

Wildlife Odisha - 2023

WILDLIFE ORGANISATION

Forest, Environment and Climate Change Department

Government of Odisha

October, 2023



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State Wildlife Organization,
Forest, Environment and Climate Change Department, Government of Odisha

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Sambar



NAVEEN PATNAIK
CHIEF MINISTER, ODISHA



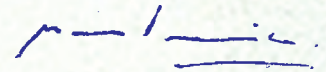
LOKASEVA BHAVAN
BHUBANESWAR

MESSAGE

Every year Wildlife Week is celebrated throughout the country from 2nd October to 8th October commemorating the Birth Anniversary of Mahatma Gandhi, the apostle of peace and nonviolence.

Wildlife Week is observed to raise awareness about the role of wildlife in maintaining ecological balance. Any damage to wildlife and their habitat can threaten the entire ecosystem. Therefore, it is crucial to protect wildlife eco-system.

This book, titled 'Wildlife Odisha-2023' being released on the occasion of celebration of Wildlife Week, is a ready reckoner on wildlife and conservation measures undertaken in the State. I hope that the book will be of immense help to all stakeholders including forester, nature lovers, researchers and those interested in wildlife conservation.



(NAVEEN PATNAIK)



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SHRI PRADIP KUMAR AMAT

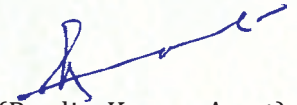
MINISTER

Forest, Environment & Climate Change
Panchayati Raj & Drinking Water
Information & Public Relations

MESSAGE

Our state is rich in biodiversity and famous for its iconic species like Olive Ridley Sea Turtle, Crocodiles, Elephant, Melanistic Tiger and Irrawaddy Dolphin. The Chilika lagoon and Bhitarkanika wetland are abode for the migratory avifauna. Our successful model “Community Based Ecotourism” adopted in the State is not only supplementing the livelihood of local community, but also encouraging them for protection of wildlife.

I am happy that Wildlife Organisation is bringing out this annual publication titled “Wildlife Odisha-2023”. It is hope that this will be very useful reference for the staff, administrators, wildlife researchers, students and nature lovers in their endeavour for conservation of wildlife.



(Pradip Kumar Amat)



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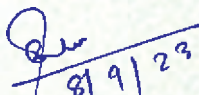
Satyabrata Sahu, IAS
Additional Chief Secretary Forest,
Environment & Climate Change
Department Govt. of Odisha

MESSAGE

Odisha is a biological hotspot with highly diversified rare and endangered flora & fauna. The varied topography of our state stretches from forests, hills, natural wetlands and valleys interspersed with human habitations. Such rich biodiversity, no doubt is a matter of pride for the State, but at the same time bestows a big responsibility for providing conducive conditions for thriving of such natural resources.

Wildlife Conservation entails protection and conservation of flora & fauna within and outside their habitats for which the State Government has created a network of Protected Areas like National Parks, Sanctuaries, Conservation Reserve, Tiger Reserves, Elephant Reserves & Biosphere Reserves.

I am happy that Wildlife Organization is bringing out this annual publication titled "Wildlife Odisha-2023" which is a compilation of wildlife management and conservation activities undertaken by Forest, Environment & Climate Change Department. It is hoped that this book will be very useful for the administrators, wildlife researchers, students and nature lovers in their endeavour for conservation of wildlife


8/9/23
(Satyabrata Sahu)



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Principal CCF (WL) &
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FOREWORD

Odisha, located on the eastern coast of India, is home to rich biodiversity and of varied geographical features. The State is unique in the Country in terms of wildlife such as presence of all three species of crocodiles found in India, melanistic tigers of Similipal, largest wintering ground for migratory birds in Chilika, mass nesting of Olive Ridley sea turtles at Gahirmatha and Rushikulya sea mouth and a significant lagoon population of Irrawaddy dolphins in Chilika, to name a few. In addition, the mangrove forests in the State have highest species diversity. And, Similipal is home to more than 90 species of orchids.

With such impressive floral and faunal assemblage, the State also witnesses conservation challenges in the form of human-wildlife conflict, development induced pressure on wildlife habitats, emerging diseases of wildlife etc. Addressing these challenges requires a multi-faceted approach involving strong governmental policies, community involvement, conservation initiatives, and public awareness to ensure long-term survival and sustainable management of wildlife. The State has taken many initiatives in addressing such issues.

This annual report of State Wildlife Wing titled "Wildlife Odisha - 2023" serves as a valuable platform to showcase our activities, raise awareness, and inspire people to be active participants in wildlife preservation. By collating our collective efforts and accomplishments, we can further strengthen the conservation of our natural heritage.

I am sure, this book will act as a catalyst for change, inspiring action and continuing our commitment towards a harmonious relationship between humans and wildlife. Let us work hand in hand to preserve our natural marvels and leave behind a legacy of a diverse and thriving planet for future generations.


(Sushil Kumar Popli)

INTRODUCTION

The State of Odisha is located between the parallels of 17.49'N & 22.34'N latitudes and meridians of 81.27'E & 87.29'E longitudes. It is surrounded by the Indian states of West Bengal to the north-east, Jharkhand to the north, Chhattisgarh to the west and north-west, Telangana to the south-west and Andhra Pradesh to the south. The State of Odisha has a Geographical Area of 1,55,707sq km. The Recorded Forest Area is 61,204 sq. km. which is 39.31% of its Geographical Area as per the India State of Forest Report (ISFR), 2021. The State has enhanced its Forest Cover by 537 sq. km w.r.t ISFR, 2019. And, as regard to mangrove forest, of the total increase of 17 sq. Km in the Country, Odisha alone has recorded more than 50% of the above increase in its mangrove cover. The total area in the State under protected area is 8869 Sq.km which is 5.69% of total geographical area.


The state has 19 Wildlife Sanctuaries, one National Park (Bhitarkanika), two Conservation Reserve (Similipal-Hadagarh-Kuldiha and Brutang Conservation Reserve), two Tiger Reserves (Similipal and Satkosia), three Elephant Reserves (Mayurbhanj, Mahanadi and Sambalpur), one Biosphere Reserve (Similipal) for addressing In-Situ conservation of wildlife. The State has 10 Zoos, out of which one Large Zoo (Nandankanan), three Small Zoos and six Mini Zoos have been established to take care of Ex-Situ conservation of animals. All the zoos are operated as per the Zoo Management Plan approved by the Central Zoo Authority, Government of India. The State Botanical Garden which aims to conserve flora is also under the control of Wildlife Wing and is managed by the Deputy Director, Nandankanan Zoological Park.

Odisha has total coast line of 480 kilometres which is very rich and home to preferred habitats of marine and estuarine flora and fauna. The State has the singular distinction of having three stretches of mass nesting beaches of endangered Olive Ridley Sea turtles including the world's largest breeding ground of Olive Ridley Sea turtle (*Lepidochelys olivacea*) at Gahirmatha, Rushikulya and Devi rookeries.

The state also attracts massive migratory bird populations which serves as their wintering grounds, prominent of which are Chilika (the largest wetland of Asia) and Bhitarkanika both both with "Ramsar Sites" Status.

Besides, there are 4 crocodilian research and conservation centres in the state, viz for Gharial in Tikarpada /Satkosia, Saltwater crocodile in Dangmal /Bhitarkanika, Muggar in Ramtirtha/ Similipal and captive breeding programme of all three Indian crocodilian species in Nandankanan Zoological Park respectively.





Further, so far 49 Ecotourism destinations have been developed with Eco-cottages and Tents for accommodating 1250 eco-tourists for night stay. The entire management is through community participation and the revenue generated is also ploughed back in full for further development of the sites besides supplementing the income of the community.

As of now, 539 nos. of EDC have been formed covering 43455.32 ha. of protected area; and people's participation plays a major role in conservation of wildlife.

The Wildlife Diversity of Odisha

The wildlife diversity of the state comprising of mammals, birds, reptiles, amphibians, fishes and a large variety of invertebrates, play a very important part in maintaining the balance of the eco-system. Each species has its own place and play its own role in the complex interaction of food-chains & food-webs. Intact forests with thriving wildlife are needed for smooth functioning of biogeochemical cycles, prevention of floods and soil erosion as well for efficient functioning of the water cycle.

There are 29 species of Amphibians, 131 species of Reptiles including 3 Crocodilians species, 537 species of Birds and 114 species of Mammals in the state. Of these, 54 endangered species 17 species of reptiles, 15 species of birds & 22 species of mammals as under IUCN Red Data Book.

The state has wildlife wealth of various animal life and iconic species of wild animals such as Elephant, Tiger, Leopard, Melanistic Tiger, Black Panther, Dolphin, Hyena, Wolf, Fishing Cat, Leopard Cat, Jungle Cat, Gaur, Sambar, Blackbuck, Spotted Deer, Wild boar, Giant squirrel, Pea Fowl, Hill Myna, Salt water Crocodile, Marsh Crocodile, Gharial, King Cobra, Sea turtle and Monitor lizard etc.

TAXA	NUMBER OF SPECIES			PERCENTAGE OF ODISHA TO INDIA
	WORLD	INDIA	ODISHA	
Mammals	5416	427	114	27%
Birds	9026	1340	537	40%
Reptiles	9232	584	131	22%
Amphibian	6776	414	29	07%
Fishes	32156	3361	>800	24%

MoEF & CC report, ZSI-2018; National Biodiversity Action Plan 2019 & Odisha Biodiversity Board report, 2019



Forest Cover in Odisha

The forest and tree cover of the State is being assessed and published in every two years by the Forest Survey of India, Government of India since 1997. The forest cover of the State in five years is as given below:

(Area in Sq.

Year	Geographical Area of Odisha	Very Dense Forest	Moderately Dense Forest	Open Forest	Total	Scrub	Tree Cover	Mangrove Cover
2021	155707	7213	20995	23948	52156	4924	5004	259
2019	155707	6970	21552	23097	51619	4327	4648	251
2017	155707	6967	21370	23008	51345	4306	3993	243
2015	155707	6985	21470	22005	50460	4499	3986	231
2013	155707	7042	21298	22007	50347	4424	4013	213

ISFR: 2013, 2015, 2017, 2019 & 2021

THE STATE ICONS of ODISHA

State Tree:

Kadamba (*Neolamarckia cadamba*)

State Flower:

Ashoka (*Saraca asoca*)

State Animal:

Sambar (*Rusa unicolor*)

State Bird:

Indian Roller (*Coracias benghalensis*)



National Heritage Animal : In October, 2010, Indian Government declared the Elephant as National Heritage Animal.

National Animal : Till 1973, the National Animal was Lion. With launch of Project Tiger, a National Tiger Protection Programme in 1973, the Tiger has since been accorded the status of National Animal.

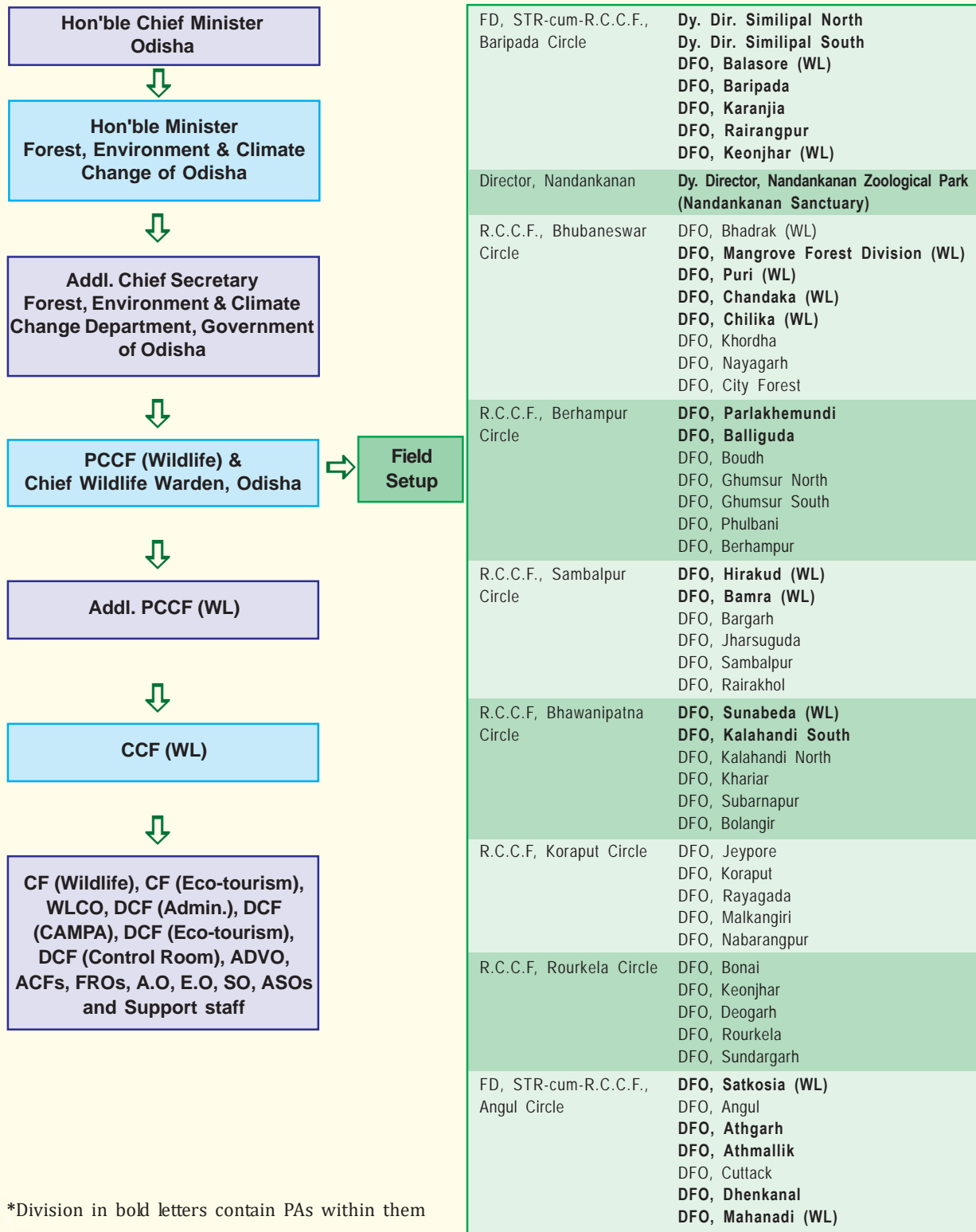
National Aquatic Animal : Gangetic Dolphin was declared as the national aquatic animal in October 2010.



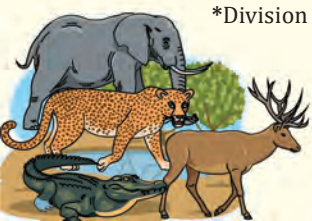
CHAPTER II

WILDLIFE WING

ORGANIZATIONAL STRUCTURE



*Division in bold letters contain PAs within them



STATE WILDLIFE HEADQUARTERS

The Wildlife Organisation is functioning at Prakruti Bhawan located on Plot No. 1459, Saheed Nagar, Bhubaneswar. The building has among others, a 50 seater Conference Hall, a 10 seater mini Conference Hall with video conferencing facility and a library with more than 3000 books on flora, fauna, law, management plans and other wildlife publications & journals. A 24x7 control room also functions in this building to get the update on almost real time basis to address the wildlife related issues. A GIS cell is set-up with Web-GIS technology for monitoring the elephant movement through the Mobile APP and other networks. The Eco-tourism cell with city booking centre for different Ecotourism destinations of entire State is also housed in the ground floor.

The State Wildlife Organization was formed on 14th August 1974, after adoption of the Wildlife (Protection) Act, 1972 and promulgation of the Wildlife (Protection) (Odisha) Rules, 1974. The State Wildlife Organisation is headed by Principal Chief Conservator of Forests (Wildlife) & Chief Wildlife Warden, Odisha. Presently, as per sanctioned strength the PCCF (WL.) & CWLW is supported by Chief Conservator of Forests (Wildlife), Two Conservator of Forests and Five Deputy Conservator of Forests in Headquarters.



Director, Nandankanan Biological Park, Field Director, Similipal Tiger Reserve-cum-RCCF, Baripada Circle, Field Director, Satkosia Tiger Reserve-cum- RCCF, Angul Circle, eight Regional Chief Conservator of Forests including two Field Directors (Similipal Tiger Reserve and Satkosia Tiger Reserve), three Dy. Directors and Divisional Forest Officers of 14 wildlife Divisions are managing the wildlife in their respective jurisdiction and reporting to the Wildlife Headquarter. However, 14 Wildlife Divisions are working under the exclusive administrative control of this organisation.

Further, Divisional Forest Officers of 37 Territorial Divisions are designated as Wildlife Wardens for their respective Divisions to look after the wildlife related matters under the control of Chief Wildlife Warden.



Release of Book "Study on Similipal-Satkosia Corridor" on dated 30.09.2022 at State Wildlife Headquarters Conference Hall



CHAPTER III

WILDLIFE MANAGEMENT

Wildlife management is the practice of protecting and managing the wildlife including flora and fauna in their natural habitat. It has become an increasingly important practice in order to mitigate the negative impact of human activity on their habitat. The strategies of wildlife conservation and management include both in-situ and ex-situ (captive) conservation, with the major objectives being the following:

1. Maintenance of essential ecological processes and life support systems.
2. Preservation of genetic diversity of both flora and fauna.
3. Maintaining sustainable levels of species and ecosystems.

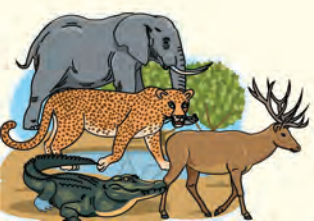
IN-SITU CONSERVATION

In-Situ conservation is on-site conservation or the conservation of genetic resources in natural population of plant or animal species in their natural habitat as well as to ensure the ongoing process of evolution and adaptation within that environment.

In the State of Odisha, the in-situ conservation is achieved in the following forms:

- a) Through the protected areas like National Parks, Sanctuaries and Tiger Reserves and Conservation Reserves as per The Wildlife (Protection) Act, 1972.
- b) Through other Protected landscapes like Elephant Reserves, Biosphere Reserves and Ramsar Sites.

The biodiversity rich areas of the state have been declared as Protected Areas as per prevalent laws. At present, Odisha has One National Park, Nineteen Sanctuaries, Two Tiger Reserves, One Biosphere Reserve, Two Conservation Reserves and Three Elephant Reserves. Proposals for declaring another National Park (Similipal) is under active consideration. Besides few more wildlife rich forests as protected areas.



The Protected Areas are situated in 2 Bio-geographic zones and 3 provinces in the state, the details of which is given below:

Zone	Province	Sub-Division	Sanctuary located in this region
Deccan Peninsula	Eastern Plateau	Eastern-Ghat	Baisipalli, Chandaka, Karlapat, Kotagarh, Lakhari, Nandankanan
		Chhatisgarh-Dandakaranya	Debrigarh, Sunabeda
	Chhota-Nagpur	Garhjat Hills	Badrama, Hadgarh, Khalasuni, Kuldiha, Satkosia Gorge, Similipal, Kapilash
Coasts	Eastern Coast		Balukhand, Bhitarkanika, Gahirmatha, Nalabana

PROTECTED AREAS (PAs) NETWORK OF ODISHA

A. NATIONAL PARK

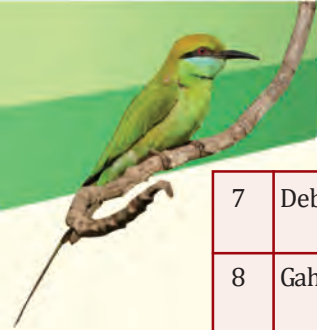
Name of National Park	Administrative control	Situated in the district	Notification No. & date	Area in Sq.km.
Bhitarkanika National Park	DFO, Mangrove Forest Division (WL), Rajnagar /RCCF, BBSR.	Kendrapara	19686 dt.16.09.98 (Final)	145.00

NB: For Similipal (Proposed National Park) in Mayurbhanj over an area of 845.70 sq.kms the State Government have already issued Notification u/s 35 of the wildlife (Protection) Act vide Notification No. 18703 dated 06.08.1980 and No. 19525 dated 11.06.1986 declaring the intension to constitute the said area as National Park.

B. WILDLIFE SANCTUARIES

SL No.	Name of Sanctuary	Administrative control	Situated in the district	Notification No. & date	Area in Sq.km.
1	Bhitarkanika	DFO, Mangrove Forest Division (WL), Rajnagar /RCCF, Bhubaneswar	Kendrapara	2289 Dt.01.02.2020	673
2	Balukhand-Konark	DFO, Puri (WL) Division / RCCF, Bhubaneswar	Puri	15216 Dt.01.09.1987	70.40
3	Baisipalli	DFO, Mahanadi (WL) Division/RCCF, Angul	Nayagarh	25335 Dt.06.05.1981	168.35
4	Badrama	DFO, Bamra (WL) Division/ RCCF Sambalpur	Sambalpur	23393 Dt.17.12. 1987	304.03
5	Chilika (Nalban)	DFO, Chilika WL. Division, Balugaon/ RCCF, Bhubaneswar	Puri	23403 Dt.17.12.1987	15.53
6	Chandaka-Damapara	DFO, Chandaka (WL) Division /RCCF, Bhubaneswar	Khurda, Cuttack	13482 Dt.10.06. 1988	193.39



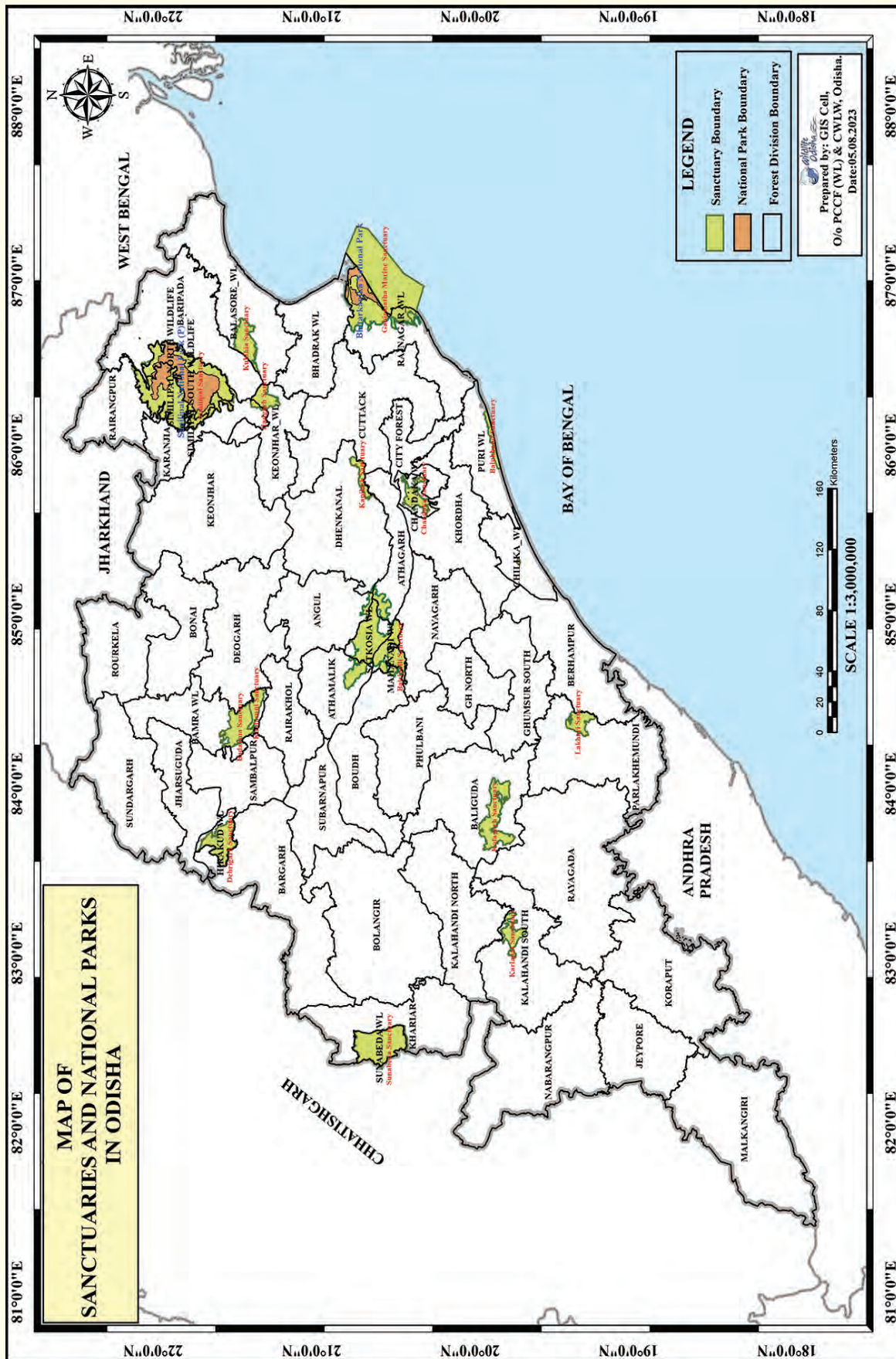


7	Debrigarh	DFO, Hirakd WL. Division /RCCF, Sambalpur	Sambalpur	2409 Dt08.02.1985	346.90
8	Gahirmatha (Marine)	DFO, Mangrove Forest Division (WL), Rajnagar/RCCF, Bhubaneswar	Kendrapara & Bhadrak	18805 Dt27.09.1997	1435.00
9	Hadgarh	DFO, Keonjhar (WL) Division /RCCF, Baripada	Keonjhar	34113 Dt06.12.1978	191.06
10	Khalasuni	DFO, Bamara (WL) Division/RCCF, Sambalpur	Sambalpur	584 Dt07.01.1982	116.00
11	Kuldiha	DFO, Balesore (WL) Division /RCCF, Baripada	Balasore	243 Dt04.01.1984	272.75
12	Nandankanan	Dy. Director, Nandankanan /Director, Nandankanan, Bhubaneswar	Khordha	20682 dt03.08.1979	4.37
13	Similipal	Dy. Director, Similipal (North & South) /RCCF, Baripada	Mayurbhanj	30467 Dt03.12.1979	2306.61
14	Satkosia Gorge	DFO, Satkosia (WL) Division & Mahanadi (WL) Division /RCCF, Angul	Angul, Boudh	26865 Dt14.12.2018	968.35
15	Sunabeda	DFO, Sunabeda (WL) Division/RCCF, Bhwanipatna	Nuapada	10772 Dt10.05.1988	600.00
16	Karlapat	DFO, Kalahandi (South) Division /RCCF, Bhwanipatna	Kalahandi	5958 Dt01.05.2023	193.998
17	Lakheri-valley	DFO, Parlakhemundi Division /RCCF, Berhampur	Ganjam, Gajapati	2333 Dt08.02.1985	185.87
18	Kotgarh	DFO, Baliguda Division /RCCF, Berhampur	Kandamal	30253 Dt03.12.1981	399.05
19	Kapilash	DFO, Dhenkanal Division /RCCF, Angul	Dhenkanal	5937 Dt02.04.2011	125.50

Proposed Sanctuary

Sl No	Name of Reserve Forest	Name of Division	Name of District	Present Status	Area in Sq. Km.
1	Northern RF	DFO, Athmallik	Angul	Under examination for appropriate action	192.32 Sq. km.
2	Berbera RF	DFO, Khordha	Khordha		358.10 Sq. km.
3	Gandhamardan PRF	DFO, Bargarh DFO, Balangir	Bargarh, Bolangir		191.01 Sq. km.





