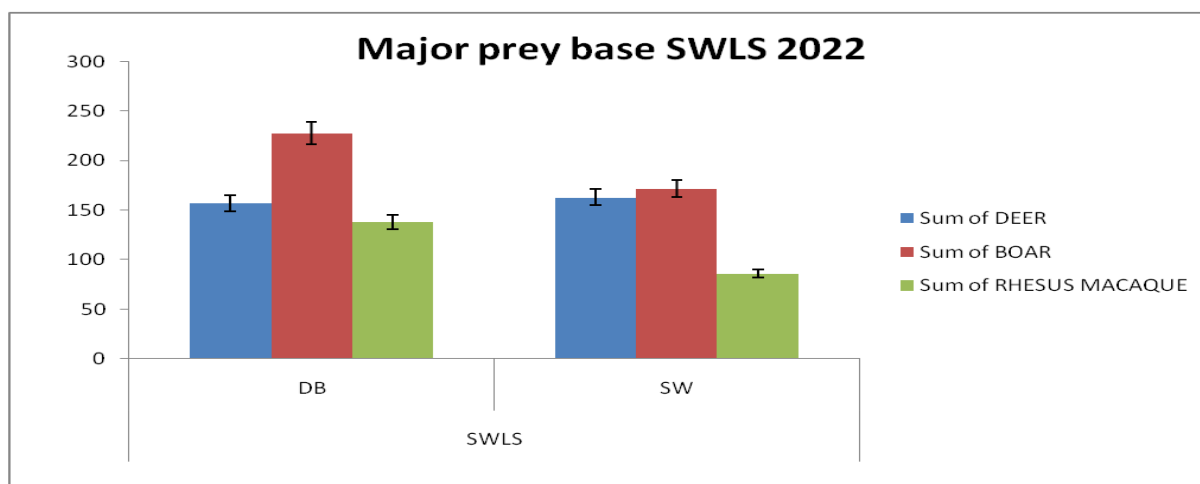


Fig 8: Column chart of major prey base estimation of SWLS, 2022.

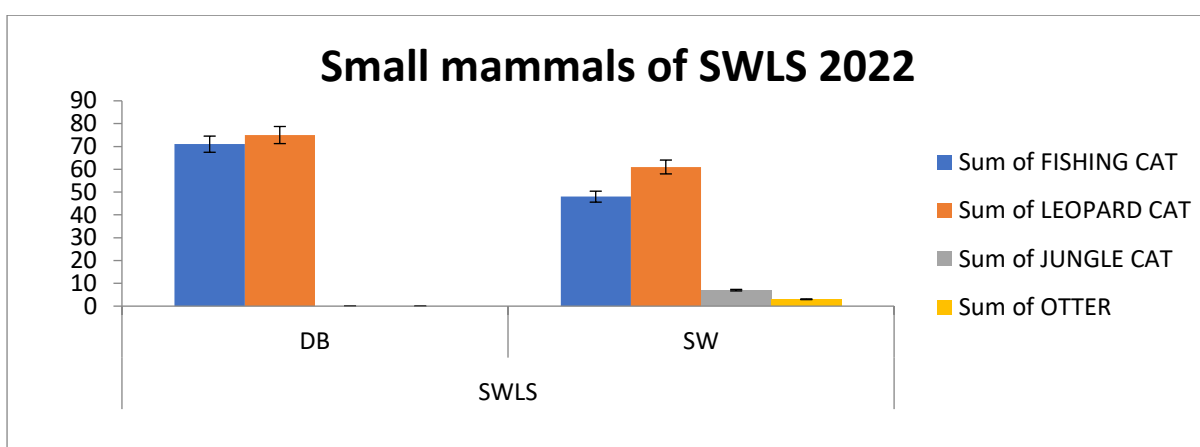


Fig 9: Column chart of small mammals estimation of SWLS, 2022.

4. **National Park West Range (NPW):** Total Administrative Area=890.06 sq Km.

Beats: Haldibari (HL), Kendo(KD), Netidhopani (NT).

Range	Beat	SD	WB	FC	LC	JC	RM	OTTER
NPW	HL	91	118	7	45	3	63	10
	KD	76	167	2	27	13	87	6
	NT	87	198	6	87	7	93	8
	SUM	254	483	15	159	23	243	24
	STDEV	7.767453	40.33609	2.645751	30.78961	5.033223	15.87451	2
	MEAN	84.66667	161	5	53	7.666667	81	8

Abbreviations: SD= Spotted Deer, WB= Wild Boar, FC= Fishing Cat, LC= Leopard Cat, JC= Jungle Cat, RM= Rhesus Macaque.