Map-1. Map of Sanctuaries and National Parks in Odisha



C. ELEPHANT RESERVE (ERs) NETWORK

The State Government has notified three Elephant Reserves (ERs) in the state for better management of wild elephants. These are Mayurbhanj Elephant Reserve, Mahanadi Elephant Reserve and Sambalpur Elephant Reserve. Details of area, Notification No. & Date, Division and covered District are given below. Within the three notified Elephant Reserves, an estimated 969 elephants reside. About 50% of Odisha elephants have a secured habitat in the ERs, with total area of 8509 sq. km. There are seven Wildlife Sanctuaries located within these three ERs (including Similipal Tiger Reserve). Out of total geographical area of 8509 sq.km. of ERs, 4597.71 sq.km. (i.e 54%) area is under Protected Area network as Sanctuary and Tiger Reserve.

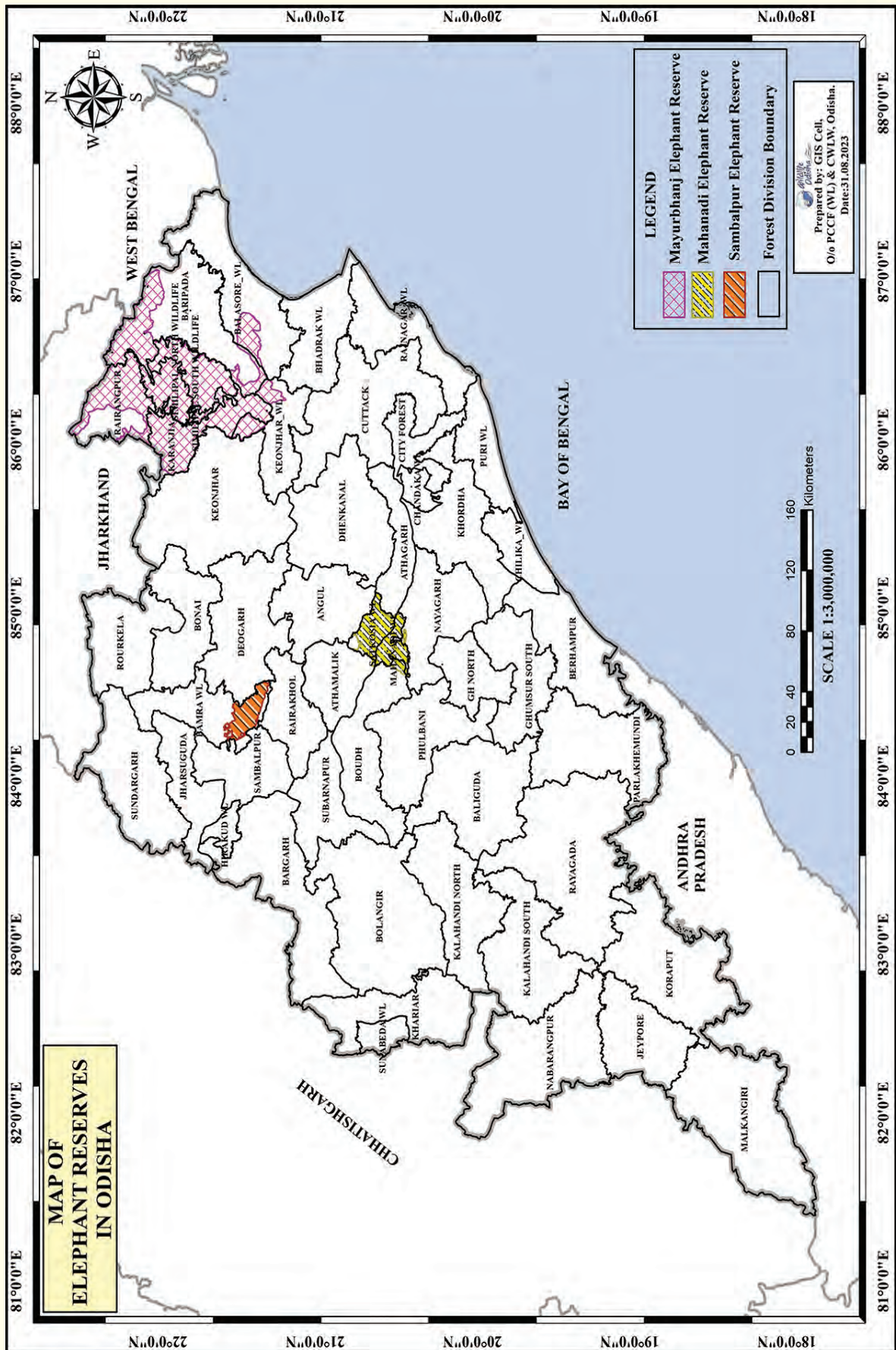
List of Elephant Reserves

Sl. No.	Name of the Elephant Reserves	Area Sq. Km.	Notification No. and Date	District	Division	Protected Area Network
1	Mayurbhanj Elephant Reserve	7043.74 sq.km	Notification No. 8F(W) 42/2001 /15806 Dated 29.09.2001	Portion of Mayurbhanj, Balasore & Keonjhar	Similipal North, Simlipal South, Karanjia, Baripada, Rairangpur, Balasore WL, Keonjhar WL	Hadgarh, Kuldiha and Similipal WL Sanctuary, Similipal NP and Similipal TR
2	Mahanadi Elephant Reserve	1038.30 sq.km	Notification No. 8F(W) 17/2002 /10162 Dated 19.06.2002	Portion of Angul, Boudh, Cuttack Nayagarh	SatkosiaWL, Mahanadi WL, Boudh, Athagarh, Nayagarh	Satkosia and Baisipalli WL Sanctuary
3	Sambalpur Elephant Reserve	426.91 sq.km	Notification No. 8F(WL) 10/2002 /5840 Dated 27.03.2002	Sambalpur	Bamra WL	Badrama and Khalasuni WL Sanctuary

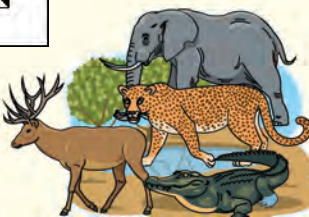


Mother with cubs of Asian elephant, Satkosia





Map 2. Map of Elephant Reserves in Odisha



PROPOSED EXPANSION OF ELEPHANT RESERVES

The expansion of area of elephant reserve as indicated below is also under examination for appropriate action.

Sl. No.	Name of the Elephant Reserves	Existing Area (in Sq. Km.)	Proposed Land Type (Area in Sq Km)			Total Proposed Area (in Sq Km)	Total Area after proposed Expansion (in Sq. Km.)
			Reserve Forest	Other Forest	Non Forest		
1.	Mahanadi Elephant Reserve	1038.30	971.751	114.235	57.235	1143.222	2181.521
2.	Sambalpur Elephant Reserve	426.91	1221.584	89.55	59.004	1370.138	1797.048

With this addition of 1143.222 sq. km. in Mahanadi Elephant Reserve and 1370.138 sq. km. in Sambalpur Elephant Reserve, about 75% of elephant population of elephants will be moving in secured habitat in Elephant Reserves.



Tusker searching of food, Keonjhar Wildlife Division



D. TIGER RESERVES

Tiger Reserves are visualized as breeding ground from which surplus tiger population would migrate to adjacent forests. Conceived under the Project Tiger launched in 1973, these aim to conserve the habitat for ensuring a viable population of Royal Bengal Tigers along with their prey base in the habitat.

List of Tiger Reserves

Sl. No.	Protected Area	Area in Sq.Km.	Notification No. and Date	District
1	Similipal Tiger Reserve	2750.00 sq.km.	Notification No.8F(T)-9/2007/20801/F&E Dated 31.12.2007	Mayurbhanj
2	Satkosia Tiger Reserve	1136.70 sq.km.	Notification No.8F(WL) 15/2018-26865 Dated 14.12.2018	Angul, Nayagarh and Boudh

List of proposed Tiger reserve

Sl. No.	Protected Area	Proposed Area Sq. Km.	Present status	District
1	Sunabeda TR	1083.0980 sq. km.	The recommendations of NTCA is under examination for appropriate decision	Nuapada
2	Debrigarh TR	457.01 sq. km.		Sambalpur

E. BIOSPHERE RESERVE

Biosphere Reserve is intended to preserve genetic diversity in representative ecosystems and provide opportunities for research on ecosystem processes in nature. Criteria for selection of Biospheres include representativeness, naturalness, biological diversity etc. as effective conservation unit.

List of Biosphere Reserve

Sl.No.	Protected Area	Area Sq. Km.	Notification No. and Date	District
1	Similipal Biosphere Reserve	5569 sq.km	Notification No.8/96/11319 & Dated 20.05.1996	Mayurbhanj

Proposed Biosphere Reserve

Sl. No.	Protected Area	Area Sq. Km.	Proposal status	District
1	Mahendra Giri	Core: 42.54 Buffer: 1570.31 Transitional area: 3145.01 Total: 4757.86	Under examination for appropriate consideration	Gajapati



Similipal Biosphere Reserve

A	Area of Biosphere Reserve:	5569 sq.km.
B	Zonation:	
	(i) Core area	845 sq.km.
	(ii) Buffer area	2129 sq.km.
	(iii) Transition area	2595 sq.km.
C	Villages:	
	(i) No. of Villages in the Core area	1
	(ii) No. of villages in the Buffer area	64
	(iii) No. of villages in the Transition area	1200
D	Population:	3.5 lakh
	(i) Tribal population	73.44%
	(ii) SC population	5.21%
	(iii) Other population	21.35%
E	Common Tribes: Bhumija, Bathudi, Kolha, Ganda, Santhal, Khadia, Mankadia	

Similipal Biosphere Reserve is located in the district of Mayurbhanj. Similipal and adjoining area comprising of 5569 sq. km. was declared as a Biosphere Reserve on 22nd June, 1994, with the objectives of


- Conservation of the area as a representative ecosystem of the "Mahanadian Biogeographic Region".
- Provision of long term in-situ conservation of genetic diversity
- Promotion of basic and applied research and monitoring; and
- Dissemination of experience for education and training.

The vegetation in the Biosphere Reserve is a mix of different forest types and habitats, with Northern tropical moist deciduous type dominating some semi-evergreen patches. Sal is the dominant tree species here. Similipal also has extensive grasslands that are grazing grounds for many of the herbivores. These forests boast of many plants that have medicinal and aromatic properties. An outstanding 1078 species of plants including 94 species of orchids find their home in the forest. Similipal is known for wide variety of fauna like the tiger, elephant, leopard, gaur etc. along with rich avifauna. It holds the highest tiger population in the state. 55 species of mammals, 304 species of birds, 60 species of reptiles, 21 species of frogs, 38 species of fishes and 164 species of butterflies have been recorded there.

Similipal Protected Landscape (BR, TR, ER, NP, Sanctuary)

Similipal Tiger Reserve originated as a hunting ground for the surrounding royalty. It was formally designated as tiger reserve under Project Tiger in April 1973. The Government of Odisha declared Similipal as a wildlife sanctuary in 1979 with an area of 2750 sq. km. in 1980, Government of Orissa declared its intention proposing 303 sq. km of the sanctuary as



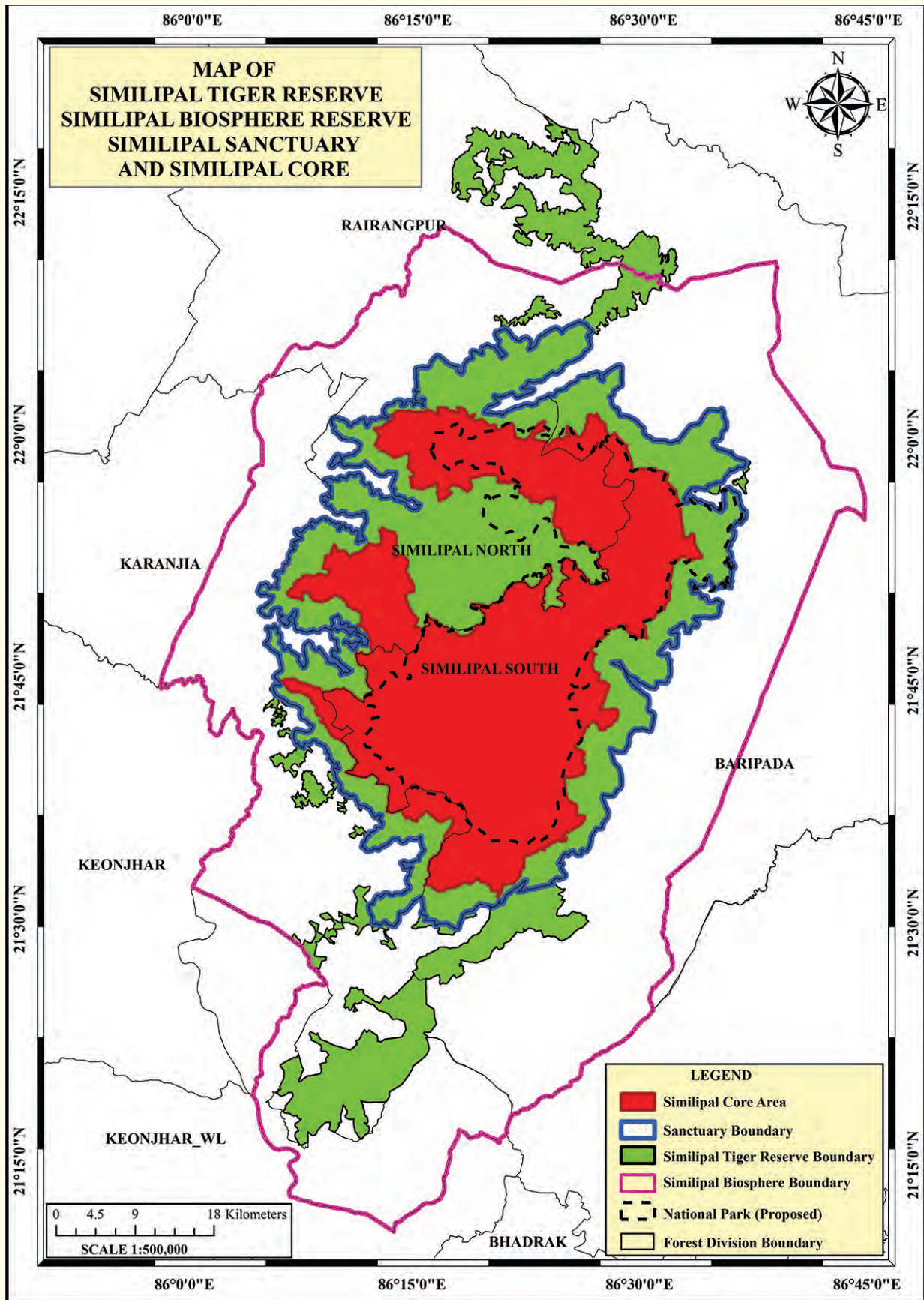


National Park and increased the said area in 1986 to 845.70 sq. km. For its final notification as National Park determination of existing rights of surrounding / soul Bakua village in this, is under way. The Government of India declared it as a Biosphere Reserve in 1994. UNESCO added this Sanctuary and neighbouring area to its list of Biosphere Reserves in May 2009. This tiger reserve also comes under Mayurbhanj Elephant Reserve that includes the adjacent Hadgarh and Kuldiha Wildlife sanctuary. The landscape has some beautiful waterfalls like Joranda and Barehipani surrounded by high plateaus and hills, the high peaks being the twin peaks of Khairiburu and Meghashini (1515m above mean sea level). At least twelve rivers cut across the plain area, all of which drain into the Bay of Bengal. The prominent among them are Budhabhalanga, Palpala, Bhandan, Salandi, Khairi and Deo.



Sighting of Hill Myna in Similipal Biosphere Reserve area





Map 4: Map of Similipal Tiger Reserve/Similipal Biosphere Reserve/Similipal Sanctuary and Similipal core area



F. RAMSAR SITES

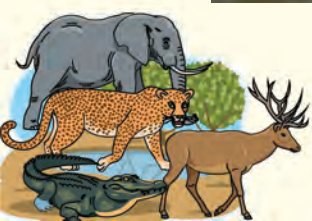
The Ramsar Convention is an international treaty for the conservation and sustainable utilization of wetlands, recognizing the fundamental ecological functions of wetlands and their economic, cultural, scientific, and recreational value. The following are the Ramsar wetland sites in the state:

SlNo	Name of sites	Name of Division	Name of District	Date of Declaration	Area in Sq.Km
1	Chillika Lake	Chillika Wildlife Division, Balugaon	Khorda, Puri, Ganjam	Date: 01.10.1981	1,165
2.	Bhitarkanika Mangrove	Mangrove Forest Division (WL), Rajnagar	Kendrapara	Date:19.08.2002	650
3.	Satkosia Gorge	Satkosia WL and Mahanadi WL	Angul, Boudh, Dhenkanal, Cuttack, Nayagarh	Date: 10.12.2021	981.97
4.	Ansupa Lake	Athgarh Forest Division	Cuttack	Date: 13.08.2022	2.31
5.	Hirakud Reservoir	Hirakud Wildlife Division	Sambalpur	Date: 13.08.2022	654.00
6.	Tampara Lake	Berhampur Forest Division	Ganjam	Date: 13.08.2022	3.00

(Source: Envis Centre on Wildlife & Protected Areas, MoEF&CC, Govt. of India)



Salt water crocodile basking at Bhitarkanika National Park



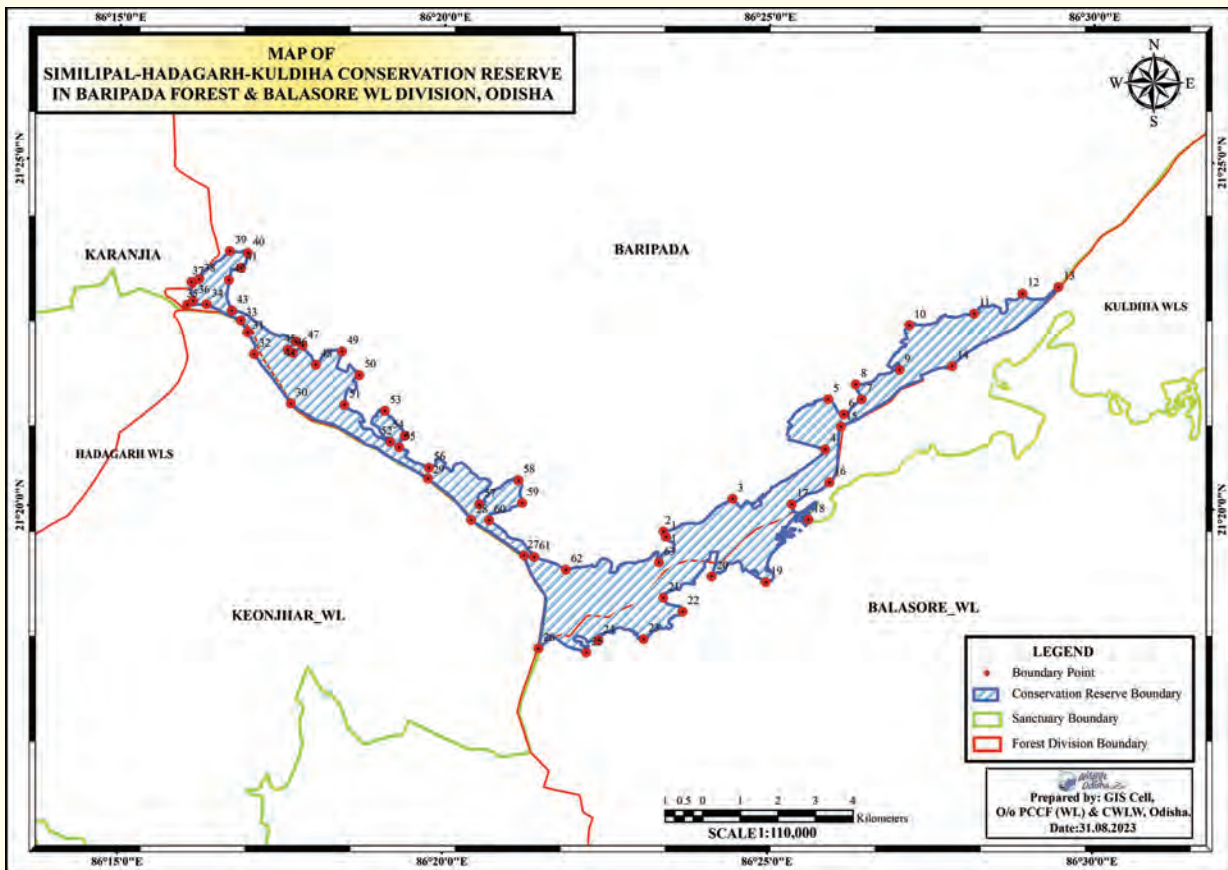
G CONSERVATION RESERVES

Similipal -Hadgarh- Kuldiha Conservation Reserve

Conservation Reserve is constituted comprising of Government lands adjacent to a Protected Area and those land which link one protected area with another for protecting landscapes, seascapes, flora, fauna and their habitat under Section 36A of the Wildlife (Protection) Act. The Conservation Reserve is managed by a Conservation Reserve Management Committee constituted for the purpose.

First Conservation Reserve of the State is Similipal-Hadgarh-Kuldiha Conservation Reserve constituted vide Govt. Notification No. 1166 dated 20.01.2023 over an area of 29.41 sq. km spread over the Districts of Balasore and Mayurbhanj.

The area of Conservation Reserve is 2941.363 ha.