Estimated Prey density of Tigers in NPW	
SD	0.29 /Sq Km
WB	0.54 /Sq Km
FC	0.02 /Sq Km
LC	0.18 /Sq Km
JC	0.03 /Sq Km
RM	0.27 /Sq Km
OTTER	0.03 /Sq Km

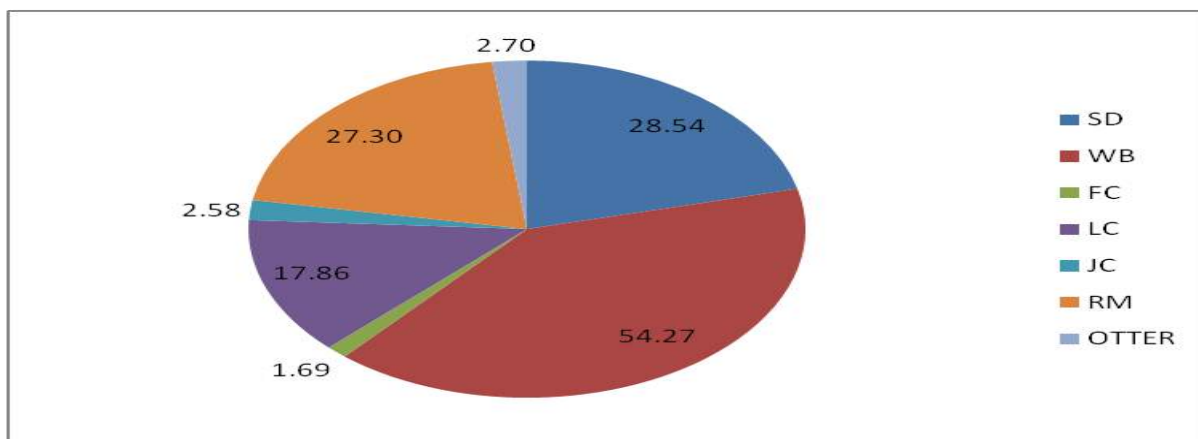


Fig 10: Pie chart distribution of total prey density estimation of NPW, 2022.

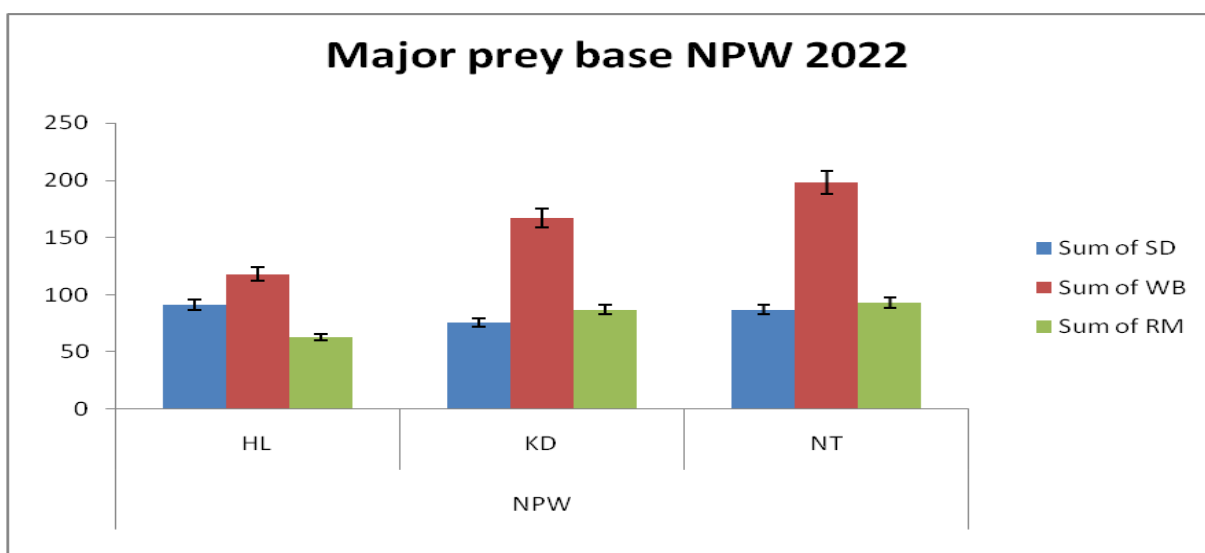


Fig 11: Column chart of major prey base estimation of NPW, 2022.