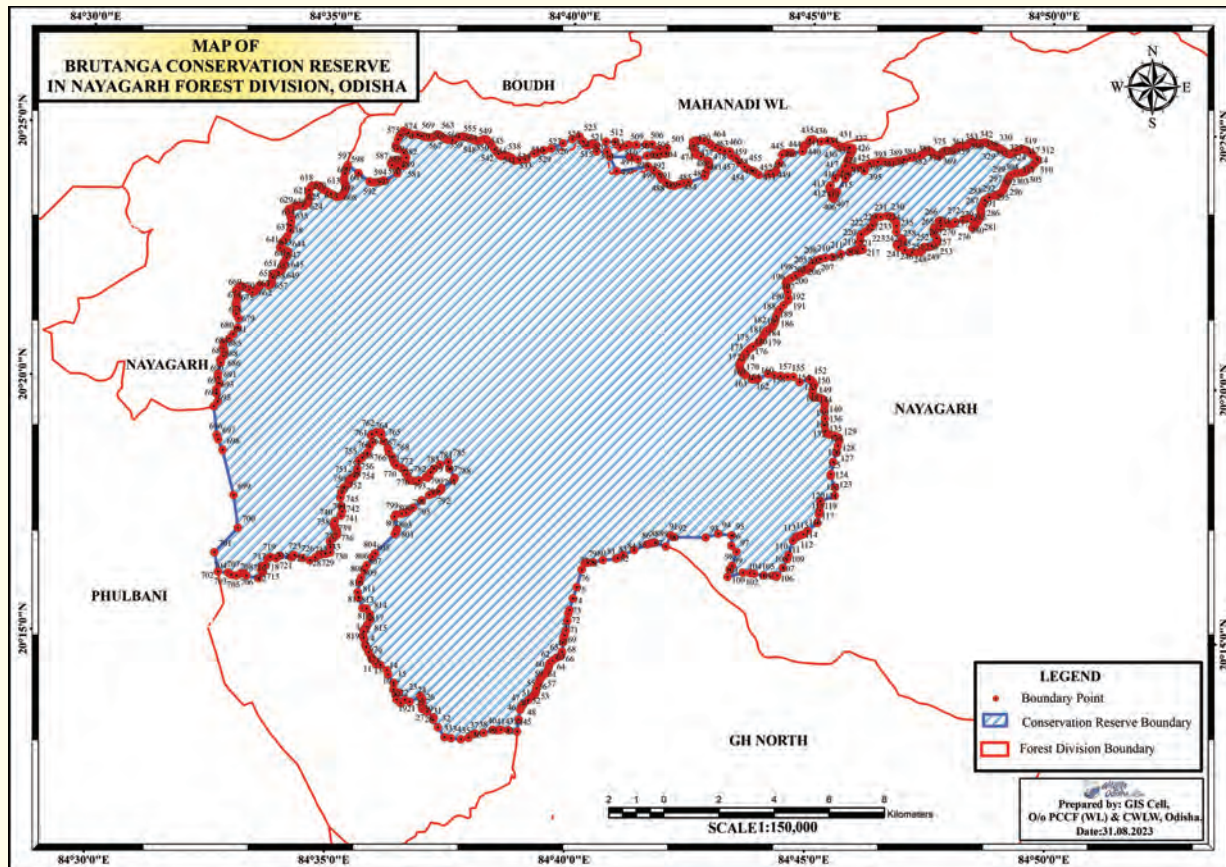


Map 6: Map of Similipal - Hadgarh - Kuldiha Conservation Reserve



Brutanga Conservation Reserve

And, recently Brutanga Conservation Reserve the second in the state has been notified vide Govt. Notification No.19320 dated 12.09.2023 over an area of 269.49sq.kms and entirely existing in Nayagarh District. It is adjacent to the southern boundary of the Baisipalli Wildlife Sanctuary between Takara in the east and Banigochha in the west, covering Central Reserved Forest, Chandhpalli Reserved Forest, Nasagarh Reserved Forest and the entire proposed Brutanga water reservoir.



Map 7: Map of Brutang Conservation Reserve





EX-SITU CONSERVATION

ZOOS IN ODISHA

Zoos play an important vital role in ex-situ conservation of wildlife. It provide eco-system awareness, nature interpretation and environmental education. It also facilitates research on wild animals maintained in captivity and help in maintaining the gene pool of the critically endangered species. They serve as rescue centres for straying wild animals rescued from nearby human habitations. Zoos in India are regulated by Central Zoo Authority, Govt. of India under the provisions of Section-38H of the Wildlife (Protection) Act, 1972 and are guided by the National Zoo Policy, 1998. The Government of India have formulated "Recognition of Zoo Rules, 2009" and fixed standards and norms for management of Zoos in the country. Central Zoo Authority (CZA), which is a statutory body under the Ministry of Environment & Forests, Govt. of India over sees the functioning of Zoos in the country and provides technical guidance and assistance as assigned under Section 38C of the Wildlife (Protection) Act, 1972. The CZA also regulates minimum standards and norms for upkeep and health care of animals in Indian Zoos and controls mushrooming of unplanned and ill-conceived Zoos which used to crop up in the country as adjuncts to public parks, industrial complexes and waysides. State Wildlife Organization with technical support from the Central Zoo Authority, endeavours to maintain standards and quality of the Zoos, so that the very purpose of operating Zoos is achieved.

Presently, 10 Zoos (6 mini, 3 small and 1 large zoo) have been established in the state to take care of ex-situ conservation of animals. All the zoos are operated as per the Zoo Management Plan approved by the Central Zoo Authority (CZA) and managed scientifically.

Sl. No.	Name of the Zoo & Deer Parks	Location (Revenue District)	Name & Present status/ Notification	Managed by
1	2	3	4	5
1	Nandankanan Zoological Park	Khordha	Large Zoo/ CZA Office Memorandum Date 25.08.2020	Director, Nandankanan Zoological Park, Bhubaneswar
2	Kapilash Deer Park	Dhenkanal	Small Zoo/ CZA Office Memorandum Date 25.08.2020	DFO, Dhenkanal Division
3	Sambalpur Zoo and Conservation Center, Motijharan, Sambalpur	Sambalpur	Small Zoo/ CZA Office Memorandum Date 25.08.2020	DFO, Hiraakud Wildlife Division
4	Harishankar Deer Park	Bolangir	Mini Zoo/ CZA Office Memorandum Date 25.08.2020	DFO, Bolangir Forest Division
5	Taptapani Deer Park	Ganjam	Mini Zoo/ CZA Office Memorandum Date 25.08.2020	DFO, Parlakhemundi Forest Division
6	Kuanria Deer Park	Nayagarh	Mini Zoo/ CZA Office Memorandum Date 25.08.2020	DFO, Mahanadi Wildlife Division

7	Papadahandi Deer Park	Nabarangpur	Mini Zoo/ CZA Office Memorandum Date 25.08.2020	DFO, Nabarangpur Forest Division
8	Gharial Research and Conservation Unit (GRACU), Tikerpada	Angul	Mini Zoo/ CZA Office Memorandum Date 25.08.2020	DFO, Satkosia Wildlife Division
9	HAL, Sunabeda Deer Park	Koraput	Mini Zoo/Notification No.F.No.19-42/93-CZA(209) (M)/3063 Date: 24.06.2013	HAL, Sunabeda
10	Indira Gandhi Park zoo and Deer Park	Rourkela	Small Zoo/Notification No.F.No.19-155/93-CZA(199) (Vol.III)(M)/4096 Date: 07.01.2014	SAIL, Rourkela



NANDANKANAN ZOOLOGICAL PARK

Nandankanan Zoological Park is one among premier large Zoos of India located amidst beautiful natural surroundings spreading over an area of 362.1 Hac. in the outskirts of Bhubaneswar. The Zoological Park was dedicated to public on 29th December, 1960. The undulating topography with natural moist deciduous forest, water bodies and enchanting landscape provides the zoo inhabitants an appropriate ambience to live in harmony with nature.

An area of 1043.32 Hac. from adjoining Chandaka - Dampada Wildlife Sanctuary is added to the Zoo to have more intensive ex-situ conservation measures and awareness generation. Master plan has also been prepared and submitted to CZA for approval. The proposed intervention including Night out / safari are incorporated to make it the world class Zoo. And, already steps have been taken in this direction.

In fact, the mission of the Zoological Park is to achieve the distinction of an outstanding zoo through World Class Conservation, Education, Research and Exciting Visitor Experiences by connecting people to biodiversity conservation.

Visitors

Total 37,13,935 visitors had their footfall at Nandankanan during the year 2022-2023 (From 01st April, 2022 to 31st March, 2023).

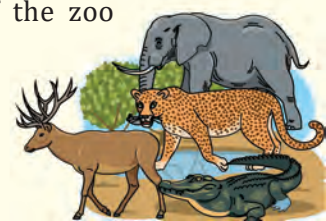
Revenue

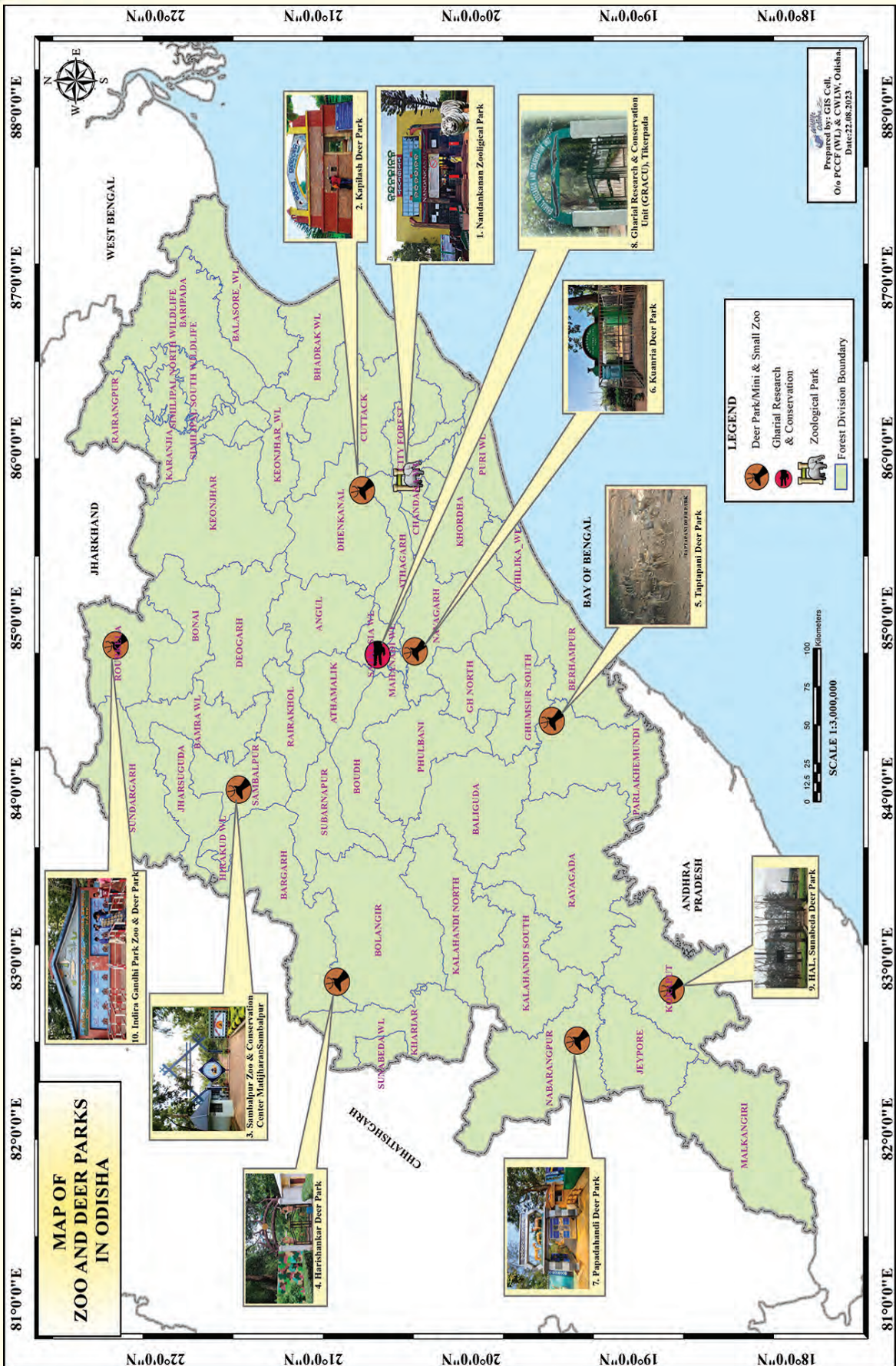
An amount of Rs. 205,852,862/- has been generated during the year 2022-23 (From 01st April, 2022 to 31st March, 2023) towards revenue from entry ticket and other facility.

NEW FACILITIES

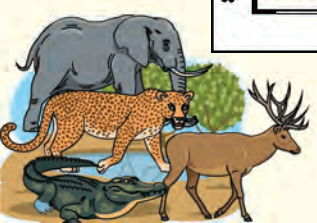
Nursery for Hand rearing of animal babies

Nandankanan zoo receives orphaned and rescued wild animal babies from all across the state on regular basis for their hand raising and rehabilitation. Animal babies of the zoo





Map 8: Map of Zoo and Deer Parks in Odisha



animals also require bottle feeding due to mother rejection and in health issues. 'Nursery for hand rearing of animal babies' is a centre categorically designed to cater all these needs. The centre has the facility for the animal keeper to stay inside for rearing of new-born round the clock. It has one milk preparation area, one neonatal ICU for sick neonates, separate cells for carnivore, herbivore and primate babies. The centre is attached to five small closed roof paddock areas where the animal babies can have exercise and access to sunlight. This fully airconditioned facility will definitely boost our efforts in rearing rescued hapless neonates.



Renovation of Children's Park

The children's park is situated near fountain square of Nandankanan Zoological Park with area of 16000 sq. ft. Children Park has renovated with beautiful landscaping & new Play equipments are such as-Swing-3nos, Slider-2nos, Merry Go-ground-1no, Spring Rider-3nos, Double see-saw-1no, Air walker-1no, Pendulum-1no, Trampoline (10')-1no, ABS Trainer-1no, Spinner-1no & Multi-Play station-1no. For maintaining cleanliness, ten nos of dustbins were fixed at different points of the park. 13 nos. of Sit outs are placed at different places of parks for sitting purpose. Different informative signages are given like birds of Nandankanan, State symbols of Odisha, Tree signages etc. for giving better information to children.





Operation Theater

Nandankanan has always tried to provide best healthcare facility for its denizens. The new 'Operation theatre' has all advanced facilities for surgical intervention of sick captive animals. The centre has facilities for gaseous anesthesia, oxygen supply, patient monitor, ventilator facility, ultrasonography, electro cautery system for bloodless surgery. The centre is fully air conditioned and fitted with ultraviolet lights for effective disinfection. It has all advanced instruments required for safe and successful surgery to take our healthcare facility to next level.



Species Recovery of Gharial in the river Mahanadi

Odisha is the only state of India with all three species of crocodilian; Gharial (*Gavialis gangeticus*), Mugger (*Crocodylus palustris*) and Saltwater crocodile (*Crocodylus porosus*). Mahanadi is one of the major rivers of India, and the southernmost distribution limit of the gharial. Rehabilitate gharials in the river Mahanadi following strict post-release monitoring protocols, Forest Department of Odisha initiated a project "Species recovery of Gharial in river Mahanadi" in 2019. Under the project, a total of 19 gharials captive bred gharials of Nandankanan Zoological Park consisting of 7 males and 12 female gharials were released in different batches in the river measuring 1.5m to 3.85m in length and aged between 5 to 16 years. Before the release, a survey was conducted to find out suitable release site(s) by evaluating river geo physiography and anthropogenic activities.

All released Gharials were tagged with transmitters; 13 with radio transmitters and 6 with satellite transmitters for post-release monitoring. Three post-graduate research scholars were engaged for post-release monitoring. The transmitters helped the technical team to track gharials individually their daily activity, habitat use, seasonal dispersal pattern, breeding biology and threats. Conservation measures also includes implementation of a 10 km. 'NO FISHING ZONE' in Satkosia gorge, involvement of 14 forest divisions on both sides of the river Mahanadi for implementation of protection measures, community participation and awareness, compensation for damaged fishing net and a reward of Rs.1000 for a live gharial if caught in the net.

One of the adult female gharials moved downstream about 120 km. and passed through a nylon fishing net and got its jaws wrapped up in torn net. She was rescued successfully with the cooperation of the rescue team from Nandankanan, local forest staff and fishermen using

cast net and encirclement net. At present 5 adult individuals are being tracked. The other 8 gharials have reported dead and for remaining 6 numbers of gharials location could not be ascertained due to loss of signal. Out of the 8 recorded deaths, 2 died due to blasting, 4 by entanglement in nylon nets, 1 killed by mugger and 1 due to *Clostridium haemolyticum* infectious origin, the cause of which under investigation, indicating major threats to survival as deleterious fishing activities, disturbed habitat, perceived interspecific conflict between gharial and mugger in the habitat.

Due to stringent protection efforts, research studies, implementation of the 'NO FISHING ZONE' and community awareness to reduce disturbances may have contributed to the natural breeding of gharials after a gap of 40 long years of Satkosia gorge sanctuary and hatching of 28 hatchlings in May, 2021 and 32 hatchlings in May, 2022, and 35 hatchlings in May, 2023. Provision of reward resulted in 7 numbers of gharial hatchlings/yearlings caught in fishing net were handed over by local fisherman to local field staff/technical team. These hatchlings/yearlings were brought to Nandankanan Zoological Park for post-rescue care and will be subsequently release back in the river near their mother after the flood season. The tenure of first phase of the project completed on 30th June 2023. The 2nd phase of the project is planned to be implemented with the intensive awareness, protection along with release of adult size gharials by tagging both VHF and GPS.

The implementation of the Species recovery of Gharial in river Mahanadi project helped in identifying the factors affecting survival of gharial in the river Mahanadi and improved the understanding on their ecology and behaviour which will help in shaping implementation of future conservation measures to save this species in its southern most habitat.



Pangolin Conservation Programme

Worlds only conservation breeding centre for Indian pangolin was established in Nandankanan Zoo. So far, 11 progeny have been born. The facility is currently housing 27 Indian pangolins

Animal Exchange Programme

A pair of Hoolock Gibbon (Only Ape in the Indian sub-continent) brought to Nandankanan Zoo under Animal Exchange Programme from Itanagar Zoo, Arunachal Pradesh. This added to the diversity of animal species in the Zoo.





Portable Digital Radiography (DR) system

This is an advanced form of light weight, x-ray imaging system, which is easy to carry to the field level and can be operated even in absence of electricity using one small generator. This has already been proved as a great diagnostic tool at the enclosure level inside the zoo as well as inside forest areas.



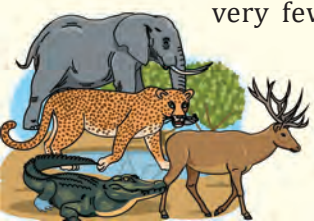
Ultrasonography Machine

As a mandate to provide best quality diagnostic facility for its denizens, Nandankanan Biological Park has procured an advanced colour Doppler veterinary specific ultrasonographic machine which will definitely aid in timely diagnosis of the diseases and effective treatment thereof.



Endoscopy machine

Endoscopy is a specialised procedure that is helpful in examining the internal structures to perform diagnostic and therapeutic procedures. Nandankanan Zoological Park is only among very few zoos of the country to have such advanced facility for its captive animals.



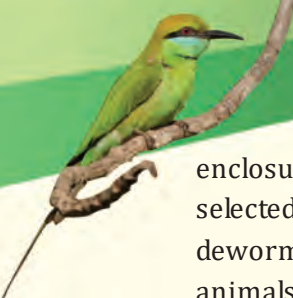


Initiation of Mobile Veterinary Unit (MVU) at Nandankanan

SAMBALPUR ZOO & CONSERVATION CENTRE, SAMBALPUR

“Sambalpur Zoo and Conservation Center” is a Small Zoo at the heart of the Sambalpur housing more than 330 animals of 16 species on 13.52 hectare area. Established in the year 1980 as Deer park, it has been renamed as “Sambalpur Zoo & Conservation Center” in the year 2023. Sambalpur Zoo has Carnivores like Leopard & Indian Palm Civet, herbivores like Chousingha, Sambar, Spotted Deer, Barking Deer, Wild Boar, good population of Sloth Bear and colorful exotic birds like Cockatiel & Budgerigar with other small mammals and birds in 27





enclosures. Sambalpur Zoo has also taken initiatives for conservation breeding programme of selected species. Zoo has a regular veterinarian under Zoo Director and regular vaccination, deworming and disinfection schedules are taken up. For strengthening veterinary care to the animals, a Zoo Hospital has been established during the year 2022-23 with modernized equipment's and operation facility. During the year 2022-23 and 2023-24, a rescue center has been established for rescue and rehabilitation of different kind of animals, extension of Leopard enclosure, renovation of sewage & drainage facilities, cabling of electric lines, children's park, Interpretation Centre etc has been completed. A Botanical garden of three hectare area has been established with more than 6000 plants of different varieties within the green belt inside the Zoo. This year visitor facilities have been strengthened by adding toilets and drinking water facilities at convenient locations, sit outs and rest areas at various places, one battery operated vehicle, guide maps, first aid facilities at Zoo Hospital for visitors, publications etc. A new refreshment kiosk and souvenir shop has been added outside the Zoo for visitors. Every year more than 1.5 Lakh visitors from Odisha and Chhattisgarh visit this Zoo. The number of visitors during financial year 2022-23 was 1.73 Lakh. The Zoo offers guided tour traversing 75% of the animal housing area and Botanical garden. During the year 2023, adequate steps have been taken for adding different types of enrichment (social, cognitive, physical) for the Leopard, Bear, Rhesus Monkey, Spotted deer, Rock Python and Birds. Renovation of entry gate of the Zoo, display of bilingual signages, renovation of reptile enclosures & aqua house, addition of few important animals species, engagement of a Biologist, development of research/ training and recreation facilities, establishment of Orchidarium & Bamboosetum etc are under progress for up scaling Sambalpur Zoo.

Beside captive animals, Sambalpur Zoo also has many free living wild animals inside it like Indian Grey Mongoose, Indian Peafowl, Lapwing, Grey Hornbill, Shikra, Jungle Babbler, variety of owls, Krait, Cobra etc. Central Zoo Authority has renewed the recognition of "Sambalpur Zoo and Conservation Center" up to 7th December 2024 after successful evaluation of the Zoo. Every Saturday, "Story Telling Sessions" by eminent speakers on Wildlife and Conservation are being conducted for children and youth.







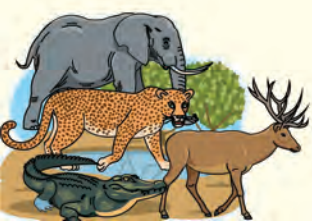
KAPILASH MINI ZOO

The present Kapilash zoo situated in Kapilash Range of Dhenkanal Forest Division came up as a Deer park on 26th January, 1979 over an area nearly 05 Ha in the foothills of Kapilash R.F situated at a distance of around 20 km from Dhenkanal town. The zoo was established to provide a source of entertainment and to propagate a sense of nature and wildlife conservation among the tourists, who visit the famous temple of Lord Chandrasekhar. Subsequently the adjacent area of Kapilash R.F and some Debottar land have been included and the present area of this Kapilash zoo is of 26.64 Ha. This park got recognition of State authorities as a Small category Zoo, since dt. 01.04.1986 and from dt. 01.04.1995 it has been recognised by the Central Zoo Authority of India.

At present 268 animals are in display consisting of fifteen different species. Four species of schedule I category (Python, Elephant, Mugger and Peafowl), one species of schedule II category (Sloth Bear), one species that is critically endangered (*Elongated tortoise*) are present, enriching the species diversity of the zoo. Recent addition to the zoo includes a souvenir shop and a snake house housing species found commonly in the Kapilash sanctuary area such as King Cobra.

Elephant Rescue Centre, a part of the zoo is presently housing three rescued elephant calves and three juvenile adult elephants received from different places of the state and is now functioning in an off-display area of the Zoo. The rescue centre can house four adult and three baby elephants. Rescued elephants are treated in specially designed kraals under the supervision of staff and Zoo vet.

The annual number of visitors has gone over one lakh in recent years. With addition of Jungle safari and boating facility, an increase in the number of visitors has been observed, to explore the unique flora and fauna of the place.