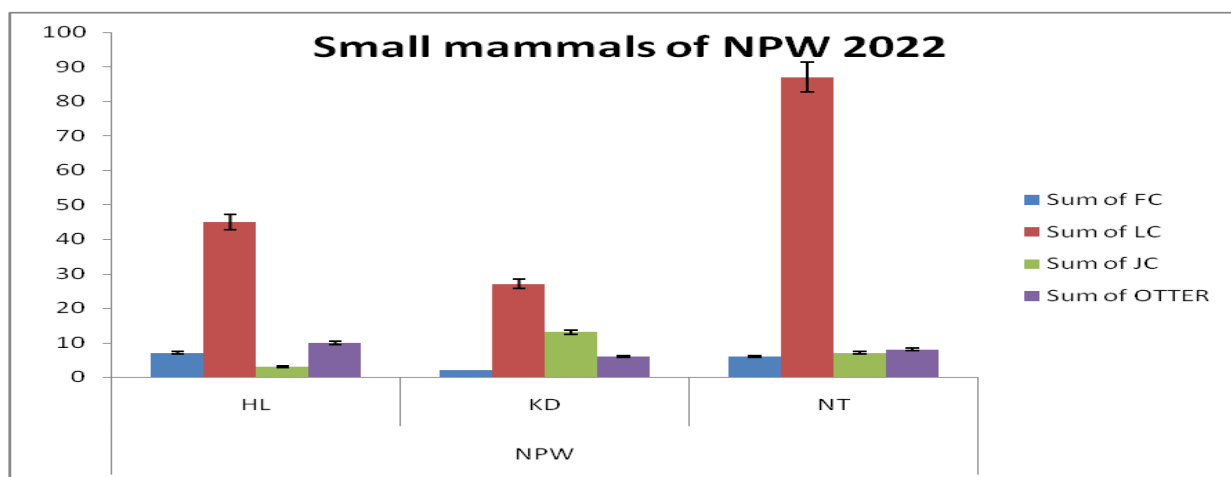
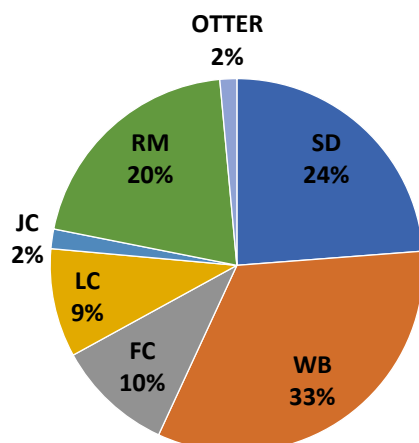


Fig 12: Column chart of small mammals estimation of NPW, 2022.

#### PREY BASE ESTIMATION - ENTIRE STR-2022

Animals	Code	Nos
Spotted Deer	SD	1221
Wild Boar	WB	1699
Fishing Cat	FC	520
Leopard Cat	LC	483
Jungle Cat	JC	87
Rhesus Macaque	RM	1048
Otters	OTTER	75

### Prey base estimation of STR 2022 ( in %)



### Status of Tiger Conservation Plan preparation as on 31.03.2022\*:

Name of PA	Status			Covering period
	Approved	Under preparation	Not prepared	
STR	Approved on 6 <sup>th</sup> July, 2020	-	-	2017-18 to 2026-27

\*Note: In the month of June, 2022 it will be send to NTCA (both hardcopy and PDF).



## **Chapter 14**

**Sabujshree**

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Sabujshree is a Govt of West Bengal Project, launched in May 2016. The idea is that for each child birth in every block, the parents are given a tree sapling of specific timber wood along with some fertilizer pack and a certificate of concerned Range Officer from Forest department, that the parents don't have to take permission from forest department for harvesting of the mature tree which would be grown from that distributed sapling.

The big goal of the scheme is that the fund procured by selling the matured tree is for the child's education purpose. No permission will be needed from the Forest Dept for the disposal of the tree to be harvested after maturity.

Gosaba, the only fringe block of South 24 Pgs district under Sundarban Tiger Reserve had a nominal birth of children as per the requisition placed by the Block Development Officer, Gosaba CD Block.

Updated report of Sabujshree scheme: 2021-22

<b>Name of District</b>	<b>No. of children born on and after 27.05.2016 till date of reporting (A)</b>	<b>Cumulative No of beneficiaries to whom saplings have been distributed since the inception of the scheme till March 2022 (B)</b>	<b>C= (A-B)</b>
<b>Sundarban Tiger Reserve ( Dist: South 24 Pgs )</b>	<b>13684</b>	<b>13592</b>	<b>53</b>

## Chapter 15

### Ecotourism



## ECO-TOURISM IN SUNDARBAN TIGER RESERVE:

Sundarban has always been alluring to the tourists who come here to enjoy the scenic beauty of the pristine mangrove forests. Since inception of Tiger Reserve there has been a steady increase of visitors to the area. The tourists entering the Tiger Reserve have to take a permit after paying the entry fees. Presently, the entry of the tourists is restricted mainly within the Buffer area. Tourist inflow continuously increases in last year which have created huge pressure on Biodiversity.