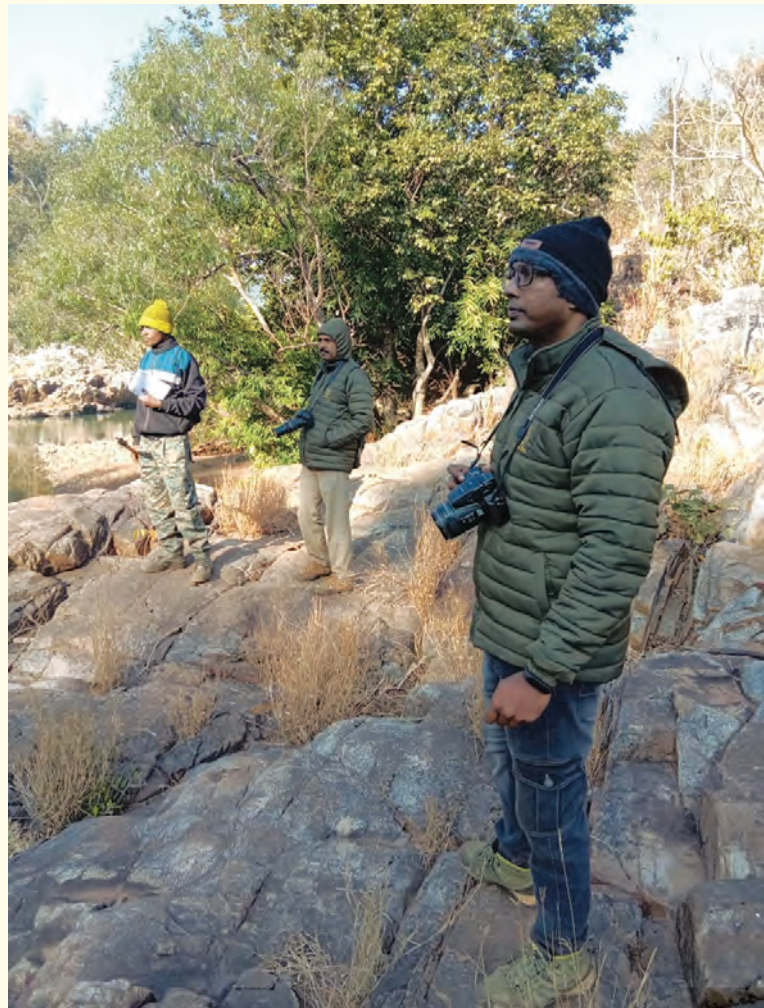


WILDLIFE CENSUS / POPULATION ESTIMATION

Wildlife documentation and research is a recognised mandate of the State Wildlife Organisation. The conservation and management projects of wildlife species such as Tiger, Elephant, Blackbuck, Dolphin, Birds, Crocodile, Sea turtle along with captive breeding programme in Zoos, eco-development need and approaches are some of the few areas generating lot of data which are used in planning and execution of wildlife conservation programmes in the State.

Wildlife Organisation conducts census by direct counting or by indirect counting methods of Herbivores, Carnivores, Birds and fresh water animals throughout the state. The goal of wildlife conservation is to ensure the survival of these species, and to educate people on living sustainably with other species. As a practice, regular census of Tiger, Elephant and Blackbuck in the terrestrial (forest) habitat; the Estuarine Crocodile, the Waterfowl, Dolphins in saline water and the nesting turtles in the sea coast habitat; the Gharial, Muggler and mid-winter waterfowl/water birds in the freshwater water bodies all over Odishais conducted by all Divisional Forest Officers under supervision of the State Wildlife Organisation.

The census report of last five years i.e. from 2018-19 to 2022-23.



Bird Census in Similipal North Wildlife Division





WILDLIFE CENSUS RESULTS
(2018-19, 2019-20, 2020-21, 2021-22 and 2022-23)

SLNo.	Species	Census area / site	2018-19	2019-20	2020-21	2021-22	2022-23
1	Saltwater crocodile (Baula)	Bhitarakanika	1763	1809	1830	1819	1831
2	Mugger crocodile (Magar/Gomunha)	(i) Satkosia / Mahanadi river	104	113	95	72	83
		(ii) River systems of Similipal Tiger Reserve	85	73	80	77	80
		(iii) Ghodahada Reservoir, Digapahandi, Ganjam	58	65	72	76	81
3	Gharial (Ghadial)	Mahanadi river system	8	8	11	7	7
4	Olive Ridley sea turtle	Gahirmatha	4.51 lakhs	4.07 lakhs	3.50 lakhs	5.01 lakhs	5.12 lakhs
		Rushikulya river mouth	No Mass nesting	3.23 lakhs	No Mass nesting	5.50 lakhs	6.37 lakhs
		Total	4.51 lakhs	7.30 lakhs	3.50 lakhs	10.51 lakhs	11.49 lakhs
5	Irrawaddy Dolphins	Chilika lagoon	113	146	162	151	154
		Chilika lagoon	0	17	26	16	19
	Bottle nose	Entire coastal Odisha including Chilika lagoon	259	233	544	726	733
	Dolphins (7 species)	Irrawaddy-130	Irrawaddy-208	Irrawaddy-209	Irrawaddy-208	Irrawaddy-169	
Bottle Nose-16		Bottle Nose-23	Bottle Nose-54	Bottle Nose-155	Bottle Nose-72		
Humpback-107		Humpback-2	Humpback-	Humpback-332	Humpback-489		
Humapback-6			281	Striped-13	Spinner-3		
					Finless porpoise-3	Spinner-15	
6	Blackbuck	Balukhand-Konark Wildlife Sanctuary	Census not done	Census not done	Census not done	Census not done	Census not done
		Blackbuck habitat area of Ganjam District	Census not done	6875	7358	Census not done	7743
7	Elephant	Entire State	As per last estimation done by Govt of India in 2017, the total number is 1976.				
8	Tiger	Entire State	28 (26-30)	-	-	-	20 (17-24)

9	Leopard	Entire State	760 (727-793)	-	-	-	Ongoing
10	Migratory Birds	(i) Chilika lagoon	10.21 lakhs 105 species	10.71 lakhs 109 species	111 Species 1.36 lakhs	10.74 lakhs 107 species	10.93 lakhs 105 species
		(ii) Bhitarkanika Mangrove Wetland	01.09 lakhs 74 species	1.18 lakhs 105 species	121 species 1.03 lakhs	1.38 lakhs 144 species	1.40 lakhs 140 species
		(iii) Hirakud reservoir	01.46 lakhs 92 species	0.98 lakhs 93 species	41 species	2.08 lakhs 104 species	3.16 lakhs 108 species

* CAMERA TRAP estimation conducted by NTCA & WII, Govt of India, 2018 and 2022



Olive Ridley Hatchling going to Sea

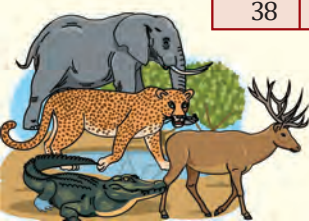


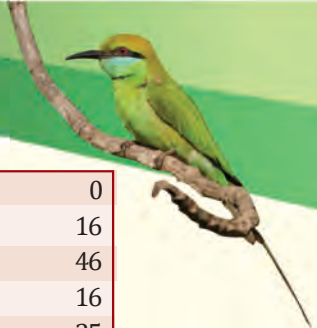
A. ELEPHANT CENSUS DETAILS

The Census of elephants in Odisha was conducted in the years 1979, 1999 and 2002, 2007, 2010, 2012 2015, and 2017. The technique for census of Elephant has been developed and refined with every successive census operation. The traditional method involves fixed point counts from salt-licks, water bodies, watch towers, etc. combined with perambulations during the day time.

Elephant Population trend in Odisha from 1979 to 2017

Sl. No.	Name of Divisions	May-79	May-99	May-02	May-07	Apr-10	Jun-12	May-15	May-17
1	Angul	173	162	24	76	40	56	40	45
2	Athamallik	0	29	37	23	15	28	56	59
3	Athgarh	75	154	156	139	133	131	114	115
4	Balasore WL	0	41	56	67	81	93	89	97
5	Balliguda	54	17	32	35	41	36	46	30
6	Bamra WL	179	183	201	194	152	176	102	94
7	Bargarh	0	0	0	0	0	15	0	0
8	Baripada	0	0	0	48	48	52	68	70
9	Berhampur	0	0	0	9	37	35	20	11
10	Bhadrak WL	0	0	0	2	0	0	0	0
11	Bolangir	0	0	0	0	10	22	28	32
12	Bonai	25	53	82	69	45	42	65	59
13	Boudh	0	15	0	16	8	4	08	15
14	Chandaka WL	0	83	62	67	23	24	08	1
15	Chilika WL	0	0	0	0	0	0	0	0
16	City Forest	0	0	0	0	0	0	0	0
17	Cuttack	0	0	0	8	14	22	35	37
18	Deogarh	7	21	9	27	58	49	42	27
19	Dhenkanal	92	94	81	132	157	162	164	169
20	Ghumsur (N)	5	24	9	17	13	17	21	17
21	Ghumsur (S)	8	5	6	0	0	32	42	25
22	Hirakud WL	0	0	0	0	0	16	20	19
23	Jeypore	0	0	0	0	0	0	0	0
24	Kalahandi (N)	0	0	0	26	34	34	19	17
25	Kalahandi (S)	60	24	61	27	30	0	7	2
26	Karanjia	0	28	44	40	32	23	56	43
27	Keonjhar	90	75	112	33	41	73	47	40
28	Keonjhar WL	0	0	0	27	35	40	51	49
29	Khariar	0	0	0	0	0	0	0	0
30	Khurdha	57	0	0	8	6	14	31	33
31	Koraput	0	0	0	0	14	8	0	0
32	Mahanadi WL	0	0	25	1	7	5	88	93
33	Malkangiri	0	0	0	0	0	0	0	0
34	Mangrove WL	0	0	0	0	0	0	0	0
35	Nabarangpur	0	0	0	0	0	0	0	0
36	Nayagarh	51	0	0	6	12	5	17	14
37	Parlakhemundi	217	86	42	44	21	19	21	27
38	Phulbani	121	3	6	14	1	6	8	23





39	Puri WL	0	0	0	0	0	0	0	0
40	Rairakhol	51	170	165	11	16	6	9	16
41	Rairangapur	0	0	0	48	48	47	48	46
42	Rayagada	102	10	0	24	12	4	9	16
43	Rourkela	0	0	0	0	11	11	39	35
44	Jharsuguda	0	0	0	1	4	0	1	0
45	Sambalpur	7	54	64	91	77	16	5	53
46	Satkosia WL	0	0	155	194	224	229	146	147
47	STR Core	670	496	412	298	331	334	337	330
48	Subarnapur	0	0	0	23	30	31	37	44
49	Sunabeda WL	0	0	0	0	0	0	0	0
50	Sundargarh	0	0	0	17	25	13	10	26
GRAND TOTAL		2044	1827	1841	1862	1886	1930	1954	1976

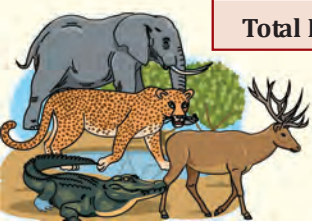


Elephant Herd and Spotted Deer at Debasthali, Similipal Tiger Reserve



ODISHA : DIVISION WISE ELEPHANT CENSUS RESULT-2017

Name of the Division	Male	Female	Unknown Sex	Young	Total
Angul	13	22	0	10	45
Athmalik	10	30	2	17	59
Dhenkanal	30	94	15	30	169
Athagarh	17	57	0	41	115
Cuttack	7	17	0	13	37
Satkosia WL	22	88	0	37	147
Mahanadi WL	14	50	0	29	93
Total Angul Circle	113	358	17	177	665
Balasore WL	19	51	0	27	97
Rairangpur	12	25	0	9	46
Karanjia	8	21	0	14	43
Baripada	17	34	0	19	70
Similipal TR Core	38	203	2	87	330
Keonjhar WL	11	26	0	12	49
Total Baripada Circle	105	360	2	168	635
Berhampur	2	6	2	1	11
Ghumsur North	4	5	0	8	17
Ghumsur South	5	13	2	5	25
Parlakhemundi	4	18	5	0	27
Balliguda	4	17	0	9	30
Boudh	3	7	0	5	15
Phulbani	6	13	0	4	23
Total Berhampur Circle	28	79	9	32	148
Kalahandi North	4	9	0	4	17
Kalahandi South	1	0	1	0	2
Subarnapur	4	30	0	10	44
Bolangir	9	20	0	3	32
Khariar	0	0	0	0	0
Total Bhawanipatna Circle	18	59	1	17	95
Chandaka WL	1	0	0	0	1
Chilika WL	0	0	0	0	0
City Forest	0	0	0	0	0
Khurda	5	10	1	17	33
Nayagarh	2	6	0	6	14
Total Bhubaneswar Circle	8	16	1	23	48





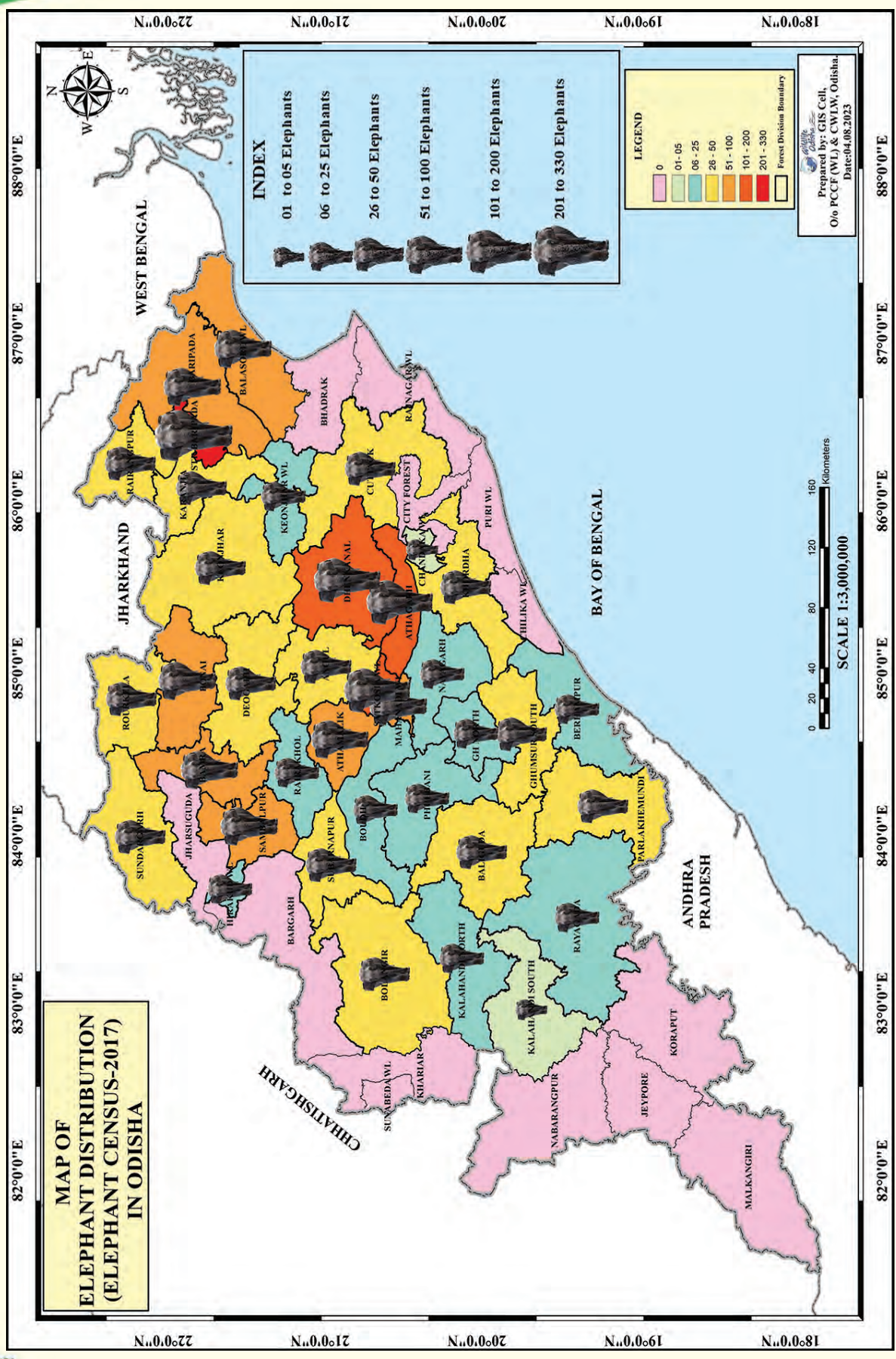
Name of the Division	Male	Female	Unknown Sex	Young	Total
Rayagada	3	8	1	4	16
Koraput	0	0	0	0	0
Total Koraput Circle	3	8	1	4	16
Bonai	14	38	0	7	59
Deogarh	5	14	1	7	27
Keonjhar	9	24	0	7	40
Rourkela	2	21	2	10	35
Sundargarh	9	12	0	5	26
Total Rourkela Circle	39	109	3	36	187
Sambalpur	9	31	4	9	53
Jharsuguda	0	0	0	0	0
Rairakhol	5	8	0	3	16
Bamra WL	12	52	0	30	94
Hirakud WL	4	12	0	3	19
Bargarh	0	0	0	0	0
Total Sambalpur Circle	30	103	4	45	182
ODISHA GRAND TOTAL	344	1092	38	502	1976

It has now been decided to carry out the estimation of elephant by the state every alternate year and the first such exercise is planned from April, 2024 for which the detailed guideline / SOP is being worked out.



Herd of elephants in forest area





Map 9: Map of Elephant distribution (elephant census-2017) in Odisha.



B. TIGER/ LEOPARD CENSUS:

M-STriPES for tiger reserves: M-STriPES (Monitoring System for Tigers: Intensive Protection and Ecological Status) was launched by the National Tiger Conservation Authority (NTCA) and Wildlife Institute of India (WII) in 2010. It has been rolled out across Protected Areas (PAs). M-STriPES is a mobile application designed to assist in wildlife protection and monitoring, and the management of Protected Areas. It utilizes the GPS technology in mapping patrol routes and maintaining a spatial database of patrol tracks. Patrol maps, along with observations recorded by the forest guards, can help PA management analyze trends and patterns to improve future protection efforts. It also provides the management important data to prioritize the areas for patrolling. It also helps them understand the biotic pressures on the habitat. M-STriPES not only strengthen wildlife crime investigation but also inculcate a sense of achievement and shared responsibility for wildlife conservation among all frontline staff. It has been regularly fine-tuned based on user feedback over the last decade.

India's national tiger assessment is the largest biodiversity survey being carried out anywhere in the world. The fourth cycle of the assessment was undertaken in 2018 and 2019 using the best available science, technology and analytical tools. In this cycle, recording of primary field data digitally through mobile phone application like M-STriPES, that uses GPS to geotag photo-evidences, and survey information made this exercise more accurate, with smaller margins of human error. Further, it involved the development of innovative technology like automated segregation of camera trap photographs to species using artificial intelligence and neural network models (software CaTRAT - Camera Trap data Repository and Analysis Tool). Program Extract Compare that finger prints tigers from their stripe patterns was used to count the number of individual tigers (>1 year old). The unique feature of this cycle of assessment, in keeping up with "Digital India", is the development and use of innovative technological tools in collection and processing of data to reduce human errors as per Summary Report (2019) of National Tiger Conservation Authority, Government of India, New Delhi & Wildlife Institute of India, Dehradun.



Carnivore Sign Survey- Phase IV monitoring





All India Tiger Estimation

All India Tiger Estimation (AITE) is conducted in every 4 years by National Tiger Conservation Authority (NTCA) in collaboration with the State Forest Departments and Conservation NGOs coordinated by the Wildlife Institute of India (WII) since 2006.

Summary of AITE-2006 to 2022 in Odisha

- Out of 51 Divisions, Tiger Estimation conducted in 47 Divisions in the State of Odisha.
- Estimation not conducted in 4 Divisions i.e. City Forest Division, Bhadrak Wildlife, Mangrove Forest Division (Wildlife), Rajnagar and Chilika Wildlife Division.

DATA SHOWING ALL INDIA TIGER ESTIMATION BY CAMERA TRAP METHODS BY NTCA*

SLNo.	Name of the Tiger Reserve	Year 2006	Year 2010	Year 2014	Year 2018	Year 2022
1	Similipal Tiger Reserve	20(17-23)	23(12-34)	Whole State	Whole State	Whole State
2	Satkosia Tiger Reserve	6	8(7-9)			
3	Sunabeda Tiger Reserve	9	Census not done			
4	Sporadic Occurrence	6				
ODISHA TOTAL		45 (37-53)	32 (20-44)	28(24-32)*	28 (26-30)	20 (17-24)

(Source: All India Tiger Estimation Reports from 2008 to 2022, NTCA & WII, Govt of India)

* This is only **CAMERA TRAP** estimation conducted by NTCA & WII, which is different from earlier process of sampling through pugmark survey. Hence, they are not comparable.

Leopard Estimation [As per AITE 2018] - 760 Nos.

It has now been decided to carry out the estimation of tiger population by the State every year. The said exercise which has already commenced this year from 15th September, 2023 and to be over by 31st January 2024, will provide the minimum number of tigers in the states besides the tiger occupancy areas. The said number will be arrived based on the camera trap unique stripes photographs of individuals and scat DNA analysis.

IN-SITU AND EX-SITU MEASURES FOR PROTECTION AND CONSERVATION OF WILDLIFE

The Asian elephant (*Elephas maximus*) is one of the most conflict-prone wildlife species in Odisha. Due to fragmentation of wildlife habitats for development project, increasing human population and biotic pressure thereof, the wild animals enter into human landscape for which human animal conflict arises.

For conservation of this flagship species of elephant, Govt. of Odisha has declared following three elephant reserves (ERs) and the proposal for expansion of Mahanadi ER and Sambalpur ER is under examination for appropriate action.

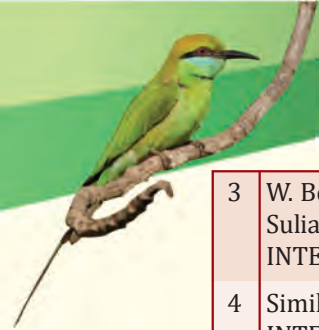
1. Mayurbhanj Elephant Reserve (7043.74 sq. km):
Notification No.8F (W) 42/2001/15806 Dated 29.09.2001
2. Mahanadi Elephant Reserve (1038.30 sq. km):
Notification No.8F (W) 17/2002/10162 Dated 19.06.2002
3. Sambalpur Elephant Reserve (426.91 sq. km):
Notification No.8F (WL) 10/2002/5840 Dated 27.03.2002

IDENTIFIED ELEPHANT CORRIDORS IN ODISHA

Elephant corridors are relatively narrow strips of land connecting two or more viable habitats or providing passage for genetic connectivity between two or more viable elephant population, for ensuring their long term survival. In the scenario of fast-growing developmental projects, fragmented forests need linking through management of corridors. The state had identified fourteen corridors in 2011, which were presumably used by elephants to move between different habitats. These corridors are given below:

Sl. No.	Name of the Corridor	Extends over District	Name of the Division	Length of the corridor in km	Width of the corridor in km	Total area Sq.km.
1	Badampahar (Mayurbhanj)-Dhobadhobin (Jharkhand) INTERSTATE	Mayurbhanj	Karanjia, Rairangapur	16	0.5-1.5	24.3
2	Badampahar (Mayurbhanj)-Karida (Jharkhand) INTERSTATE	Mayurbhanj	Rairangapur	43	0.2-2.6	26.09

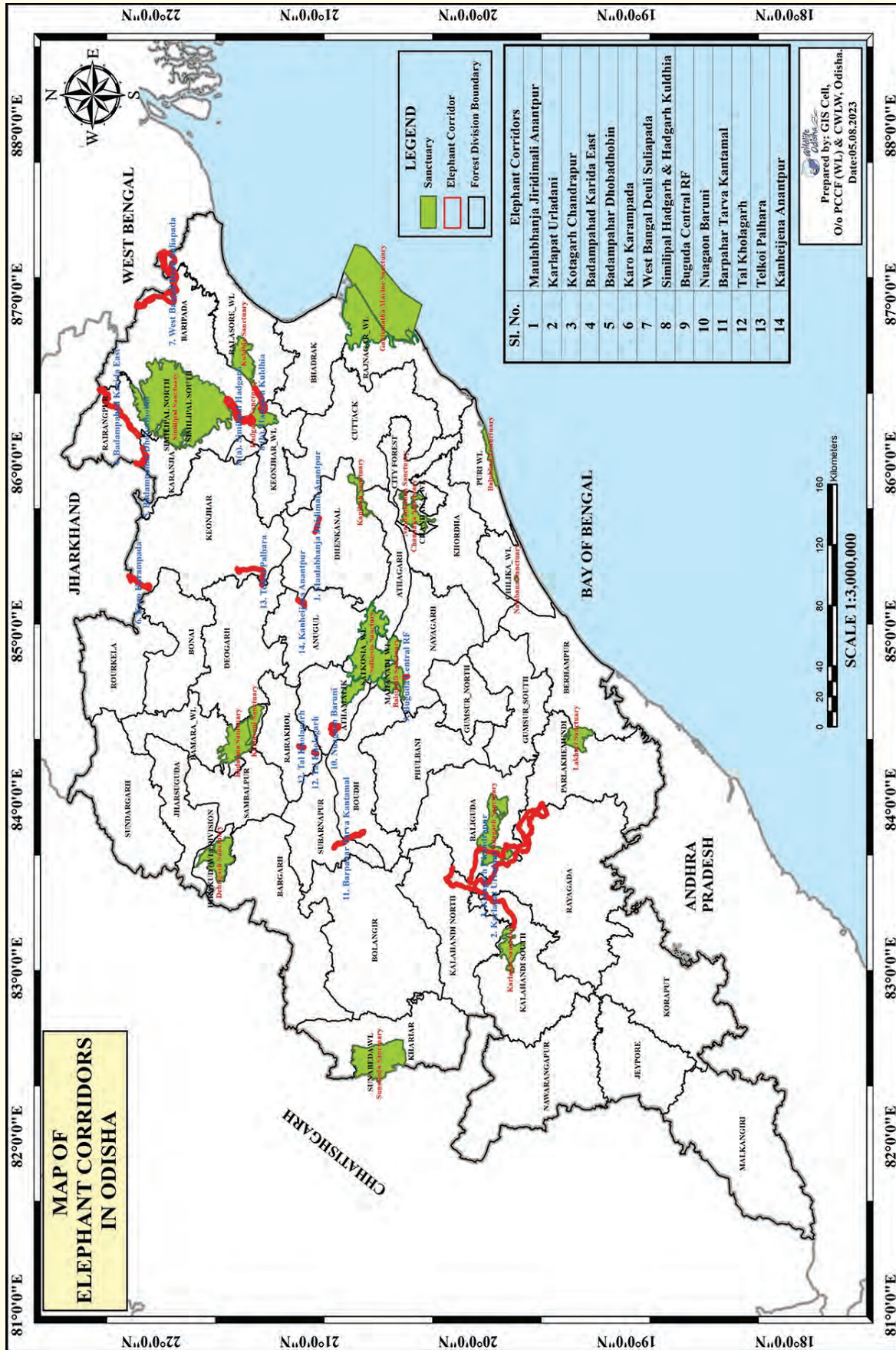




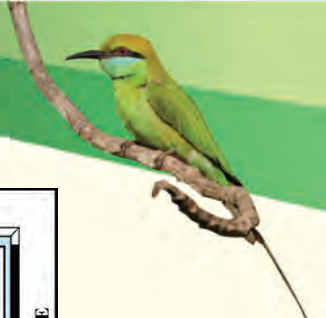
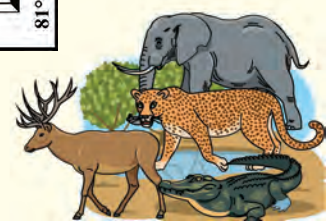
3	W. Bengal-Deuli-Suliapada (Passage) INTERSTATE	Mayurbhanj, Balasore; (West Bengal)	Baripada	72	0.1-0.7	39.5
4	Similipal-Hadagarh-Kuldiha INTER-DISTRICT	Mayurbhanj; Keonjhar; Balasore	Baripada, Balasore WL, Keonjhar WL	41.7	0.7-3.5	91.39
5	Telkoi-Pallahara INTER-DISTRICT	Keonjhar; Angul	Keonjhar, Deogarh	30.4	0.2-0.6	13.24
6	Karo (Keonjhar)-Karampada (Saranda, Jharkhand) INTERSTATE	Keonjhar; (Jharkhand)	Keonjhar	15	0.3-2.3	17.3
7	Maulabhanja- Jiridamali-Anantapur INTRA-DISTRICT	Dhenkanal	Dhenkanal	6.5	0.25-0.28	1.55
8	Kahnejena-Anantapur INTER-DISTRICT	Angul; Dhenkanal	Angul Dhenkanal	6.6	0.4-1.1	5.22
9	Buguda-Central RF INTRA-DISTRICT	Nayagarh	Nayagarh	2.6	0.8-0.6	0.76
10	Nuagaon-Baruni INTRA-DISTRICT	Angul	Athmallik	4.5	0.4-4.6	20.7
11	Tal-Kholgarh INTRA-DISTRICT	Sambalpur	Rairakhhol	6.3	0.5-0.08	4.56
12	Barpahad-Tarava-Kantamal INTER-DISTRICT	Subarnapur, Boudh	Subarnapur, Boudh	24.2	0.38-1.5	21.7
13	Kotagarh-Chandrapur INTER-DISTRICT	Kandhamal; Rayagada	Balliguda, Rayagada	77	2.0-22.4	575.4
14	Karlapat-Urladani INTER-DISTRICT	Kalahandi; Rayagada	Kalahandi(S), Kalahandi(N) Rayagada	75	0.2-0.5	28.9
Total				421		870.6

However, many of these corridors have become nonfunctional and hence further exercise for verification is required to ascertain their viability. The Govt. of India has already been requested to deliberate with all the elephant range states in the country to decide on the criteria for their identification and provisioning for legal protection. Pending this, the State is already undertaking many measures for protection of their habitats and movement paths.





Map 10: Elephant Corridors in Odisha





Declaration of Similipal-Hadgarh-Kuldiha Traditional Elephant Corridor as Conservation Reserve

In pursuance of Order of Hon'ble NGT, Principal Bench, New Delhi in O.A No. 02/2019/EZ-Rural Organization for Social Empowerment (ROSE)-Vrs-State of Odisha and Hon'ble Supreme Court of India in Civil Appeal Dy. No.19961/2020 dated 02.03.2022, proposal for Notification of "Similipal-Hadgarh-Kuldiha Traditional Elephant Corridor as Conservation Reserve" have been submitted to Government by PCCF, (Wildlife) & CWLW, Odisha, Bhubaneswar vide letter No.1055 dated 03.02.2022.

Accordingly, Govt. have declared as "Similipal-Hadgarh-Kuldiha Traditional Elephant Corridor as Conservation Reserve" an area of 2941.363 Ha vide Notification No. FE-WL-WLF-0011-2022/1166/FE &CC, Dt. 20.01.2023.



Movement of elephant in forest area, Keonjhar Wildlife Division

Declaration of Brutanga Conservation Reserve

Government has declared the area adjacent to southern boundary of the Baisipalli Wildlife Sanctuary covering Central Reserved Forest, Nasagarh RF and the area in between as Brutanga Conservation Reserve over an area of 26949.88 Ha.

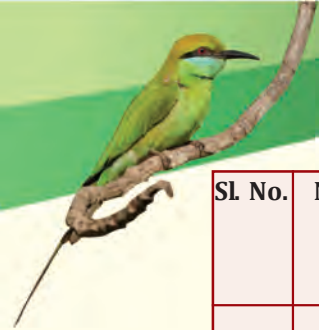


MEASURES TAKEN FOR CONSERVATION AND PROTECTION OF ELEPHANTS

Construction of Under Pass/Over Pass to prevent death of wild animals due to Train Accident/ National Highway / Irrigation etc.

Sl. No.	Name of the Division	LIP	Name of the Project	Location of EUP/ EOP as per approved SSWLCP	Latitude and Longitude	Whether Completed (YES/NO)
1	Angul	Railway	Angul-Gopalprasad- Puttagadia-Jarapada- Tentuloi New BG Railway Line.	Arisilasulia R.F., Durgapur (P) R.F	N-20° 89' 37.62" E-84° 89' 24.37"	No
				Inside Similipathar R.F	N-20° 94' 05.66" E-84° 87' 59.63"	No
				Inside Durgapur R.F	N-20° 93' 95.7" E-84° 95' 64.9"	No
				Inside Durgapur R.F	N-20° 93' 51.4" E-84° 95' 95.7"	No
				Inside Durgapur R.F	N-20° 93' 22.1" E-84° 96' 58.3"	No
				Inside Durgapur R.F	N-20° 93' 46.2" E-84° 96' 87.8"	No
		Railway	Jarpada- Budhapank with flyover at Talcher Road Railway Project	Towards Chainpal to Talcher Road		No
2	Athmallik	SH	Boinda-Athmallik- Kiakata Road from 15/ 0 to 39/0 under NABARD Assistance RIDF-XVII	Athmallik- Boinda SH-62 (EUP)	N-20° 45' 46.04" E-84° 33' 14.33"	No
				Athmallik- Boinda SH-62 (EUP)	N-20° 47' 32.64" E- 84° 35' 29.6"	No
		NH	Angul-Sambalpur section of NH-55 (Km.112.000 to Km.265.000) under NHDP-IV on EPC mode	NH-55 at Jamunali (EUP)	N-20° 55' 07.7" E-84° 46' 44.9"	No
				NH 55 at Kutasinga, Chainage 184+100 K.M (EUP)	N- 21° 2' 32.60" E- 84° 27' 30.3"	No
		SH	Major Junction at 112.360Km. of NH- 153(B) in Bankapal Mouza, Kiakata GP under Athmallik Block	Boudh- Rairakhol NH-153 (B) (EUP)	N-20° 54' 2.72" E-84° 18' 46.37"	No
		Irrigation	Manjore Irrigation Project	Manjore Left Canal (EOP)	N-20° 82' 55.81" E-84° 43' 58.07"	Yes
				Patrapada Canal Right (Manjore) (EOP)	N-20° 83' 78.04" E-84° 40' 22.37"	Yes
				Patrapada Canal Right (Manjore) (EOP)	N-20° 83' 70.77" E-84° 41' 46.10"	Yes
3	Cuttack	Railway	Diversion of 4.84 ha of forest land for construction of Kapilash Cement Manufacturing works a Unit of OCL India Ltd.	Jhatia	N 20° 37' 31.8" E 86° 01' 42.0"	Yes
				Bagau	N 20° 37' 30.4" E 86° 01' 55.3"	Yes
				Mania	N 20° 37' 35.1" E 86° 00' 24.3"	Yes



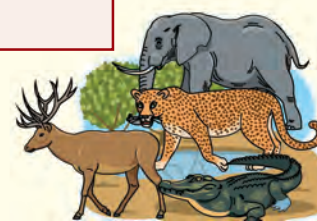


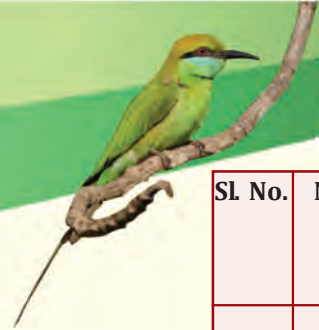
Sl. No.	Name of the Division	LIP	Name of the Project	Location of EUP/ EOP as per approved SSWLCP	Latitude and Longitude	Whether Completed (YES/NO)
		Railway	Construction of 3 rd & 4 th rail line from Salegaon - Budhapank (398.166 km - 483.147 km) by East Coast Railway, Bhubaneswar.	Salegaon-Charbatia	N 20° 34' 07.0" E 85° 55' 48.5"	Yes
				Near Managalpur (Gabaganda)	N 20° 34' 11.2" E 85° 54' 07.6"	Yes
				Padagaon-Balipur	N 20° 34' 09.5" E 85° 52' 05.9"	Yes
		SH	Diversion of 4.352 ha of forest land for s i d e n i n g / construction existing RD road from Bhagatpur to Kanpur.	Dhanabeni	N 20° 37' 01.0" E 85° 59' 24.7"	Yes
		SH	Diversion of 133.579 ha including re-diversion of 12.304 ha forest land for Tomka- Mangalpur Road(ODR) to four lane in Jajpur District.	Champajhar	N 21° 04' 27.73" E 85° 55' 21.32"	No
				Raighati	N 21° 04' 05" E 85° 54' 08"	No
Mahulkhala	N 21° 00' 20" E 85° 45' 33"			No		
4	Dhenkanal	NH	NH 42 now 55 Underpass	1. Sudhaddiha Kateni	N- 20° 44' 13.2" E- 85° 30' 14.5"	No
				2. Rasasinga	N- 20° 44' 07.6" E- 85° 29' 19.4"	No
				3. Passasinga	N- 20° 44' 30.3" E- 85° 28' 10.1"	No
				4. Podapada (Odapada)	N- 20° 44' 13.3" E- 85° 28' 55.4"	No
				5. Haladiabandha	N- 20° 46' 37.4" E- 85° 21' 07.7"	No
		Railway	Budhapanka Salagaon Railways Project Overpass	Kapilash Wildlife Sanctuary	N- 20° 35' 44.0" E- 85° 41' 09.7"	No
5	Karanja	NH	Singda-Brinjabahal Section of NH-49 (Old NH-6)	Location 318+550 near Ghosda RF	N-21° 49' 27.6" E-85° 50' 24.2"	Yes
			Singda-Brinjabahal Section of NH-49 (Old NH-6)	Near Kasia RF	N-21° 51' 36.1" E-85° 56' 12.0"	No
			Bahadagoda to Singda Section NH-49 (Old NH-6)	Near Dari village	N-21° 52' 14.3" E-85° 57' 53.8"	No
			Bahadagoda to Singda Section NH-49 (Old NH-6)	Near village chatanisahi	N-21° 58' 07.6" E-86° 06' 47.8"	No
			Bahadagoda to Singda Section NH-49 (Old NH-6)	Dudhiani (Near Kuita village)	N-21° 53' 19.0" E-86° 01' 28.0"	No





Sl. No.	Name of the Division	LIP	Name of the Project	Location of EUP/ EOP as per approved SSWLCP	Latitude and Longitude	Whether Completed (YES/NO)
			Bahadagoda to Singda Section NH-49 (Old NH-6)	Dudhiani (Near Tuntuna village)	N-21° 52' 57.2" E-85° 59' 32.7"	No
6	Keonjhar (T)	NH	NH-20 (Panikoili-Remuli) Section	In between Balijodi-Ghatgaon	N-21° 33' 59.0" E-85° 45' 17.0"	Yes
			NH-20 (Panikoili-Remuli) Section	In between Pipilia-Bankapatuli	N-21° 23' 9.0" E- 85° 54' 26.1"	Yes
			NH-520 (Remuli - Rajamunda) Section	Near Village Gamalei under Barbil Range	N-22° 1' 14.439" E-85° 20' 19.65"	Yes
			NH-520 (Remuli - Rajamunda) Section	Near Village Ranasalghati under Barbil Range	N-22° 2' 56.56" E-85°24' 35.828"	Yes
			NH-520 (Remuli - Rajamunda) Section	Near Village Rugudi under Barbil Range	N-22° 0' 23.942" E-85° 20' 0.241"	Yes
			NH-49 (Singhra-Binjabahal) Section	At Belda RF under Keonjhar Range	N- 21° 41' 25.9" E- 85° 40' 47.1"	Yes
			NH-49 (Singhra-Binjabahal) Section	At Telkoi- Pallahara elephant corridor under Telkoi Range	N-21° 26' 22.1" E-85° 21' 10.1"	No
		Railway	Jakhapura- Bansapani Railway doubling line	In between Namira-Jajanga (414/8 Km.)	N-21° 54' 49.7" E-85° 26' 05.43"	No
7	Rairangpur	NH	Diversion of 67.309 hect. (Originally 85.104 hect of forest land proposed) of forest land for rehabilitation and upgradation (from existing 2 lane to 4 lane) from Baharagora (Jharkhand stretch) to Singara Section (199.200 km. to 310.806 km.) (within total stretch of 111.606 km) of NH-6 in the District of Mayurbhanj in the State of Odisha.	1. Bidubhandar RF (Ghat Tala) Part Buffer Zone Similipal Tiger Reserve Bisoi Range (EUP)	N- 22° 09' 35.0" E- 86° 31' 14.7"	No
				2. Bidubhandar RF (Badaghati) Part Buffer Zone Similipal Tiger Reserve Bisoi Range (EUP)	N- 22° 10' 09" E- 86° 29' 53.6"	No
				3. Budhimaragolai Forests (within STR) Bisoi Range (EUP)	N- 22° 10' 24.1" E- 86° 29' 19.7"	No
				4. Dudhkundi village and one side and Deokata village on the other (outside STR) Bisoi Range (EUP)	N- 22° 10' 46.8" E- 86°279' 31.3"	No
				5. Near Kharambeda village, Bisoi Range frequent elephant movement (outside of Tiger Reserve) (EUP)	N-22° 10' 145.8" E- 86° 26'09.5"	No



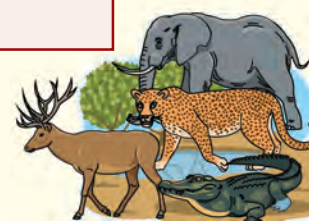



Sl. No.	Name of the Division	LIP	Name of the Project	Location of EUP/ EOP as per approved SSWLCP	Latitude and Longitude	Whether Completed (YES/NO)
				6. Out side Tiger Reserve of Bisoi Range (EUP)	N- 22° 03' 20.0" E- 86° 11' 40.5"	No
				7. Out side Tiger Reserve of Bisoi Range (EUP)	N- 22° 01' 20.0" E- 86° 10' 30.2"	No
8	Rourkela	NH	Upgradation of existing Road from Biramitrapur to Barkote Section NH-23 (Now NH-143) Under NHDP Phase-IV by NHA	Barghat	N-21° 49' 27.6" E-85° 50' 24.2"	Yes
				Kuchita	N-21° 51' 36.1" E-85° 56' 12.0"	Yes
				Kumkela	N-21° 52' 14.3" E-85° 57' 53.8"	Yes
9	Sundargarh	SH	S a m b a l p u r - Sundargarh-Rourkela Road (SH-10) from existing 2-laning to 4-laning (4/900 km to 167/400 km) by the Executive Engineer, Sundargarh (R&B) Division, Sudargarh, Odisha	SH-10 CH No.97.700 RHSJarangloi	N - 2 2 . 161992127075 E - 8 4 . 159236568957	Yes
10	Athagarh	NH	N.H.-55	Near Baula R.F.	N- 20° 31' 53.0" E- 85° 48' 54.9"	No
				Near Baula R.F. approved by the PCCF(WL) & CWLW, O d i s h a , Bhubaneswar vide letter No.9400 dtd. 17.10.2022	N- 20° 31' 53.0" E- 85° 48' 54.9"	No
11	Subarnapur	Railway	Khurda-Bolangir new rail link project	1. Overpass will be of 80 m. span to facilitate the movement of Elephants/ animals.	N-20° 50' 53.29" E-83° 51' 07.97"	Work under progress
				2. Elephant underpass of 2X30.5 m span height of 10 mtr. (Chainage - 244.560)	N-20° 50' 44.06" E-83° 50' 43.53"	
				3. Overpass will be of 80 m. span to facilitate the movement of Elephants/ animals.	N-20° 50' 44.91" E-83° 49' 37.38"	





Sl. No.	Name of the Division	LIP	Name of the Project	Location of EUP/ EOP as per approved SSWLCP	Latitude and Longitude	Whether Completed (YES/NO)
				4. Construction of single box culvert in Arjunpur RF		
12	Redhakhhol	NH	Rehabilitation and up-gradation of existing 2 lane to 4 lane of NH-42 Angul to Sambalpur	EUP-Purunapani PRF Near Charbati Chawk at-Redhakhhol Range	N- 21° 03' 51.4 E- 84° 22' 39.4	Under Progress
				Tal-Kholgarh Elephant Corridor Flyover of 1 KM length	N- 21° 03' 51.0 E- 84° 19' 02.2	Not started
				Near Central Nursery at Charmal Range	N-21° 06' 17.1 E-84°13' 39.67	Under progress
				In between Suani RF & Berhampura RF (Near Nuapada Chawk) at Charmal Range	N-21° 06' 15.0 E-84° 14' 31.8	Under progress
				Landakote RF under Barchhat at Badmal Range	N- 21° 08' 34.01 E-84°10' 09.01	Under progress
		Railway	Doubling Railway line from Talcher to Sambalpur	Railway Pillar No.48/3 to 48/4 Over pass / Under pass length 100 mtrs	Badmal Range (Jujomura to Charmal)	Not started
		50/1 to 50/2 Over pass length 100 mtrs		Badmal Range (Jujomura to Charmal)	Not started	
		57/3 to 57/4 Under pass length 100 mtrs		Charmal Range (Charmal to Redhakhhol)	Not started	
		64/5 to 64/6 Under Pass-length 100 mtrs		Charmal Range (Charmal to Redhakhhol)	Not started	
13	Bolangir	Railway	Sambalpur- Titilagarh Doubling Line	1. In between Kaliapali to Loising Station Chainage 653.800km to 654.300 Km)	NA	No
				2. In Matkhhai RF in between chainage (687.300 km to 688.300 Km)	N-20° 37' 39.44" E-83°28' 06.426"	No
				3. In Banji RF in between Chainage (693.400km to 693.60 Km)	N-20°35' 54.620" E-83°25' 42.547"	No





Sl. No.	Name of the Division	LIP	Name of the Project	Location of EUP/ EOP as per approved SSWLCP	Latitude and Longitude	Whether Completed (YES/NO)
14	Sambalpur	Railway	Sambalpur-Talcher Railway Doubling Line	Near Chandnimal	N-21 13 15.1 E-84 08 18.7	No
				Near Sitlenpali	N-21 23 55.2 E-84 03 26.1	No
				Near Jamtal Forest Road	N-21 20 42.5 E-84 06 05.7	No
				Near Gadgadbahal	N-21 17 51.6 E-84 07 33.4	No
				Near Budhiakata	N-21 18 31.4 E-84 07 14.7	No
		NH	Rehabilitation and up-gradation to 4 laning of Angul-Sambalpur Section (Km 112.000 to Km 265.000) in the State of Odisha.	Jhankarpali	N-21 23 43.1 E-84 03 53.1	No
				Bhabanipali	N-21 22 52.7 E-84 03 53.1	No
				Hatibari	N-21 20 15.0 E-84 05 12.6	No
				Nua Mahulpali	N-21 18 02.7 E-84 07 8.2	No
				Paltandera near Chandnimal (Jujumura)	N-21 13 30.9 E-84 08 48.7	No
NH	Rehabilitation and up-gradation of Telebani-Sambalpur Section of NH-6 from (Km 493.300 to Km 521.825 and Km 545.176 to Km 567.100) in the State of Odisha.	Kesiderali to Balibandha	N-84 06 25 E-21 27 00	No		
15	Deogarh	NH	Telebani-Sambalpur Section of NH-6	Kansar	N 21 25.516 E 84 30.77	Yes

Habitat Enrichment/ Improvement/Protection

Generally, habitat can be described as all of the food, water, and cover resources that wildlife require to survive. These three resources must be available in sufficient amounts to maintain a healthy wildlife population. Habitat requirements are different for each species of wildlife, although some species have very similar habitat requirements. So, habitat development/improvement is the most important activity in Wild Life Management. Various developmental processes, biotic interferences and incidences of fire in forest areas are the main cause of degradation of wildlife habitat. In order to mitigate the degradation following activities are being undertaken for improvement and protection of Wildlife habitats under CAMPA and other budgetary heads.



Habitat Improvement and Habitat Protection during 2022-23 and proposed for 2023-24

Sl No.	Activities	Achievement during 2022-23 (Total In No/Ha./Km.)	Proposal during 2023-24 (Total In No/Ha./Km.)
1	Protection Squad / Anti-depredation Squad	489 nos.	493 nos.
2	Elephant Squad	134 nos.	140 nos.
3	Rapid Response Squad	73 nos.	0
4	Engagement of Elephant Tracker	0	0
5	Fire-fighting Squad	149 nos.	117 nos.
6	Creation of water body	22 nos.	122 nos.
7	Renovation of Water body	60 nos.	270 nos.
8	Water harvesting structure	0	5 nos.
9	Meadow development	1090.46Ha	333 Ha
10	Weed eradication	1307 Ha	500 Ha
11	Digging of Elephant proof Trench	31.01 Km	98Km
12	Bamboo seed ball plantation	0.	0
13	Fodder Plantation	0	0
14	Fruit bearing & Fodder Species	500 nos.	6275nos.
15	Signages	4 nos.	1521nos.
16	Creation and maintenance salt lick	111 nos.	147 nos.
17	Creation and maintenance fire line	8144 Km	7627Km
18	Maintenance of forest road	42.42 Km	122 Km
19	Fire blower	5 nos.	7 nos.
20	Construction of Watch Tower	11 nos.	15 nos.
21	Construction of Anti-poaching Camp shed	01 nos.	5 nos.
22	Solar Street light	990 nos.	40 nos.
23	Relocation of villages	2 nos.	0
24	Availability of Trap Camera & Drone	3116/90 nos.	0
25	Solar Fencing	16.97 Km	25 Km
26	Preventive Vaccination	14,14,073 doses	0
27	Samples examine at Center for Wildlife Health	3015nos.	0
28	Disinfection of Water bodies	1029 nos.	0
29	Training of Veterinarians	200 nos.	200 nos.
30	Training of Forest Staff on healthcare	-	200 nos.