### Visitor report in STR for the month of April -21 to March-22:

Month	Foreigner	Indian	student	Revenue (In Rs.)
2021-April	10	1483	48	335768
2021-May	0	6	1	1332
2021-June	0	0	0	0
2021-July	0	0	0	0
2021-August	0	0	0	0
2021-September	0	0		0
2021-October	15	7217	262	1486052
2021-November	20	14119	556	2702180
2021-December	35	47332	1895	8490804
2022-January	0	8212	182	1450444
2022-February	26	14019	278	2731836
2022-March	28	13806	371	2756684
Total	134	106194	3593	19955100

### List of Forest Rest Houses:

Sl. No.	Name of the FRH	Booking done by	Contact details
Nil	Nil	Nil	Nil

### Eco-tourism aspects in your Division: \_

There are 7 tourist spots except the water body part, Viz. Sajnakhali, Dobanki, Sudhanyakhali (SWLS Range), Harikhali, Buridabari, Jhingakhali (BHT Range), and Netidhopani (NP(W) Range).







## Chapter 15

### Other Important Activities

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### Protection Monitoring Protocol (PMP) Meeting:

The division maintains quarterly PMP meetings for the betterment of the forest protection and wildlife monitoring. The meeting is chaired by the Field Director along with Dy. Field Director and two Assistant Field Directors, all the territorial range officers, beat officers and the field staff.

The update PMP meetings of 2021-22:

Sl.	Date	Venue
1	14.07.2021	Sajnekhali WLS, MIC Hall
2	29.11.2021	Sajnekhali WLS, MIC Hall
3	05.04.2022	Office of the CCF and Field Director, Sundarban Tiger Reserve, Canning Town

### Medical Camps during 2021-22:

SL. No	Agency	Date	Area	Persons
01	Associated Initiative for Mankind Foundation & West Bengal Orthopaedic Association	05.06.2021	Bhruliapara JFMC under Basirhat Range.	102 persons (Male:51, Female: 48, Children:03)
02	Swastika Sangha	15.06.2021	Palamari of Kumirmari under Basirhat Range	83 persons (Male:25, Female: 44, Children:14)
03	Institute for Indian Mother and Child	15.06.2021	HaritalaMayarani Sangha of Kumirmari under Basirhat Range.	94 persons (Male:46, Female: 35, Children:13)
04	Strips And Green Earth Foundation (SAGE)	19.06.2021	HaritalaMayarani Sangha of Kumirmari under Basirhat Range	74 persons (Male:47, Female: 23, Children:4)
05	Prataya	19.06.2021	Palamari of Kumirmari under Basirhat Range	161 persons (Male:69, Female: 81, Children:11)
06	Students Health Home	21.06.2021	Kalidaspur 9 no. Purbapara of ChotoMollakhali under Basirhat Range	177 persons (Male:67, Female: 85, Children:25)

















### Veterinary camps during 2021-22:

Sl no	Agency	Date	Area	Animal Details
1	Strips And Green Earth Foundation	19.06.2021	HaritalaMayarani Sangha of Kumirmari under Basirhat Range	Total: 69 numbers (Cow: 32 numbers, Goat: 37numbers)
2	Students Health Home	21.06.2021	Kalidaspur 9 No. Purbapara of ChotoMollakhali under Basirhat Range	Total: 2662 numbers (Cow: 140 numbers, Calf: 5 numbers, Goat: 37numbers, Hen: 1356 numbers, Duck: 993 numbers)