RESCUE AND REHABILITATION

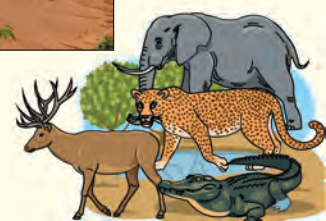
A. Establishment of Rescue / Rehabilitations for elephants

As per the last census, about 1976 Asian elephants were found in the State of Odisha. In order to reduce the man-animal conflict as well as considering the negative impact on habitats, it is considered to establish the Rescue / Rehabilitation Centre for the problematic, injured and sick elephants. Therefore, this type of Rescue/ Rehabilitation Centre has been established in our state in order to take care of health needs of capture elephants.

B. Elephant Rescue and Rehabilitation centre at Kumarkhunti of Chandaka Wildlife Division.

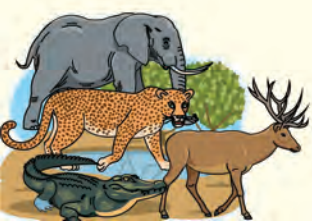
- One master plan has been prepared for Elephant & Rehabilitation Centre for accommodation of 05 nos. of elephant at Kumarkhunti in Chandaka Wildlife Range (Area-105.00 Ha.).
- As immediate solution construction of one enclosure along with other ancillary facilities such as Quarantine, isolation, veterinary care unit & housing facility of Mahouts & Fodder farm etc. has been proposed by DFO, Chandaka with title “TRANSIT FACILITY FOR RESCUE OF ELEPHANTS AT KUMARKHUNTI” Area-54.42 Ha.
- The construction of the above Rescue Centre was carried out by Chandaka Wildlife Range & completed by 31.03.2021. The following works have been executed in the field departmentally under the supervision of Sova Consultants, Jagamara, Bhubaneswar.
 - a. Trench with laterite lining around Free Ranging Zone over 1454 Rmt.
 - b. Solar fencing around Free Ranging Zone over operational area 1563 Rmt.
 - c. Trench with laterite lining around Fodder Cultivation enclosure over 420 Rmt.
 - d. Solar fencing around Fodder Cultivation enclosure over 450 Rmt.
 - e. Fixing of M.S. sliding gate for Fodder Cultivation enclosure, Quarantine Zone, Transition Zone-03 nos.
 - f. Fixing of M.S gate at entrance with provision of lifting facility including cost of winch, pulley, guide rope, supporting arrangement for Kumarkhunti Free Ranging Zone.
 - g. Musth pen with shed & water pool for Free Ranging Zone.
 - h. Elephant shed (02 nos.) for Quarantine Zone.
 - i. Bore well & Solar water pump system for Free Ranging Zone.
 - j. Fixing of elephant stay post of size 5’ underground & 4’ above with concrete base 4 nos. (2 nos. for Quarantine Zone & 02 nos. for Free Ranging Zone).
 - k. Construction of shed over existing ‘Corral’ with iron pillar & profile sheet in Transition Zone.

- l. Providing & fixing solar street light fitting with laboratory equipment.
 - m. Accommodation for staff & provision of veterinary unit with laboratory equipment.
 - n. R.R. Stone wall fencing around Quarantine & Transition Zone over 692 Rmt.
 - o. Water passage in the laterite lining trench in the Free Ranging Zone-30 mtr.
 - p. Construction of Diaphragm wall inlet & outlet of water body inside Free Ranging Zone.
 - q. Development of road network-inspection path in & around Free Ranging Zone over 2962Rmt.
 - r. Procurement & commissioning of one D.G. set with cable wiring etc.
- During 2022-23 another one segments of Free Ranging Zone over an area of 10.0 Ha. has been constructed as per the master plan with an estimated cost of Rs.3.53 crores. The following works have been executed in the field departmentally.
 - a. Trench with Laterite Lining around enclosure over 945.00Rmt.
 - b. Solar fencing around enclosure over area 1741.10Rmt.
 - c. Fixing of M.S. Sliding gate for 03 nos. with RCC wall.
 - d. Musth pen with shed, water vat & water pool.
 - e. Bore well with submersible pump system with DG set.
 - f. Fixing of elephant stay post of size 5' underground & 4' above with concrete base.
 - g. R.R. Stone wall with MS Sliding gate around Crawl over 277.12 Rmt.
 - h. Concertina Coil fencing over RR Stone wall around Crawl over 277.12 Rmt.
 - i. Construction of Crawl with Shed.
 - j. Construction of water passage (45 rmt.).
 - k. Construction of water passage (30 rmt.).
 - l. Construction of water passage (15 rmt.)
 - m. Laying of water supply pipeline.





Elephant Rescue and Rehabilitation Centre at Kumarkhunti in Chandaka Wildlife Division



C. Elephant Rescue Centre at Kapilash Zoo under Dhenkanal Forest Division

The Elephant rescue centre, Kapilash Zoo is set-up demarking an area of about 4 hectares out of total 26.64 hectares of the zoo. It was started in the year 2007. It consists of total 7 no. of elephants in captivity. The group included three calves, three juvenile adult elephants and an adult male elephant.

The elephant rescue centre has two elephant crawls, to house wild elephants in need of treatment after being rescued from the wild and necessary observation. It also has a paddock area specifically designed for the calves to remain free in that area for their overall stress management and welfare. There are 5 small rooms to in house elephant calves, specially during the night hours and in the winter season for their management. There are 4 standing platform with attached sprinklers to keep the adult and juvenile elephants. One rogue elephant named Rakesh is being kept in a trench area of 1 hectare area with solar fencing. The Elephant rescue centre will serve the following purpose:

1. Receiving animals in distress, particularly calves deserted by the herds. And rogue elephants which have to be translocated after tranquilization.
2. Providing veterinary care and services.
3. The rescue centre will also seek to train motivated Mahouts.

The elephant rescue centre, Kapilash zoo has a total of 8 mahouts (6 from Odisha and 2 from Assam).



Elephant rescue centre, Kapilash Zoo





Mobile Veterinary Service (MVS)

WTI and Forest, Environment and Climate Change Department, Government of Odisha entered into a memorandum of understanding (MOU) for establishment of two Mobile Veterinary Service (MVS) Units in Similipal Biosphere Reserve and Keonjhar Forest Division of Odisha to attend to distressed wildlife of the area. The two MVS units were commissioned at Similipal Tiger reserve in the year 2014 and Keonjhar Forest Division in 2019. Due to change in land-use in the state, increased frequency of interactions between people and wildlife, particularly human-elephant conflict has been observed. The increased interface results in injury and other forms of disadvantage to wildlife in the region requiring treatment and care for survival and rehabilitation back to the wild.



Rescue and rehabilitation centers

Mobile Veterinary Service (MVS)

WILD RESCUE

Emergency Relief Network (ERN)

Training and capacity building

Since inception, both the units have attended to a total of 285 cases of disadvantaged wildlife, of which 173 (60%) animals were released back into the wild after providing treatment and care.



MVS Units in Field



MVS veterinarian treating an injured barking deer



Training the frontline forest personnel on use of gears for personal safety during challenging rescue situations by MVS, Odisha



MVS veterinarian treating two injured elephants in the forest assisted by forest personnel near Similipal tiger reserve



Rescue and Release of Wild Animals from 01.01.2022 to 31.07.2023

Sl No.	Name of the Division	Name of rescue animal	No of Rescued animal & Date
1	2	3	4
1	Malkangiri Forest Division	Crocodile	1 No. dtd.04.01.2022
2.	Gh. (North)Forest Division	Indian Pangolin	1 No. dtd.15.01.2022
3.	Dhenkanal Forest Division	Sub-adult Female Elephant	1 No. dtd.16.01.2022.
4.	Bolangir Forest Division	Pangolin	1 No. dtd.18.01.2022
5.	Koraput Forest Division	Injured Pangolin	1 No. dtd.30.01.2022
6.	Khariar Forest Division	Wild bear Cub	1 No. dtd.05.02.2022
7.	Koraput Forest Division	Peacock	1 No. dtd.30.03.2022
8.	Jeypore Forest Division	Injured Male sloth Bear	1 No. dtd.28.04.2022
9.	Rayagada Forest Division	Barking Deer calf	1 No. dtd.30.04.2022
10.	Redhakhol Forest Division	Four horned antelope	1 No. dtd.27.05.2022
11.	Redhakhol Forest Division	Leopard	1 No. dtd.08.06.2022
12.	Subarnpur Forest Division	Indian Pangolin	1 No. dtd.18.06.2022
13.	City Forest Division	Female Elephant	1 No. dtd.28.08.2022
14.	Khordha Forest Division	Male Monkey	1 No. dtd.26.02.2023
15.	Khordha Forest Division	Male Barking Deer	1 No. dtd.14.04.2023
16.	Kahriar Forest Division	Leopard	1 No. dtd.16.04.2023
17.	Khordha Forest Division	Hill Myna	3 Nos. dtd.29.04.2023

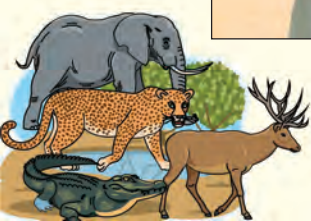


Capturing problematic monkey from Chandaka Wildlife Division



Rescue of bear cub, Jeypore Division

Rescue of Rock Python, Jeypore Division



Mobile Veterinary Unit

This year, 4 (four) number of mobile veterinary units have been sanctioned under the Regional Wildlife Management Plan of CAMPA, one each at Nandankanan, Rourkela, Sambalpur and Angul. The unit comprises of one VAS, one LI and two attendants besides vehicular mobility.

24X7 ELEPHANT MONITORING

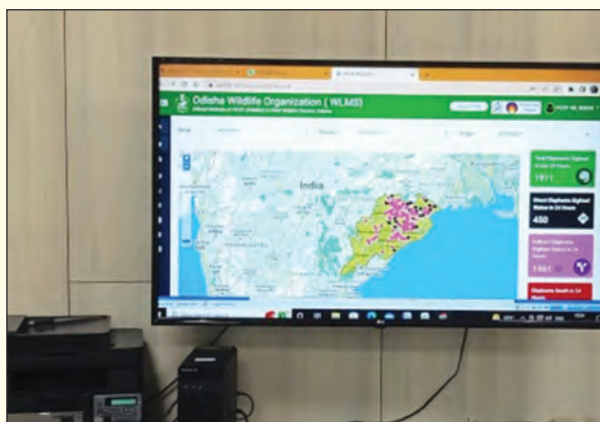
In the wake of rising number of incidents of man-animal conflicts, and elephant deaths in the State, the Department has issued a set of guidelines for monitoring the Elephant movement in the state to reduce man-elephant conflict.

Elephant Monitoring Mechanism

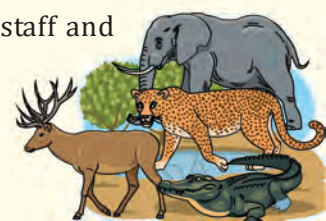
Every beat Forest Guard and section Forester has the responsibility to communicate to Range Officer regarding the presence/absence of elephants in their respective jurisdiction every day. During their movement, staff and squad members shall take photos of elephants or their fresh signs or their movement area (like water sources, salt lick etc. The data is uploaded in the Odisha Wildlife App or can be communicated either over phone or through wireless network immediately and photos may be taken on apps like NoteCam etc. which give location details of the photos and these photos is submitted to Range Officer at earliest



Range is the basic/key unit for monitoring of elephant movements and Range Officer concerned is responsible for monitoring the movement of elephants in his/her range. He/she co-ordinates with the staffs, squads, Gajabandhu, VSS members and also the station master to provide caution notice during the drive movement of the elephants to the nearest forest with free safe passage from the locality. And ensuring the presence of elephants through awareness via audio, video etc. early in the morning and during the noon to the public for remaining alertness and from prevention of casualty. Range Officer also co-ordinate with Division Control Room and neighbouring Ranges regarding the information on movement of elephant and staff position in the field and also address personally in the field during the driving of elephants in order to prevent from any mishap.



Division level is the focal point/point of convergence for monitoring the movements of the elephants. There is a Division Control Room number and it is well versed to all the staff and





villages. Division control room work 24×7 for monitoring elephant movements, One ACF remain in charge of the control room and ensure its proper functioning. He is assisted by Range Officer, Deputy Ranger, Foresters and Forest Guards. During night hours either Range Officer or Deputy Ranger remain in charge of the control room along with other staff under the supervision of ACF in charge. They co-ordinate with the field staff and Range Officers of neighbouring ranges of other Divisions and VSS Presidents and other prominent members of that locality and formation of Circle level, Inter-Divisional, Railway dept, Electric dept WhatsApp group for faster two-way communication helps in co-coordinating and safe drive of elephant movement and the important information is communicated to the DFO immediately. Data uploaded in the App and received through other means is regularly monitored by control room staff and also the information received from public/VSS etc. communicated to the field staff in the neighboring area for giving alerts to villagers and for organizing monitoring and tracking of elephants. Important information like presence/ sighting of elephants near Train Line, Unrectified Electrical points, National/State Highways, human kill/injury elephant death/injury and crossing over to other division are immediately passed by division control room to concerned field units. ACF of the Division, DFO and Circle & Head Office Control.

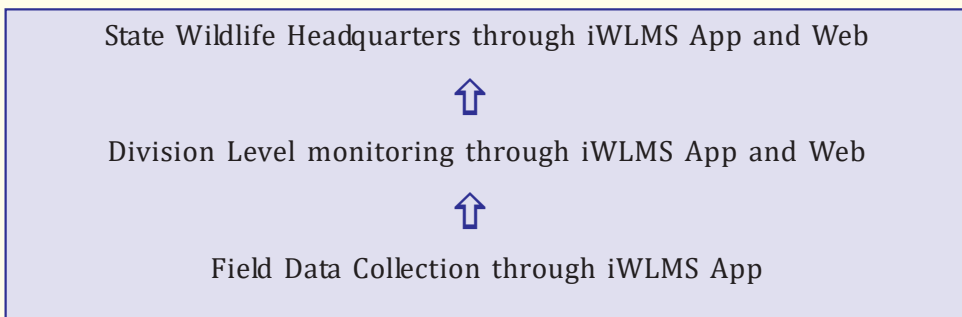
Circle Control Room also functions 24×7 for elephant movement monitoring. RCCF concerned supervise functioning of control room. Dy. C.F/ACF supported by Range Officers, foresters and Forest guards remain in charge of control room. Circle Control Room has all the telephone numbers of the staff of the circle and co-ordinate inter division and inter circle movements and relevant information on wildlife is immediately passed on to the field staff. Important/urgent information are conveyed to Dy. C.F/ACF in charge of control room (who in turn inform the RCCF) by the control room immediately for necessary action. Also, it is transmitted to PCCF (WL) office control room immediately.



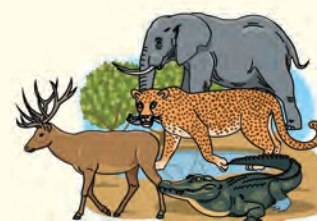


In the **Office of PCCF Wildlife Headquarters**, there is a 24×7 control room. headed by a DCF, supported by Range Officer, Forester, Forest Guard and support staff to work in three shifts. The staffs are being assigned to perform their duty in the control room. The information on Elephant movement is collected in two way i.e information from the Control Room and App Based. There is a control room mobile number through this the field units with the relevant information on wildlife and also the human kill/injury, elephant death/injury and crossing over to other divisions are immediately communicated to the control room. The data/information are also collected through the whatsapp from the field units and the control room scrutinizes the data. If any important informations received are immediately communicated to the higher Authority for resolving the matter.

An online App – integrated Wildlife Management System (iWLMS) has been launched with technical support from ORSAC. The Wildlife HQ control room monitors all data uploaded (Hourly basis) in the iWLMS App scrutinizes the information received from field units for monitoring the elephant movement regularly.



Apart from the Elephant monitoring, the other wildlife incidents reports are also received from all over the Divisions in the state on daily basis. Further, information and queries received from the Toll free No- 1800345677 are also actively responded and passed on to the field units to sort out the issues on time. There is also co-ordination among the control room staff of Circle and Divisions for quick passing of information and addressing the issues in the field.



Railway Control Room

There is functioning of Railway Control Room for taking steps to prevent accidents of elephant due to train hit. There are three control room are as follows:

Sl no	Name of Circle	Name of Division
Khordha Road Control Room		
1	Angul	Angul
2		Athagarh
3		Athamalik
4		Cuttack
5		Dhenkanal
6	Bhubaneswar	Bhadrak
7		Chilika
8		City Forest
9		Khordha
10		Nayagarh
11		Puri
12	Berhampur	Berhampur
Bandhamunda Control Room		
13	Rourkela	Bonai
14		Keonjhar
15		Rourkela
16		Sundargarh
Sambalpur Control Room		
17	Bhawanipatna	Bolangir
18		Kalahandi(South)
19		Khariar
20		Subarnapur
21	Koraput	Rayagada
22	Sambalpur	Bamra(WL)
23		Bargarh
24		Jharsuguda
25		Redhakhol
26		Sambalpur



APPROACHES TO MITIGATE HUMAN-WILDLIFE CONFLICT

Population increase and degrading habitat have brought wildlife and humans together which further generates these conflicts resulting in human kill, human injury, house damage, crop damage and livestock depredation. Fragmentation of wildlife habitats for development projects and increasing biotic pressure pushes the wild animals to enter into human landscape for which human animal conflict arises. Prevention and mitigation are two basic approaches adopted for managing the impact of Human-Wildlife conflicts.

"JANA SURAKHYA GAJA RAKHYA" — ERECTION OF SOLAR FENCING AROUND THE CROP FIELD IN PPP MODE — A SCHEME TO MINIMIZE HUMAN ANIMAL CONFLICT BY LOCAL COMMUNITIES.

To overcome man animal conflict it is desired to secure active role of communities in this endeavour to ensure its effective implementation for this purpose. A scheme is as below.

OBJECTIVES

1. To prevent entry of wild elephants into human habitations.
2. To make communities partner in addressing Man-Elephant Conflict.


MODALITIES OF IMPLEMENTATION

This scheme will be implemented as below

A) For Communities

1. In elephant conflict areas the solar fencing shall be erected along the forest boundary / village / hamlet / boundary to prevent the entry of elephants in to human habitations.
2. Villages interested to have solar fencing in their area shall conduct a meeting of Gram Sabha and pass a resolution with majority who have solar fencing in their area.
3. This resolution will be forwarded to concerned DFO through local Ward Member.
4. On receipt of such resolution the DFO concerned shall get a feasibility study done from an officer not below the rank of ACF. Findings of such study shall be discussed with the Gram Sabha and exact stretch and length to be covered shall be decided jointly by Forest Department and Gram Sabha.
5. Care should be taken that erection of solar fence should not adversely affect the neighbouring villages. Also, the natural movement path of elephants should not be blocked.
6. On finalization of the stretch and length of the solar fence, villagers of the concerned village shall deposit 10% of the total cost of solar fence with the concerned DFO. Rest amount shall be contributed by the Government.
7. An MoU shall be signed between DFO and the Villagers defining roles and responsibilities of both sides.



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8. On receipt of share of the villagers DFO will execute the works in the field. At least 5 Years maintenance shall be incorporated in the agreement with the agency executing the work.
 9. For this purpose, agencies shall be empanelled by the department to execute the work of solar fencing as per cost norm fixed.
 10. After execution, the solar fence shall be handed over to the community for its maintenance and upkeep.

B) For Individuals

1. Orchards are used by elephants as hiding places during day time and lead to damage of orchards and many accidental deaths of human beings. Solar fencing for individuals shall be limited to orchards only.
2. Individual Orchard owner who is interested to have solar fence around his / her orchard shall apply to concerned DFO.
3. On receipt of request from Orchard owner, DFO shall get the same physically verified in the field by Range Officer / ACF. Inspecting Officer shall submit feasibility report (indicating length etc.) to DFO giving details.
4. On receipt of report from field, if solar fence is to be taken up then the individual orchard owner shall be informed in writing about the same. He should be asked to get the solar fence installed from an empanelled agency of the department.
5. On installation of solar fence by the orchard owner, DFO shall get the solar fence verified and if satisfied with quality and quantity then 50% share of the total cost shall be reimbursed by the DFO to the orchard owner.
6. For this purpose, agencies shall be empanelled by the department to execute the work of solar fencing as per cost norm fixed. At least 5 Years maintenance shall be incorporated in the agreement with the agency executing the work.
7. After execution, the solar fence shall be handed over to the orchard owner for its maintenance and upkeep. An MoU shall be signed between DFO and Orchard owner defining roles and responsibilities.

Already one 19km of the solar fencing has been done in 2022-23 on pilot basis and another 200 km is targeted for the current year 2023-24.

GAIA SATHI

It is felt that more involvement of communities is required to handle Human Elephant Conflict. Project Elephant Division of MoEFCC has issued draft **Suggesting Operating Procedure for Dealing with Emergency Situations of Human-Elephant Conflict**. Under item 10.8 Role of village volunteers / Hathi-mitra dal in conflict situations is prescribed. It states as below:



A volunteer group of villagers from villages/Rapid Response teams/ elephant drive teams may be formed in villages acutely affected by Human-Elephant Conflict. The Forest Department should identify motivated youth from the villages and train them in Human-Elephant Conflict management. Their role during conflict situations includes-

- i. Communicate the details of elephant presence / movement to Forest Department
Such details may sometimes be opportunistically gathered by interacting with cattle grazers and villagers who may have seen elephants or their signs.
- ii. Assist Forest Department in monitoring conflict at the village level.
- iii. Assist various line agencies in safely moving people, especially women and children from the conflict affected areas.

Gaja Sathi scheme during 2022-23

The following Divisions have been identified under Gaja Sathi Scheme during 2022-23.

Sl. No	Divisions	No. of villages	Sl. No	Divisions	No. of villages
1	Angul	125	15	Kalahandi South	10
2	Athgarh	105	16	Karanja	30
3	Athmallik	25	17	Keonjhar WL.	10
4	Balasore WL.	25	18	Keonjhar (T)	160
5	Baripada	105	19	Khordha	45
6	Berhampur	10	20	Nayagrah	10
7	Bolangir	25	21	Rairakhol	54
8	Bonai	15	22	Rairangpur	10
9	Cuttack	10	23	Rourkela	20
10	Deogarh	93	24	Sambalpur	50
11	Dhenkanal	150	25	Subarnpur	10
12	Ghumsur North	25	26	Sundargar	20
13	Ghumsur South	10	Total		1177
14	Kalahandi North	25			

Implementation of “Gaja Sathi” scheme during 2023-24.

DFOs have been requested to complete the process of selection of “Gaja Sathi” in consultation with the village committees as per the guidelines and complete the training of the selected volunteers by the end of August, 2023. The training cost @Rs.2500/- per village is being released to concerned Division. The training cost and incentive amount and cost of other logistics shall be released in due course. The “Gaja Sathi”



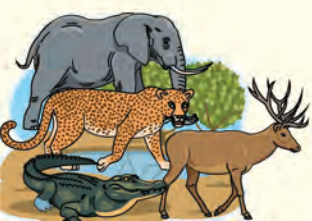
volunteers shall be engaged from 1st October, 2023 for a period of 5 months. And, the scheme is proposed to cover about 2000 number of villages in the current year.

Status of human – wildlife Conflict and provisioning of compassionate payment for wildlife depredation.

Rate of Compassionate grant due to depredation by specified wild animals under provisions of Wildlife (Protection) (Odisha) Rules, 1974 in respect of State of Odisha has recently been enhanced substantially to provide relief to the victims of Wildlife Depredation.