**Seminar / Workshop organized on wildlife management & other wildlife related matters during 2021-22:**

<b>Date</b>	<b>Location</b>	<b>Topic</b>	<b>Organized by</b>	<b>Participants</b>
<b>05.04.21 to 08.04.21.</b>	<b>Virtual training workshop</b>	<b>Cyberspace Intelligence and investigation training to wildlife law enforcement officials</b>	<b>PCCF/WILDLIFE &amp; CWLW, WB</b>	<b>Sri Parta Pratim Tripathy, WBFS, AFD/STR &amp; Sri Soumen Mondal, WBFS, AFD/STR</b>
<b>13.07.21</b>	<b>Virtual training workshop</b>	<b>Orientation-cum-Exposure Training</b>	<b>PCCF(HoFF), WB</b>	<b>Field Staff of STR</b>
<b>18.08.21</b>	<b>Virtual training workshop</b>	<b>Virtual Platform for newly recruited FR officer in WEBEX platform.</b>	<b>Director, WBFS, Dowhill.</b>	<b>Recruited FR officer in STR</b>
<b>02.09.21 to 04.09.21</b>	<b>Manas Tiger Reserve, Assam</b>	<b>Training of Trainers workshop for All India Tiger Estimation 2022-reg.</b>	<b>DIG(NTCA)</b>	<b>Sri Tapas Das, IFS, CCF &amp; FD/STR &amp; S. Jones Justin, IFS, DFD/STR.</b>
<b>14<sup>th</sup> &amp; 15<sup>th</sup> Sept., 2021</b>	<b>Bali island</b>	<b>Training of Ecotourism Guide &amp; ecotourism management</b>	<b>CCF &amp; FD /STR</b>	<b>Field Staff (DR/Fr.) of STR</b>
<b>23<sup>rd</sup> to 25<sup>th</sup> Nov, 21</b>	<b>Conference Hall, MIC, Sajnekhali, STR.</b>	<b>Training of Trainers for All India Tiger Estimation</b>	<b>CCF &amp; FD /STR</b>	<b>Field Staff (DR/Fr.) of STR</b>
<b>20.12.21 to 27.12.21</b>	<b>One week online mode training</b>	<b>Training of Wildlife Management for DR/Fr., FG and Forest Laws for FR Officer</b>	<b>Director, WBFS, Dowhill.</b>	<b>Sri Sourav Biswas, DR/Fr. Sri Debajyoti Das, FG &amp; Sri Arka Routh, FR</b>
<b>10<sup>th</sup> to 12<sup>th</sup> January, 22</b>	<b>online mode training</b>	<b>Cyber Crime and Digital forensics Responder Track</b>	<b>Additional Director, Wildlife Crime Control Bureau, New Delhi</b>	<b>Sri Arka Routh, FR.</b>
<b>3<sup>rd</sup> to 7<sup>th</sup> January, 22</b>	<b>Vyakti Vikas Kendra India, Art of Art of Living, Benguluru</b>	<b>Building Competencies for personal Excellence</b>	<b>Ministry of Environment, Forest and Climate Change(RT Division)</b>	<b>Sri S. Jones Justin, DFD /STR</b>
<b>31<sup>st</sup> January to 4<sup>th</sup> February, 2022</b>	<b>Online virtual training workshop</b>	<b>Intelligence Trade Craft Course</b>	<b>Additional Director, Wildlife Crime Control Bureau, New Delhi.</b>	<b>Sri S. Jones Justin, DFD /STR</b>

<b>15<sup>th</sup> &amp; 16<sup>th</sup> December, 21</b>	<b>MIC Hall, Sajnekhali</b>	<b>Training &amp; Capacity Building of the frontline staff.</b>	<b>CCF &amp; FD /STR</b>	<b>Field Staff of STR</b>
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**Training and awareness generation programme on wildlife including Foreign training during 2021-22:**

<b>Date</b>	<b>Location</b>	<b>Topic</b>	<b>Organized by</b>	<b>No. of participants</b>
29.07.2021	Sajnekhali	International Tiger Day	STR	50 nos.
11.07.2021	All over STR	Forest Martyrs Day	STR	70 nos.
02.07.21 to 10.08.2021	NP(W)Range, SWLS Range & Bashirhat Range	Bharat Ka Amrut Mahatsav Celebration	NTCA & STR	360 nos.
14.12.2021	Sajnekhali	Wildlife Week	STR	20 nos.
26.01.2022	All over STR	Republic day	STR	30 nos.
02.02.2022	All over STR	World Wetland Day	STR	20 Nos.

**❖ World Mangrove Day Celebration: 26 July, 2021:**

Mangroves act as natural shock absorbers in oceanic- calamities. They also provide livelihood opportunities to coastal communities. World Mangrove Day is celebrated on 26<sup>th</sup> July 2021 in STR. The objectives of World Mangrove Day are - to raise awareness of the importance of mangrove ecosystems as a unique, special and vulnerable ecosystem and to promote solutions for their sustainable management, conservation and uses.



❖ **International Tiger Day Celebration: 29 July, 2021:**

Every year the division celebrates the International Tiger Day with full concern, as it is the land of tigers.

❖ **Tourist Guide Training Programme: 2021-22**

Date: 14-15<sup>th</sup> September, 2021

Venue: Bali Nature Club





#### ❖ Azadi ka Amrut Mahotsav Celebration:

Azadi Ka Amrit Mahotsav is an initiative of the Government of India to celebrate and commemorate 75 years of independence and the glorious history of its people, culture and achievements. This Mahotsav is dedicated to the people of India who have not only been instrumental in bringing India thus far in its evolutionary journey but also hold within them the power and potential to enable Prime Minister's vision of activating India 2.0, fuelled by the spirit of Atma Nirbhar Bharat. The official journey of Azadi Ka Amrit Mahotsav commenced on 12th March 2021 which started a 75-week countdown to our 75th anniversary of independence and will end post a year on 15th August 2023. Following are the five themes of Azadi Ka Amrit Mahotsav.



















**Visit of dignitaries in Sundarbans during 2021-22:**

SL	Name of VIP	Designation	Purpose duration visit	Name of Water Vessel	Period of in Sundarban	
1	Shri Soumendra Ranjan Ganguly alongwith two officers	Superintending Engineer, Sundarban Development Board, Govt. W.B.	Visit to Sundarban	MV Urmila	19.11.21	21.11.21
2	Honble Justice Aniruddha Roy, High Cour of Calcutta with family	Honble Justice Aniruddha Roy, High Cour of Calcutta with family	Visit to Sundarban		19.11.21	21.11.21
3	Forest Range officer trainees from Tamil Nadu Forest Academy, 2020-22 Batch	Forest Range officer trainees from Tamil Nadu Forest Academy, 2020-22 Batch	Visit to Sundarban & study tour	Arrange by Deptt.	30.11.21	02.12.21
4	Sangram Saha,	Judge, 3 <sup>rd</sup> Bench, Presidency Small Causes Court, Calcutta	Visit to Sundarban	Kheya tori	10.12.21	12.12.21
5	Sri Alak Ranjan Dan	Junior Engineer under Basanti Irrigation Sub-division of I & W	Visit to Sundarban	MV Tanya Launch	12.12.21	13.12.21
6	GFCC officials	GFCC officials	Visit to Sundarban	MV Tanya Launch	19.12.21	20.12.21
7	W.B. Legislative Assembly, District of South Parganas	W.B. Legislative Assembly, District of South Parganas	Visit to Sundarban & study tour		21.12.21	24.12.21
8	Deepak Kr. Agarwal	Judge, MP High Court	Visit to Sundarban	MV Tanya Launch	24.12.21	25.12.21
9	Irrigation & Waterways	MV Tanya Launch	Visit to Sundarban	MV Tanya Launch	26.12.21	
10	Hon'ble Justice Birendra Kumar & family	Judge, Patna High Court	Visit to Sundarban		27.12.21	28.12.21
11	Sudhir Mittal, Judge	Punjab and Haryana High Court	Visit to Sundarban		29.12.21	31.12.21
12	East India Tour for officer Trainees of 35 <sup>th</sup> SFS batch of CASFOX, Dehradun.	East India Tour for officer Trainees of 35 <sup>th</sup> SFS batch of CASFOX, Dehradun.	Visit to Sundarban & study tour	Arrange by Deptt.	31.12.21	02.01.22

13	Hon'ble Judicial Member & Expert Member of National Green Tribunal, Eastern Bench	Hon'ble Judicial Member & Expert Member of National Green Tribunal, Eastern Bench	Visit to Sundarban	VIP Launch of WBTDCL	8.01.22	9.1.22
14	East India Tour for Forest Range officer Trainees of 2021-23 batch (VIII Batch)	East India Tour for Forest Range officer Trainees of 2021-23 batch (VIII Batch)	Visit to Sundarban	Arrange by Deptt.	21.01.22	23.01.22
15	Ajit Banerjee & his team	President Indian Football Association	Visit to Sundarban		8.02.22	09.02.22
16	Mr. Justice, B. Amit Sthalekar & his family	Hon'ble Judicial Member & Expert Member of National Green Tribunal, Eastern Bench	Visit to Sundarban	VIP Launch of WBTDCL	11.02.22	12.02.22
17	Sri Ashoke Kr. Biswas	IGP & Vigilance Authority, Kolkata Municipal corporation.	Visit to Sundarban		12.02.22	13.02.22
18	Justice Prakash Shrivastava & his family	Hon'ble Justice Calcutta High Court	Visit to Sundarban		12.02.22	13.02.22
19	Sri Ramkrishna Das	Junior Engineer under I & W Deptt., W.B.	Visit to Sundarban	MV Tanya Launch	16.02.22	17.02.22
20	East India Tour for Forest Range officer Trainees of 2021-23 batch	East India Tour for Forest Range officer Trainees of 2021-23 batch	Visit to Sundarban & study tour	Arrange by Deptt.	16.02.22	18.02.22
21	FR Officer Trainees, 7 <sup>th</sup> Batch, 2020-22	FR Officer Trainees, 7 <sup>th</sup> Batch, 2020-22	Visit to Sundarban & study tour	Arrange by Deptt.	13.03.22	14.03.22
22	Justice Chakradhari Saran Singh	Judge Patna High Court	Visit to Sundarban		16.03.22	
23	Justice Abdul Moin & his family	Judge Allahabad High Court, Lucknow Bench	Visit to Sundarban		16.03.22	20.03.22
24	Justice Soumen Sen & his family	Judge, High Court at Calcutta	Visit to Sundarban		18.03.22	20.03.22

**NGO's active in wildlife conservation during 2021-22:-**

SHER, NATUREMATES, WPSI, WWF, NEWS, AIM FOUNDATION, UKTIBADI SANSKRITIK SANSTHA, BALI NATURE, SAFE, HEAL, SAVING TIGER SOCIETY, BANYAPRAN SATHI, THE JUNGLEE, SGEF & HIMALAYAN EXPLORER.