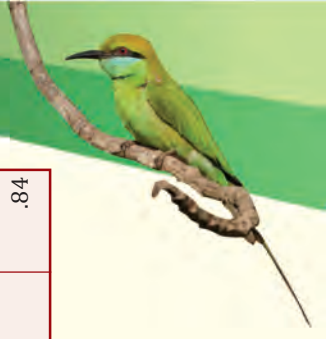
Sl. No	Type of Depredation	Wildlife (Protection) (Odisha) Rule, 1974	Previous Rate of Compassionate grant	New Rate of Compassionate grant with effect from 03.05.2023 (Revised vide FE&CC Notification No.9128 dated 03.05.2023)
1	Human kill	45-AA	Rs.4.0 lakhs	Rs.6.0 lakhs
2	Permanent injury	45-BB	Rs.1.0 lakh	a. Rs.1.5 lakh in case of disability less than 60% b.Rs.2.5 lakh in case of disability more than 60%
3	Temporary injury	45-BB	Rs.5000/+ free treatment in Govt. Hospital	a. Rs.10,000/- + free treatment in Government hospital, if the hospitalisation is more than 1 week. b.Rs.5,000/- + free treatment in Government hospital, if the hospitalisation is less than 1 week.
4	Bullock / Cow / Buffalo	45-CC	Rs.5000/-	a.Rs.37,500/- for cow & Buffalo b.Rs.32,000/- for Bullock
5	Calf	45-CC	Rs.2500/-	Rs.5,000/-
6	Sheep / Goat	45-CC	Rs.2000/-	Rs.4,000/-
7	Lamb	45-CC	Rs.750/-	Rs.1,500/-
8	Crop damage (Paddy & Cereals)	45-EE	Rs.10000/- per Acre	Rs.20,000/- per Ac
9	Crop damage (Cash crop)	45-EE	Rs.12000/-per Acre	Rs.25,000/- per Ac
10	House damage (Part)	45-FF	Rs.2000/-	Rs.10,000/-
11	House damage (Full)	45-FF	Rs.10000/- + allotment of house under 'Biju Pucca Ghar' since 20.10.2014)	Rs.20,000/- + Biju Pucca Ghar or cash equivalent in lieu Biju Pucca Ghar by the Department

It is highest in the East Central Landscape of elephants comprising of states of Chhatishgarh, Jharkhand, West Bengal and Odisha and the compassionate amount towards cattle kill is also averaging highest in the country.



(A) Crop Damage due to Wildlife Depredation
Crop Damage: Table showing year wise depredation trend over last ten years in the state of Odisha
Loss of human life and property due to wild animal depredation from 2013-14 to 2022-23

SL No.	Year	Human Kill		Human Injury		Cattle Kill			House Damage		Crop Damage (in Acres)										
		Due to Elephant	Due to Others	Total	Due to Elephant	Due to Others	Total	Due to Elephant	Due to Sheep by wolf Dead/Injured	Total	Part	Full	Total	Due to Elephant Victim / Area	Due to Others Victim / Area	Total Victim / Area					
1	2013-14	67	26	93	38	170	208	9	29	-	38	863	176	1039	24378	11769	967	466	25345	12235	.63
2	2014-15	65	9	74	34	106	140	8	22	-	30	570	209	779	25819	9638	828	1126	26647	10764	.89
3	2015-16	89	18	107	65	244	309	6	50	-	56	521	144	665	34260	11643	2459	977	36719	12621	.14
4	2016-17	66	30	96	29	219	248	20	35	-	55	536	185	721	35342	9619	2031	555	37373	10174	.37
5	2017-18	105	27	132	51	232	283	30	82	178	300	814	464	1278	40585	10390	3527	856	44112	11246	.85
6	2018-19	85	27	112	63	174	237	50	77	30	157	847	683	1530	37782	10513	3528	937	41310	11450	.42
7	2019-20	117	23	140	67	277	344	16	69	38	123	1337	1269	2606	49605	15264	7048	1600	56653	16864	.79
8	2020-21	139	19	158	86	241	327	9	60	14	83	1127	1047	2174	46831	14375	8742	1812	55573	16187	.28
9	2021-22	113	15	128	125	217	342	26	52	-	78	938	633	1571	32367	19487	3885	1129	36252	20616	.45
10	2022-23	148	26	174	102	306	408	26	240	-	266	1189	541	1730	33822	12148	9887	3125	43709	15274	.01
	Total	994	220	1214	660	2186	2846	200	716	260	1186	8742	5351	14093	4E+05	124849	42902	12586	403693	137435	.84





Compassionate Grant Paid: Table showing Compassionate Grant Payment due to wildlife depredation during Last 10 years in the State of Odisha

Compassionate amount paid in Odisha due to wild animal depredation from 2013-14 to 2022-23 (Rupees in lakhs)

Year	Human Kill		Human Injury		Cattle Kill		House Damage due to elephant		Crop Damage due to other animals				Total amount paid
	Due to Elephant	due to other animals	Due to Elephant	due to other animals	Due to Elephant	due to other animals	Due to Elephant	due to other animals	Due to Elephant		due to other animals		
	No. of Amount paid victims	No. of Amount paid victims	No. of Amount paid victims	No. of Amount paid victims	No. of Amount paid victims	No. of Amount paid victims	No. of Amount paid victims	No. of Amount paid victims	Area (in acres)	Amount paid	Area (in acres)	Amount paid	
2013-14	64 122 .40	18 34.90	32 9.92	182 33.95	9 0.38	27 1.33	916 29.64	13211 .53	983 .21				1215.73
2014-15	99 196 .57	29 64.60	27 8.32	189 42.06	7 0.35	28 1.20	1196 46.46	14788 .35	1346 .05				1705.60
2015-16	80 203 .21	18 48.70	65 19.71	177 58.60	4 0.18	35 1.73	1136 47.10	12496 .76	1149 .07	3017	1548 .53	65.09	1593.37
2016-17	88 251 .33	18 54.00	43 17.77	175 58.73	4 0.20	17 0.68	955 36.94	11273 .61	1203 .08	2994	665 .01	63.32	1686.04
2017-18	90 259 .80	36 101 .40	27 8.90	174 52.70	26 1.25	166 4.29	1557 94.85	11545 .08	1176 .29	3161	823 .44	86.61	1786.08
2018-19	80 270 .79	19 61.59	34 16.70	151 56.22	42 2.14	61 2.33	1557 86.54	9176 .99	955 .00	2931	793 .27	77.79	1529.09
2019-20	131 362 .48	24 78.92	42 15.35	224 72.62	16 0.75	58 3.16	2161 127 .26	14410 .90	1473 .35	5534	1484 .77	123 .45	2257.33
2020-21	177 637 .16	28 94.72	101 23.40	300 61.66	20 1.01	67 2.72	2286 135 .84	13195 .68	1264 .67	7353	1336 .70	151 .96	2373.13
2021-22	131 486 .37	18 66.18	156 45.70	302 54.67	25 1.15	45 2.26	1666 73.96	13630 .09	1283 .65	5315	1571 .20	133 .54	2147.48
2022-23	160 581 .10	25 76.80	123 31.75	287 48.30	27 1.21	136 7.87	1857 87.75	12589 .92	1234 .66	9857	3110 .84	292 .28	2361.72
Total	1100 3371 .19	233 681 .80	650 197 .52	2161 539.51	180 8.61	640 27.54	15287 766 .34	12069 40162 11333 .76	12069 40162 11333 .76	994 18655 .57			

Note: The numbers of victims and amount paid during the years imply that the total number of victims received payment from the allotment made during that years. It includes the occurrences of the current year as well as back log of previous years.

Death of Elephant: Table showing elephant death due to various reasons in Odisha during last ten years.

Death of Elephants for various Reasons in Odisha from 2013-14 to 2022-23

Sl No	Year	Poaching	Poisoning	Electrocution		Accident				Disease			Natural	Reason on unknown	Retaliatory killing	Total
				Accidental	Deliberate	Train	Road	Other Accident (Infighting, falling from hill etc.)	Anthrax	Herpes	Other					
1	2013-14	11	1	1	5	1	0	5	0	14	15	17	-	70		
2	2014-15	4	1	2	2	0	1	11	4	12	9	8	-	54		
3	2015-16	2	0	5	9	1	1	12	12	17	11	16	-	86		
4	2016-17	2	0	3	3	0	0	15	14	25	7	7	-	76		
5	2017-18	2	1	5	4	2	0	24	2	24	6	8	-	78		
6	2018-19	2	0	15	9	7	0	20	4	27	4	5	-	93		
7	2019-20	2	0	0	7	1	4	21	9	22	13	1	-	82		
8	2020-21	2	0	1	7	4	0	10	5	4	13	10	-	77		
9	2021-22	2	0	5	8	3	0	10	4	4	8	12	-	86		
10	2022-23	8	0	8	18	3	0	16	0	1	3	6	2	92		
	Total	37	3	45	72	22	6	144	54	11	89	90	2	794		

* Other accident (Infighting, stampade, falling from hill top, falling in well, muddy tank & nala, lightening, heart stroke etc.)



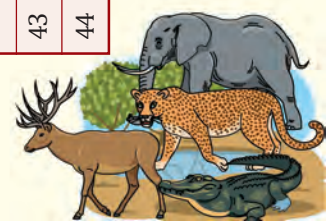


Division wise Average Victims

Average number of victims of human kill and injury, Crop damage, cattle kill and House damage due to wild animal depredation received compassionate grant from 2013-14 to 2022-23

Sl No	Division	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Total	Average for 10 years
1	Angul	2267	5257	2492	7572	5674	7432	10339	9324	6248	8219	64824	6482
2	Athagarh	2046	2894	1295	3784	2628	1384	2499	2347	744	2097	21718	2172
3	Athmallik	701	1116	1618	1869	4508	2010	1683	1406	1082	1673	17666	1767
4	Balasore WL	1767	123	1236	177	1049	211	1294	336	1467	802	8462	846
5	Baliguda	89	2809	195	33	0	3	22	133	137	64	3485	349
6	Bamra WL	201	243	253	189	222	229	379	869	916	1530	5031	503
7	Bargarh	1139	4076	3482	3568	1201	1608	1311	1176	417	779	18757	1876
8	Baripada	1749	3758	2190	857	2215	2223	2116	2002	2792	1741	21643	2164
9	Berhampur	10	198	956	599	524	692	515	1062	340	235	5131	513
10	Bhadrak WL	2	2	2	1	3	2	1	4	0	3	20	2
11	Bolangir	935	455	7	8	861	426	492	429	811	657	5081	508
12	Bonai	187	1079	694	1111	763	790	781	440	1636	1561	9042	904
13	Boudh	171	129	4	86	69	178	156	517	82	240	1632	163
14	Chandaka WL	224	186	253	69	223	157	160	85	91	59	1507	151
15	Chilika WL	197	8	54	18	62	63	39	58	32	55	586	59
16	City forest	30	0	3	0	137	0	0	2	3	27	202	20
17	Cuttack	673	776	1166	721	662	249	634	342	337	309	5869	587
18	Deogarh	494	691	630	1268	2509	1253	4326	4131	3448	3259	22009	2201
19	Dhenkanal	3655	4470	6165	6242	6164	4305	5737	7599	2531	2869	49737	4974
20	Ghumsur (N)	558	1750	2042	1720	1143	380	616	1833	1226	2104	13372	1337

Sl No	Division	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Total	Average for 10 years
21	Ghumsur (S)	179	172	628	539	810	118	637	340	287	383	4093	409
22	Hirakud (WL)	0	0	0	0	0	0	33	17	24	40	114	11
23	Jeyore	179	108	78	11	34	7	40	14	10	11	492	49
24	Jharsuguda	336	624	616	516	180	577	428	217	193	172	3859	386
25	Kalahandi (N)	100	85	287	74	96	223	298	240	1853	1787	5043	504
26	Kalahandi (S)	12	6	18	61	185	199	385	296	356	353	1871	187
27	Karanjia	467	1303	1331	1365	917	474	2389	2057	3311	4081	17695	1770
28	Keonjhar	2868	3654	3981	4121	3450	3155	2919	3714	4011	3027	34900	3490
29	Keonjhar WL	19	91	11	80	116	192	466	656	333	408	2372	237
30	Khariar	8	16	38	39	114	56	407	38	195	176	1087	109
31	Khordha	3020	816	2573	4069	2535	2325	3705	1806	3205	2320	26374	2637
32	Koraput	729	325	170	6	9	9	6	3	9	14	1280	128
33	Mahanadi WL	3	22	93	185	183	484	361	477	86	117	2011	201
34	Malkangiri	13	15	14	10	4	8	12	10	11	6	103	10
35	Mangrove	20	63	229	52	72	86	98	70	45	31	766	77
36	Nawarangapur	13	16	6	9	11	5	20	7	47	16	150	15
37	Nayagarh	62	361	348	0	226	105	702	494	1223	837	4358	436
38	Pkhemundi	2	1	2	0	834	311	84	105	0	39	1378	138
39	Phulabani	14	77	31	8	7	4	15	0	37	29	222	22
40	Puri (WL)	0	0	1	4	4	4	5	5	0	36	59	6
41	Rairakhol	126	390	426	781	2345	2208	2784	1853	2379	1370	14662	1466
42	Rairangpur	143	679	1127	847	618	523	325	393	321	318	5294	529
43	Rayagada	139	2638	1082	382	58	145	169	104	58	256	5031	503
44	Rourkela	1319	2278	1575	1366	1022	1186	1029	1694	905	777	13151	1315





Sl No	Division	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Total	Average for 10 years
45	Sambalpur	1187	497	531	207	86	805	615	1071	941	661	6601	660
46	Satakosia WL	468	258	561	713	658	395	889	709	583	609	5843	584
47	Subarnapur	1219	1669	605	777	721	63	1661	323	1293	642	8973	897
48	Sunabeda WL	0	1	7	25	44	12	33	42	4	2	170	17
49	Sundargarh	245	856	1665	1356	3112	935	1237	1551	474	257	11688	1169
50	Similipal North								28	9	49	86	9
51	Similipal South							3	11	29	17	60	6
	Total	29985	47041	42771	47495	49068	38209	54855	52440	46572	47124	455414	45541

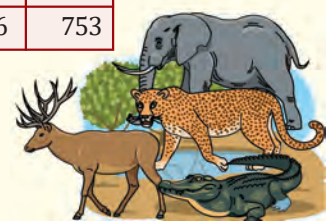


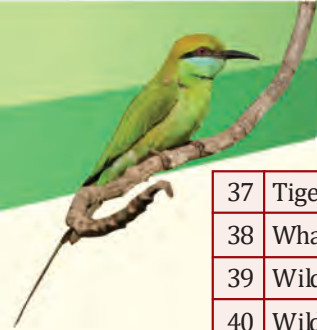
Barehipani Water Fall, Similipal

Death of Wild animals from 2013-14 to 2022-23 (last 10 years)

Details of wild animals death reported from 2004-05 onwards

Sl No.	Name of Animal	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Total
1	Barking Deer	34	52	35	62	46	42	43	74	48	55	491
2	Bird	182	72	113	75	0	128	0	41	-		611
3	Bison /Gaur		1	3	7	13	6	13	9	9	14	75
4	Black buck	18	16	21	18	40	38	30	21	20	16	238
5	Chowsinga		1	4	2	5	1	1		2	2	18
6	Civet cat	3			2	4	1	5		5	10	30
7	Common Langur	12	5	6	22	25	7	17	8	27	26	155
8	Crocodile	7	9	4	8	1	4	7	3	7	6	56
9	Dolphin	2	7	8	6	5	10	8	5	21	9	81
10	Elephant	70	54	86	76	78	93	82	77	86	92	794
11	Fishing Cat			2	3	2	2	4		2	2	17
12	Flying squarrel				1					2		3
13	GSS Turtle			1		2						3
14	Giant Squirrel	1	1	6	4	2	2		2	2	3	23
15	Hyena	10	4	5	9	7	4	6	6	3	5	59
16	Jackal	1		2		2		3	3	2	7	20
17	Jungle cat			1	4	4		2	4	4	5	24
18	Jungle fowl					3				2		5
19	King Cobra				1	3		1	2		1	8
20	Leopard	4	5	8	4	2	6	3	7	7	10	56
21	Monitor Lizard	16		2	1	1				6		26
22	Mouse Deer		1	4	6	7	1	2	5	5	9	40
23	Mongoose										1	1
24	Nilgai		1	1		1						3
25	Otter									1		1
26	Pangolin		1	2	5	1	1	5		2	2	19
27	Peacock	1	2	31	4	2	4		4	3	5	56
28	Porcupine	1	4	1	7	5	4	3	8	3	8	44
29	Purpoise					2	1					3
30	Python	2	1	4	5	2	2	2	1	7	4	30
31	Rabbit/Hare		6	4	4	9		2	2	2		29
32	Ratel / Honey bugger	1	1		1	4	5	4	3	2	4	25
33	Sambar	9	18	25	27	23	31	20	33	28	33	247
34	Shark					1	26					27
35	Sloth Bear	38	32	38	34	39	33	22	30	27	29	322
36	Spotted Deer	40	42	78	70	103	79	86	77	82	96	753





37	Tiger		1		1	1	2			1	6
38	Whale		2	2	2	1	2	1	1	2	14
39	Wild Boar	32	49	64	81	96	104	100	161	112	928
40	Wild dog									1	1
41	Wolf	1	2	2	4	4		3			16
Total		485	390	563	556	546	639	475	587	532	5358



Golden Jackel, Waterbody, Bharatpur RF – Chandaka Wildlife Division



Eco Development Committee: Local communities in wildlife management around PA form EDC.



List of EDC involved in Wildlife Conservation up to 31.03.2022

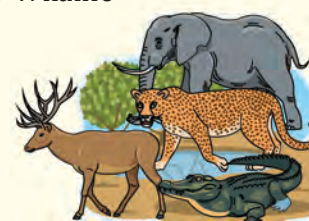
SLNo.	Name of the Division	Name of the District	No. of EDC
1	Satkosia WL	Angul	37
2	Mahanadi WL	Nayagarh	17
3	Balasore WL	Balasore	3
4	STR, Baripada	Mayurbhanj	180
5	Puri WL	Puri	29
6	Chandaka WL	Khurda	27
7	Rajnagar WL	Kendrapara	48
8	Bhadrak WL	Bhadrak	20
9	Kalahandi South	Kalahandi	14
10	Sunabeda WL	Nuapada	4
11	Keonjhar WL	Keonjhar	5
12	Bamra WL	Sambalpur	25
13	Hirakud WL	Sambalpur	23
14	Balliguda	Kandhamal	80
15	Parlakhemundi	Gajapati	4
16	Dhenkanal	Dhenkanal	23
Total			539


Site Specific Wildlife Conservation Plan

Odisha, being rich in wildlife wealth has an excellent mineral resources also. It is very likely that during the process of mining and other developmental activities the wildlife and their habitats are affected adversely. So, a site specific wildlife conservation plan has been made mandatory wherever required for any clearance of mining or industrial projects. The Plan takes care of protection & conservation requirements of wildlife and improvement of their habitat in that very specific site. The implementation of site specific plans support in someway to mitigate the Man-Animal conflict issues of that area by facilitating financial support for infrastructure development and deployment of squads.

Regional Wildlife Management Plan

State Government has stipulated for realization of cost towards implementation Regional Wildlife Management Plan in the impact areas as well as its periphery, while sending proposals for diversion of forest land for mining purpose. The State Govt. fixes the cost norm per ha. of forest land diverted for realization of cost towards implementation of Regional Wildlife





Management Plan from the user agencies and is deposited in State CAMPA account. The latest cost norm is Rs.82,000/- per ha. which has been fixed vide Govt. letter No. 26159/F&E dt 05.12.2018 and affective since 30.10.2018.

For utilisation of the said funds, Government of Odisha in Forest & Environment Department executed an MOU with WTI on dated 11.12.2015 at a cost outlay of Rs.3.65 Crores for preparation of Comprehensive Wildlife Management Guidelines (OSCOW-MAG). Thereafter, WTI submitted the final guideline documents on dated 25.01.2021 after which funds provisions were made under various areas of activities identified in the said guidelines. Ten broad components (having many subcomponents) have been identified for implementation with due prioritization of such activities for every Division and Circle of the state. The components identified are Species Specific Management Programme, Rationalizing Protected Area Network, Eco-restoration Programme, Ex-situ In-situ Integration Programme, Capacity Enhancement, Human Wildlife Conflict Management, Wildlife Protection Enforcement, Trans Boundary Wildlife Management & Co-ordination, Research and Monitoring and Education and Awareness.

Circles have been identified as units for implementation of RWLMP. Division specific proposals under the components specified in OSCOW-MAG are invited from all divisions which are compiled and finalised at the circle level and are sent to the State Wildlife Headquarters. A Committee chaired by Addl. PCCF (WL)/CCF (WL) and comprising of all RCCFs as ex-officio members and 3 DFOs nominated to the committee by the Chairman under takes scrutiny of all the proposals and submits its recommendations to the PCCF (WL). The draft proposal is then forwarded by PCCF (WL) to Govt. for receiving their approval. On receipt of such approval, the RWLMP proposal is finalised and included in CAMPA APO. Funds to the tune of Rs.1500.00 lakhs was first allocated during CAMPA APO: 2022-23 which was enhanced to Rs.2000.00 lakhs during CAMPA APO: 2023-24. It is to proposed to further increase the fund allocation under RWLMP to Rs.3000.00 lakhs in CAMPA APO: 2024-25.

Voluntary Village Relocation

Many villages owing to their locations deep inside the forests in most cases are seen to fall in the rain shadow area of all the Govt. schemes intended towards social welfare & strengthening of their livelihood and thus remain largely deprived. Voluntary relocation of these villages with a human touch to areas closer to other human settlement is the only way out to address the issues and give a chance both to human & forests including wildlife to coherently thrive in harmony with each other. Village relocation from inside protected areas is done with the consent of the villagers being relocated as per the relocation policy guidelines issued by NTCA in the year 2008. This policy is applicable only to those villages which are found inside core area of the Tiger reserves. The State Government in 2016 have issued an additional set of guidelines which extends the financial assistance and other incentives/ benefits available for villages of core villages located inside the tiger reserve as per NTCA guidelines and villages situated in protected areas other than the core areas of the tiger reserves. The state guidelines have a wide scale applicability and extends to all villages in National Parks and Sanctuaries not covered by NTCA guidelines.

As per State Govt Notification No. 8F (WL)-67/2016/12000/ F&E, Dated 29.06.2016 for volunteer relocation of a single individual family without rehabilitation package, incentive of Rs. 5.00 lakhs per family will be paid in addition to lump sump amount of Rs.15.00 lakhs; this provision has made the state policy unparalleled in the country.

This revised financial assistance/ support will also be applicable to the families willing to be relocated from the inaccessible forest areas including areas connecting wildlife habitats.

This revised guidelines was applicable from the year 2021-22 FY onwards, In accordance with the above guidelines, 133 families of 02 villages in two protected areas (Similipal TR and Satkosia TR) have been relocated in 2022-23.


The status of proposals for village relocation during the year 2023-24 is mentioned below:

- ❖ 131 number of household have agreed to be relocated from Similipal Tiger Reserve.
- ❖ 38 families are to be voluntarily relocated from Hadagarh (WL) Sanctuary.

Details of reblocation carried out from 1994-95 to 2022-23.

Sl. No.	Village	Name of Tiger Reserve/Sanctuary	Family	Year
1	Jamunagarh	Similipal TR,Core	46	1994 2015
2	Jenabil	Similipal TR,Core	84	1998 2010
3	Kabatghai	Similipal TR,Core	85	1994 2003 2016
4	Barakamuda	Similipal TR,Core	22	2013
5	Bahaghara	Similipal TR,Core	10	2013
6	Raigoda	Satkosia TR	78	2017
7	Kiajahari	Similipal TR, Buffer	79	2016
8	Debrigarh	Debrigarh (WL) Sanctuary	8	2017
9	Jhagada Behera	Debrigarh (WL) Sanctuary	66	2018
10	Sanbarakamuda (Matakocho)	Similipal TR, Buffer	42	2018
11	Ramjodi	Similipal TR, Buffer	73	2017
12	Malipadar	Khalasuni (WL) Sanctuary	3	2019
13	Khejuri	Similipal TR, Buffer	110	2020
14	Pitanau West Hamlet	Hadagarh (WL) Buffer	95	2020
15	Lambipali	Debrigarh (WL) Sanctuary	42	2021
16	Baliamba	Khalasuni (WL) Sanctuary	3	2021
17	Bhutuli, Rengali, Kurumkel	Debrigarh (WL) Sanctuary	359	2022
18	Pitanau West Hamlet	Hadagarh (WL) Core	75	2022
19	Jamunagarh	Similipal Tiger Reserve	13	2022
20	Katrang	Satkosia Tiger Reserve	120	2022
Total Village: 21			1413	





There are still large number of villages existing in the PAs of the State as detailed in the following table.