**Misc. – Any other issue you want to highlight:** - Bharat Ka Amrut Mahatsav Celebration in STR, Tiger Census, water treatment Plant, distribution relief material in Covid – 19 situation & ‘YAAS’ cyclone.

**Research or Project, if any**

In recent years, apart from continuous tiger monitoring, *Batagur baska* conservation breeding, satellite tagging and their release are the researches inside Sundarban Tiger Reserve.

## **ANNEXURE**

- Government orders



**GOVERNMENT OF WEST BENGAL  
FOREST DEPARTMENT  
FOREST  
NOTIFICATION**

No. 2867-For./11B-6/83.—4<sup>th</sup> May 1984.—Whereas by notification No. 3640 For., dated the 6<sup>th</sup> June 1978 published at page 1361 of Part I of the “Calcutta Gazette” dated the 13<sup>th</sup> July 1978, the Governor was pleased to declare his intention to constitute the forest lands covering an approximate area of 1330.10 sq. kms. and comprising reserve forest blocks and compartments, in the district of 24-Parganas, more fully described in the Schedule below (hereinafter referred to as the said lands) as a National Park to be called the “**Sunderbans National Park**” for the purpose of protecting, propagating and developing wild life therein;

And whereas more than two months from the date of such proclamation have elapsed for preferring claim, as required under clause (b) of section 21 of the Wild Life (Protection) Act, 1972, (53 of 1972), (hereinafter referred to as the said Act);

And whereas no claim has been preferred under section 19 of the said Act;

And whereas all rights in respect of the said lands have been vested in the State Government;

Now, therefore, in exercise of the power conferred by sub-section (4) of section 35 of the said Act, the Governor is pleased hereby to specify in the Schedule below the limits of the said lands comprising the reserve forest blocks and compartments and declare that with effect from the 14<sup>th</sup> May 1984, the same shall be a National Park to be called the “**Sunderbans National Park**” for the said purpose.

**The Schedule**

**A. Situation:**

DISTRICT : 24-PARGANAS

Forest lands covering an approximate area of 1330.10 sq. kms. and comprising the following reserve forest blocks and compartments:—

Blocks		Compartments
Matla		1 to 4
Chamta		4, 5, 6, 7 and 8
Chhotahardi		1 to 3
Gosaba		1 to 4
Gona		1 to 3
Baghmara		2 to 8
Mayadwip		1 to 5

**B. Boundaries:**

North	:	Reserve forest blocks and compartments, namely, Netidhopani-1, 2 and 3; Chamta-3 and 2; Chandkhali-2 and 4; and Baghmara-1.
East	:	Harinbhanga river adjoining the international boundary with Bangladesh.
South	:	Bay of Bengal.

West	:	Matla river.	
			By order of the Governor,
			R.N. DE
			Secy. to the Govt. of West Bengal

**GOVERNMENT OF WEST BENGAL**  
**FOREST DEPARTMENT**  
**FOREST**  
**NOTIFICATION**

No. 5396-For/—24<sup>th</sup> June 1976—Whereas the area whose situation and boundaries are described in the Schedule below (hereinafter referred to as the said area) is considered to be of adequate ecological, faunal, natural and zoological significance;

Now, therefore, in exercise of the power conferred by sub-section (1) of section 18 of the Wild Life (Protection) Act, 1972 (53 of 1972), and in supersession of such part of all previous notifications as declared the said area or part thereof as a sanctuary, the Governor is pleased hereby to declare, with effect from the date of publication of this notification in the Official Gazette, the said area to be a sanctuary to be known as Sajnekhali Wild Life Sanctuary for the purpose of protecting, propagating and developing wild life and its' environment.

*The Schedule*

**A. Situation:**

District : 24-Parganas

24-Parganas Forest Division, Basirhat Range (Part) covering an approximate area of 362.40 Sq. Km.

and comprising following forest blocks and compartments:—

Blocks		Compartments
Panchamukhani		1 to 5
Pirkhali		1 to 7

**B. Boundaries:**

North	:	Bara Herobhanga Khal, Gomdi Khal and Pitch Khal.
East	:	Duttar Gang.
South	:	Part of Gosaba river and Netidhopani Khal.
West	:	Bidya river.

By order of the Governor,
A.K. GUPTA
Dy. Secy. to the Govt. of West Bengal

**Government of West Bengal  
Forests Department  
Forest Branch  
Writers' Buildings, Kolkata – 700 001**

**NOTIFICATION**

No. 6028-For

Dated: 18.12.2007

WHEREAS it has been established on the basis of scientific and objective criteria that the area described in the Schedule below (hereinafter referred to as the said area) is required to be kept as inviolate for the purpose of tiger conservation, without affecting the rights of the Scheduled Tribes or such other forest dwellers;

WHEREAS the State Government agrees with the recommendation of the Expert Committee set up vide P.C.C.F. (Wildlife), Govt. of West Bengal's Office Order No. 12-M/8-2007 dt. 4.11.2007 that the said area should be maintained as the Core or Critical Tiger Habitat of Sundarban Tiger Reserve.

WHEREAS National Tiger Conservation Authority, Govt. of India, vide its memo No. 1501/11/2007-PT (Part) dated December 3, 2007, has also recommended that the said area be notified as the Core or Critical Tiger Habitat of Sundarban Tiger Reserve.

NOW, therefore, in exercise of the power conferred by paragraph (1) of the Explanation following sub-section (4) of Section 38V of the Wildlife (Protection) Act, 1972, the Governor is pleased hereby to declare, with effect from the date of issue of this Notification, the said area to be the Core or Critical Tiger Habitat of Sundarban Tiger Reserve.

**THE SCHEDULE**

Sl. No.	Block	Compartment	Total Area (in Ha.)	Legal Status
1	Matla	1-4	17630	National Park
2	Chamta	1-3	9632	Reserved Forest
		4-8	12437	National Park
3	Chotahardi	1-3	17567	National Park
4	Goasaba	1-4	17173	National Park
5	Gona	1-3	13903	National Park
6	Baghmara	1	2430	Reserved Forest
		2-8	26963	National Park
7	Mayadwip	1-5	27336	National Park
8	Netidhopani	1-3	9300	Reserved Forest
9	Chandkhali	1-4	15591	Reserved Forest
<b>TOTAL:</b>			<b>169962</b>	

By order of the Governor  
(K. Chaudhury)  
Addl. Chief Secretary to the Govt. of West Bengal

**Government of West Bengal  
Forests Department  
Forest Branch  
Writers' Buildings, Kolkata – 700 001**

**NOTIFICATION**

No. 615-For/11M-28/07

Dated Kolkata the 17/02/2009

WHEREAS the core or critical tiger habitat of Sundarban Tiger Reserve has been notified vide Forest Department's G. O. No. 6028-For dated 18/12/2008.

WHEREAS it has been established on the basis of scientific and objective criteria that the area described in the Schedule below (hereinafter referred to as the said area) is required to ensure the integrity of the Core or Critical Tiger Habitat of Sundarban Tiger Reserve with adequate dispersal for tiger species, and which aim at promoting co-existence between wildlife and human activity with due recognition of the livelihood, developmental, social and cultural rights of the local people;

WHEREAS the State Government agrees with the recommendation of the Expert Committee set up vide P.C.C.F. (Wildlife), Govt. of West Bengal's Office Order No. 12-M/8-2007, dated 04/11/2007 that the said area should be maintained as the Buffer or Peripheral area of Sundarban Tiger Reserve;

NOW, therefore, in exercise of the power conferred by paragraph (ii) of the Explanation following sub-section (4) of Section 38 V of the Wildlife (Protection) Act, 1972, the Governor is pleased hereby to declare, with effect from the date of issue of this Notification, the said area to be the Buffer or Peripheral Area of Sundarban Tiger Reserve.

**THE SCHEDULE**

<b>Block</b>	<b>Compartment</b>	<b>Total Area (Ha.)</b>	<b>Legal Sttatus</b>
1. Panchamukhani	1-5	17666	Sanctuary
2. Pirkhali	1-7	18576	Sanctuary
3. Arbesi	1-5	15011	Reserved Forest
4. Jhilla	1-6	12311	Reserved Forest
5. Khatuajhuri	1-3	13241	Reserved Forest
6. Harinbhangha	1-3	11687	Reserved Forest
<b>TOTAL :</b>		88527	

By order of the Governor

Sd/-

Addl. Chief Secretary to the Govt. of West Bengal

No. 615/1-For/IIM-28/07

Dated Kolkata the 17/02/2009

Copy forwarded to the Managing Director, Basumati Corporation Ltd. 166, B. B. Ganguly Street, Kolkata – 700 012.



He is requested to publish the Notification in the Kolkata Gazette (Extra Ordinary) and send 50 (fifty) copies of the same to this Department for Official Use.

Sd/-  
Joint Secretary to the Govt. of West Bengal.