List of Villages located inside Protected Areas

Sl.No.	Name of the Sanctuary	Total village inside the Sanctuary
1	Chandaka Wildlife Sanctuary	3
2	Sunabeda Wildlife Sanctuary	26
3	Badrama Wildlife Sanctuary	27
4	Khalasuni Wildlife Sanctuary	01
5	Lakhari Valley Wildlife Sanctuary	06
6	Kuldiha Wildlife Sanctuary	5
7	Kotgarh Wildlife Sanctuary	65
8	Similipal Wildlife Sanctuary	56
9	Satkosia Wildlife Sanctuary	125
10	Hadgarh Wildlife Sanctuary	2
11	Karlapat Wildlife Sanctuary	19
12	Baisipalli Wildlife Sanctuary	62
13	Puri Wildlife Sanctuary	0
14	Kapilash Wildlife Sanctuary	01
15	Chilika Wildlife Sanctuary	0
16	Bhitarakanika Wildlife Sanctuary	358
17	Gahiramatha Wildlife Sanctuary	0
18	Nandankanan Wildlife Sanctuary	0
19	Debrigarh Wildlife Sanctuary	0
TOTAL		756

N.B: List of villages as per approved Sanctuary Management Plan

These villages will also be gradually persuaded and those willing to voluntarily relocate will be facilitated. And the areas vacated will be developed for betterment of wildlife habitats

Ecotourism

Through involvement of forest fringe villages this intervention has been taken up. Further, districts are spelt out in Chapter X.

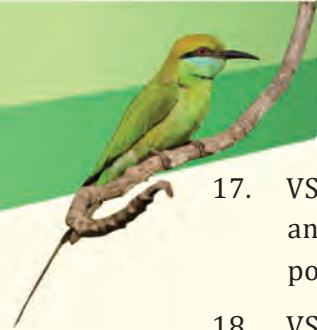
Action taken by the State Government to address Man-Animal Conflict

To mitigate man-animal conflict the Govt. of Odisha has taken a number of steps as under.

1. Standard operating procedure (Approved by State Govt.) to deal with emergency due to straying of wild animal in human dominated landscape is being followed in the State.

2. The field functionaries have been directed to follow guidelines for management of human elephant conflict provided by the MoEF.
3. Coordination meeting with Energy, NH, Works Dept. and Railways are being conducted regularly at DFOs / RCCFs / PCCF level to minimize human elephant conflict. In fact, insulation of loose electric conductors besides putting of inter posing poles to ensure proper ground clearance are also being ensured.
4. Meeting of the Inter-State Coordination Committees on elephants (Eastern Region) on Human-Elephant conflict are being organized regularly to mitigate the problems arising out of trans-boundary migration of elephants to Odisha from the neighboring States i.e. Chhatisgarh, Jharkhand and West Bengal
5. Protection squads have been deployed in the vulnerable locations in the State for the protection / conservation of wild animals as well as to prevent depredation by wild animals.
6. Anti-depredation committee and Rapid Response Teams have been constituted in the Forest Divisions to address the problems arising out of wild elephant menace as per the Standard Operating Procedure (SOP) approved by State Govt. and to chalk out the strategies for preventing wild animal depredation and take instant action in case of depredation noticed.
7. Habitat enrichment works are being taken up in forest areas by raising fodder plantations, creation & renovation of water bodies and fire prevention works etc. through Elephant Management plan and Odisha budgetary allocations.
8. Habitat enrichment is being done through fodder plantation, creation and maintenance of water bodies etc.
9. 24x7 toll free helpline is working in the State Wildlife Headquarter to receive information from the public on wildlife matter and field functionaries are intimate action.
10. 24x7 Control Room has been setup in Division, Circle and Headquarters level to receive information from the public on wildlife matter.
11. 19 (nineteen) numbers of Sanctuaries, 1 National Park, 2 Tiger Reserves, 3 (three) Elephant Reserves and 1 biosphere reserve have been constituted in the State of Odisha.
12. Signages are fixed on the wild life movement paths for awareness among the people and divers of vehicles when passing the road.
13. Wildlife habitat and presence of wild elephants are monitored by Drone in some areas.
14. Through the Elephant Monitoring App movement of wild elephant is tracked for early warning to the villagers.
15. Through Forestry App, patrolling by staff and squad, wildlife incidents and crop damaged are recorded.
16. Solar lights have been installed in vulnerable villages to reduced man-animal conflict.





17. VSS / Eco-development committees in village level are formed to protect wild animals and their natural habitats and to create favourable condition for enhancement of their population.
18. VSS/Eco Development Committee members, and school students are being motivational to join hands with Forest Department to save Wild lives and reduce human elephant conflict along with other awareness activities such of posting pamphlets, distribution of leaflets, celebration of various wildlife and forest days, rally, workshop, road side public assemblage, various competitions.
19. As a part of community participation in conflict management, village level volunteers called 'Gaja Sathi' have been engaged in elephant conflict prone areas.
20. To prevent salt water crocodiles attack in river system, barricaded bathing ghats have been constructed in the villages along such rivers having crocodile movement.
21. To prevent straying of wild boars and deer to crop fields GI chain link fencing have been done along forest boundary particularly in Bhitarkanika National Park.
22. A Joint Task Force (JTF) consisting of forest and police officials as well as elephant experts, has been constituted by Government vide Order No.16368/FE&CC dated 13.09.2022 for protection of elephants and other wild animals of the State. The Task Force also have the mandate of preparation of a comprehensive Action Pan for improvement of wildlife habitat and checking wildlife crimes including poaching and man-animal conflict.
23. Awareness posters on sloth bears have been fixed in villages of bear conflict areas.
24. "ANUKAMPA" app has been launched for online application and payment of compassionate amount for loss of life and property of human being due to wild animal depredation.
25. Solar fencing, elephant proof trenches and stonewalling are being provided in the depredation prone localities to prevent menace of wild elephants into human habitations.
26. A Scheme named "Jana Surakhya, Gaja Rakhya" has been in implementation since 2022-23 to reduce man elephant conflict by promoting erection of solar fence around the crop field of elephant depredation area by community / individual on PPP mode.
27. District Level Committees have been constituted in each district by the State Govt. on dated 30.05.2023 to address the human wildlife conflict. The committee under the chairmanship of the Collector with the District headquarters DFO as member secretary, comprises of SP, DCMO, CDAO, CDVO, representative of Railway, Roads, DISCOMS, etc for better coordination.

State successfully organized the World Elephant Day celebration at Bhubaneswar on 12th August 2023 to bring all stake holder for creating awareness. It was jointly organized with MoEF&CC where Hon'ble Union Minister, Hon'ble State Minister participated besides Chief Wildlife Wardens of different states and villagers from various Divisions of the State.



WILDLIFE HEALTH MANAGEMENT

PREVENTION AND CONTROL OF DISEASES IN WILD ANIMALS

Early detection of contagious disease in animals and its timely control and containment can ameliorate further spread of the disease in endemic areas. Routine and active surveillance either physical and / or clinical may assist in early detection of diseases. It has been observed that there is remarkable change in manifestation of many bacterial disease in wild animals, specifically, in wild elephants. The detection of such change is made possible through routine and systematic conduct of Postmortem examination of wild animals followed by laboratory examination / analysis of necropsy sample at CWH.

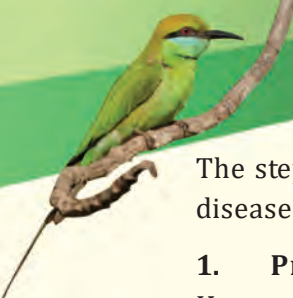
Necropsy samples collected from carcass of wild elephants in Keonjhar Forest Division showing discharge of blood from natural orifices suspected for anthrax found negative for *Bacillus anthracis* and surprisingly found positive for *Clostridium hemolyticum* infection upon RT-PCR Test and Metagenomic Analysis.

Conversely, the necropsy samples received from carcass of elephants in Sambalpur Forest Division without showing any discharge of blood from all natural orifices found positive for *Bacillus anthracis* through conduct of RT-PCR Test and Metagenomic Analysis.

This type of change in manifestation of bacterial disease in wild elephants may require exhaustive study and research for further exploration in this aspect. The research project on 'Application of advance molecular techniques for health and welfare of captive and free-range elephants and large felids of Odisha' aiming to DNA profiling of elephants and large felids, estimation of cortisol and detection of endemic and emerging pathogens through collection of fecal samples being carried out at Centre for Wildlife Health may unravel many aspects of wildlife health which remained hitherto unknown to us.

The health of animals, wild animals and human being are interdependent, which has been established over the years experiencing the past occurrences of multiple Infectious Emerging Disease (IED) across the world having zoonotic importance. Therefore, the value of wildlife health carries much importance from the point of view of One Health Programme (OHP) requiring focused attention.





The steps/ actions taken so far by this organisation on prevention and control of contagious disease of wild animals in our state are listed below.

1. Preventive vaccination: Many contagious diseases of domestic animals such as Haemorrhagic septicemia, Black Quarter, Anthrax, Brucella and Foot and Mouth diseases are found to be transmissible to wild animals. To avert unprecedented occurrence of such diseases in wild animals, vaccination of all susceptible domesticated animals reared in forest fringe areas coming under 3 kms radius areas of sanctuaries and zoos are conducted regularly as per the vaccination schedule.



In the Fy.2022-23, a total of 14,14,073 doses of different vaccines mentioned above were administered to vulnerable domestic animals maintained in forest fringe areas of the state.

Both the staff of Animal Husbandry and Forest Department is actively engaged for the above purpose.

2. Surveillance: The surveillance report received from Animal Disease Research Institute, Cuttack on monthly basis are now being shared immediately to concerned Divisional authorities of Forest, Environment & Climate Change department to make them know about the occurrence of disease outbreak in domestic animals within their jurisdiction to take suitable remedial measures such as preventive vaccination of susceptible domestic animals maintained adjacent to forest area in consultation with the staff of Animal husbandry department.

3. Strengthening of Centre for Wildlife Health (CWH): This Laboratory is now equipped with modern diagnostic instruments, adopted modern technologies and engaged skilled personnel to perform Molecular, Haematobiological, Microbiological, Histopathological and Toxicological studies.

The strengthening of CWH has enabled us to carry out molecular diagnostic works such as DNA Profiling of Wild & Captive elephants and captive leopards, assessment of Cortisol levels of wild elephants and study of Microbial spectrum through Metagenomic analysis of faecal samples.



The Forensic works like determination of species and Sex of wild animals from various biological samples including Bone are now possible in this Laboratory, which will further support the investigation work for detection of wildlife crimes.



During the Fy. 2022-23, a total of 3015 number of different samples have been successfully examined and reports submitted by the CWH.

4. Mobile Veterinary Unit: During the year 2023-24, Mobile Veterinary Units (MVUs) started on pilot basis at prioritized places such as Angul, Rourkela and Sambalpur Forest Divisions along with Nandankanan Zoo for rendering wildlife health care and disease control services. The main objective of induction of MVUs encompasses the functions viz; providing health care services to sick and injured wild animals, attending Post Mortem Examination (PME), conducting disease surveillance and monitoring, attending unprecedented disease out breaks, natural calamities and public emergency, organizing health camps in forest fringe areas ensuring preventive vaccination of domesticated animals, providing some diagnostic services on the spot, creating awareness among locals to reduce human animal conflict, rescuing and rehabilitating wild animals, imparting training to field forest staff and educating locals on Bio-security inter alia performing different departmental activities as and when required. To perform all such activities described above and to achieve the desired purpose, the MVUs will run 25 days in a month. In exigencies, the MVUs can also be deployed in other nearby Forest Division depending upon the requirement.



5. Disinfection of Water bodies: The main purpose of disinfection of available water bodies at 6 months interval within Forest areas is to reduce the incidence of water borne diseases in wild animals specifically after rainy season.


During the Fy 2022-23, 1029 number of water bodies were disinfected. This particular work in the field is jointly carried out by the staff of forest department and RWSS.

6. Examination of Faecal samples of wild elephants: The faecal samples of wild elephants are randomly collected and examined at nearest Veterinary Dispensary to find out the parasites and its load.

It has been observed that there is major prevalence of Strongyloides species in the faecal samples of wild elephants in the state.

7. Training: During the Fy. 2022-23, as many as 200 Veterinarians have been trained on Wildlife Health and Disease Control with special emphasis on Wild Elephant Treatment through successful organisation of ten batches of Training organised at Veterinary Officer's Training Institute, Laxmisagar, Bhubaneswar.





The objective behind such training programme is to familiarise the participants regarding health care, control of diseases and treatment of sick and injured wild elephants.

A training manual has been prepared and distributed among all concerned for its wide use as reference material at times of need.

8. Organisation of Awareness-cum- Animal Health Camps: Awareness-cum- Animal Health Camps were organised during the Fy. 2022-23 in the entire state under the financial assistance from CAMPA fund.

During this year, a total of 400 numbers of Awareness cum Animal Health camps were organised across the state.

In these camps, the domestic animals reared in the vicinity of Forest areas were vaccinated, dewormed and treated for various diseases. Through these camps the local farmers were sensitised about the benefits of preventive vaccination of their livestock wealth at regular interval as per the schedule against all vaccine preventable diseases in order to control the unprecedented occurrences of contagious diseases in the respective forest areas.

9. Treatment of sick /injured Wild animals: The wild animals found sick/injured are treated by local Veterinarians, Forest Department Veterinarians and Experts from College of Veterinary Science and Animal Husbandry after proper tranquilisation /sedation as the case may be. During the year 2022-23, the sick Leopard detected in Nuapada Range under Khariar Forest Division was treated for a continuous period (23 days) from 16.04.2023 (day of capture) to 08.05.2023 (day of death), which is quite remarkable and praiseworthy.

10. Examination of Post mortem report: Sincere attempt was made to examine thoroughly each and every PM report of dead wild animals received from the field during the Fy. 2022-23. Simultaneously, the findings of PM reports were corroborated to the findings of laboratory to assess the actual cause of death.

11. Issue of Advisories: Two advisories were issued vide Memo No.5208 dated 25.05.2021 and Memo No.5440 dated 17.06.2022 for prevention and control of Haemorrhagic septicaemia and Clostridium hemolyticum infections respectively in wild elephants.

12. Publication of Book: One Handbook on Diseases of Animals and Birds was published and distributed among all field staff for creating awareness and knowledge regarding various aspects of commonly occurring diseases of domesticated animals and birds, which are communicable to wild animals and wild birds.

CENTRE FOR WILDLIFE HEALTH – ONE STOP SOLUTION FOR WILDLIFE DISEASE DIAGNOSIS

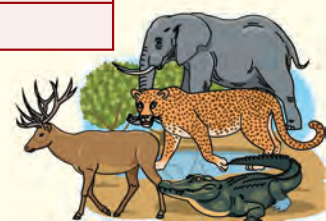
The Centre for Wildlife Health (CWH) in Odisha is always in a continuous improvisation process to put its best efforts to mitigate challenges in the field of wildlife disease diagnosis, treatment, control and forensics. The Centre is capable of examining the bio-samples through hematology, biochemistry, microscopy, microbiology, molecular biology, medical imaging, toxicology, wildlife forensic as well as Research and Development to meet the growing demand as per requirement. The *State of the art* facilities at CWH is considered as a state level hub in disease investigation or pathogen detection for wildlife diseases. Over a period of time, a good number of diagnostic test procedures have been optimized and as such are being used in routine practices.

Disease diagnosis/ Pathogens detection

During a span of one year i.e. 2022 to 2023, a total of 174 bio-samples that includes blood, pus, urine, stool, tissue, swab and Ectoparasites from different wild animals of Nandankan Zoological Park (NZP) were examined at CWH by employing gold standard diagnostics tests. Briefly, the carnivore blood samples were screened against *Trypanosoma*, *Ehrlichia*, *Babesia*, *Cytauxzoon*, Feline Panleukopenia Virus (FPV), Canine Distemper Virus (CDV), Canine Parvo Virus (CPV). Similarly, the herbivore blood samples were screened against *Trypanosoma*, *Theileria*, *Anaplasma*, and *Babesia* spp. Apart from disease diagnosis the CWH has arranged a total 39 visits of health experts from 6 different departments of College of Veterinary Science & Animal Husbandry, OUAT to NZP for health examination of 108 animals those represents 38 different species.

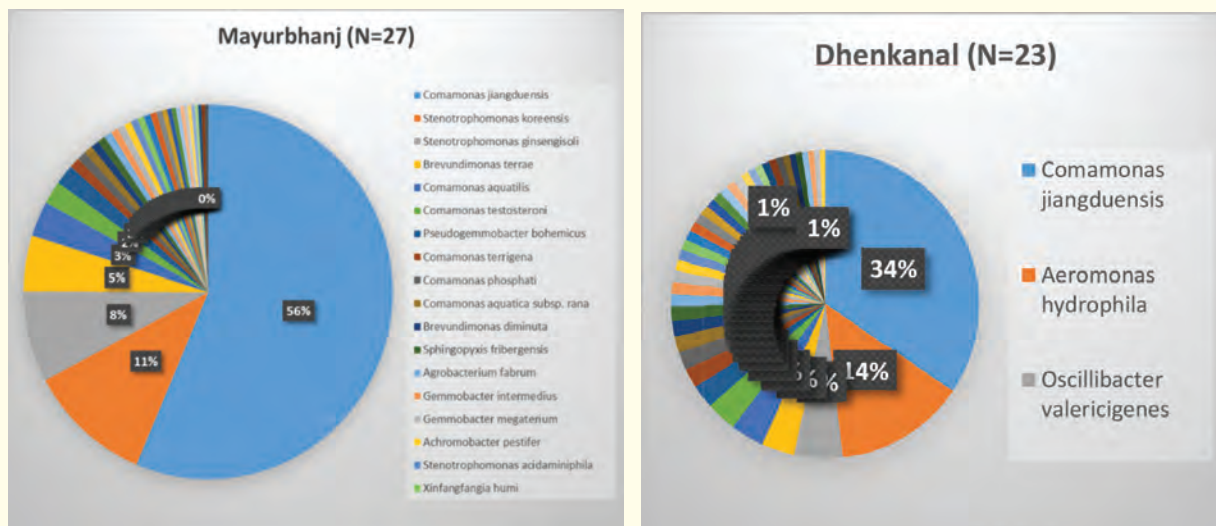
A total of 912 bio-samples from 254 cases of 20 different species of 19 Forest Divisions of Odisha were processed during 2022-23. Again, 108 elephant samples screened against anthrax and EEHV through RT-PCR. Interestingly, EEHV1 was detected in 07 Forest divisions of Odisha that signifies viral distribution in wild elephants. Apart from regular disease diagnosis the CWH has employed advance molecular diagnostic tools i.e. Next Generation Sequencing (NGS) to detect bacterial pathogens in the deceased animals. A total 57 elephants bio-samples were processed for metagenomic analysis and a list of pathogenic bacteria identified so far presented in the table 1.

Bacteria species identified	Forest Divisions of Odisha
<i>Clostridium haemolyticum/ novyi B</i>	Keonjhar, Angul, Kalahandi South, Athmallik, Satkosia, Dhenkanal, Bonai, Balasore, Rourkela, Similipal
<i>Hathwaya limosa</i>	Athmallik, Dhenkanal, Balasore
<i>Clostridium sporogenes</i>	Bonai
<i>Plesiomonas shigelloides</i>	Bamra
<i>Clostridium septicum</i>	Kalahandi & Athgarh
<i>Wohlfahrtiimonas chitiniclastica</i>	Bonai
<i>Ignatzschineria indica</i>	Athmallik, Angul, Cuttack, Dhenkanal, Baripada
<i>Clostridium chauvoei</i>	Kalahandi South
<i>Klebsiella pneumoniae</i>	Deogarh, Balasore
<i>Peptostreptococcus russellii</i>	Bamra





Fecal microbial diversity in free range elephants of Mayurbhanj vis-a-vis Dhenkanal Forest Divisions



Wildlife forensics

Centre for Wildlife Health (CWH) is equipped for forensic study on species identification, sexing of birds from feather sample, authenticity of snake venom and toxicological analysis. CWH has identified different species from wildlife seized meat samples during 2022-23 (Fig 1). CWH has optimized a molecular method for rapid sex determination of elephant from different bio-samples such as trunk wash, saliva, mucus, blood, tissues, bones etc. This method helped concerned authority to solve elephant crime cases (Table 2). During aforementioned time period, a total 23 bio-samples were processed for toxicological analysis from different wild animals.

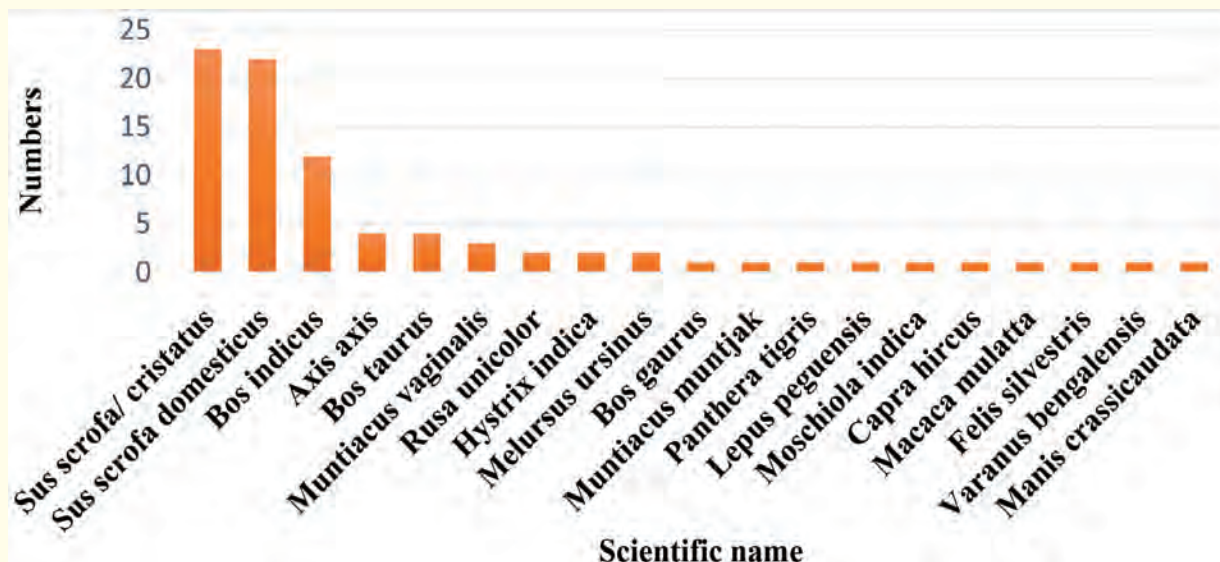


Fig. 1: Species identified by mitochondrial gene during 2022-23



Table 2

SI No	Date	Address	Type of samples	Result
1	06 Jul 22	Balasore	Dry skin	Female
2	06 Jul 22	Athagarh	Bone	Male
3	06 Jul 22	Athagarh	Bone	Male
4	06 Jul 22	Athagarh	Bone marrow	Male
5	06 Jul 22	Athagarh	Bone marrow	Female
6	13 Jul 22	Boudh	Unidentified tissue	Female
7	06 Jul 22	Athagarh	Bone	Male
8	12 Jul 22	Angul	Bone marrow	Female
9	06 Jul 22	Athagarh	Bone	Male
10	12 Jul 22	Angul	Bone	Male
11	06 Jul 22	Keonjhar	Ivory	Male
12	30 Jul 22	Sambalpur	Burnt Bone	Male
13	21 Oct 22	Angul	Bone	Male
14	21 Oct 22	Angul	Bone	Male
15	11 Dec 22	Mayurbhanj	Bone	Male
16	29 Dec 22	Dhenkanal	Rib bone	Female
17	22 Dec 22	Keonjhar	Un identified tissue	Male
18	12 Jan 23	Angul	Stools and tissue	Male
19	23 Jan 23	Mayurbhanj	Tissue	Male
20	02 Feb 23	Mayurbhanj	Ivory	Male

Ongoing research and development activities: Application of advanced molecular techniques for health and welfare of captive and free-range elephants and large felids of Odisha is being continued since 2021-22. The details of work are listed below.

DNA Profiling: A method targeting mitochondrial D-loop was optimized for genotyping individual elephant of different Forest Divisions of Odisha. The hypervariable mitochondrial D-loop region has been used for genotyping and phylogenetic studies in wild animals including elephant. A total of 157 bio-samples (Tissue- 150 and Faeces- 7) were collected/ received from 14 forest divisions and Nandankanan Zoological Park. Of which, 48 samples were processed successfully for D- loop amplification (Fig 2). Based on these sequences a phylogenetic analysis was conducted to explore genetic lineages of wild elephants between different forest divisions of Odisha (Fig. 3).



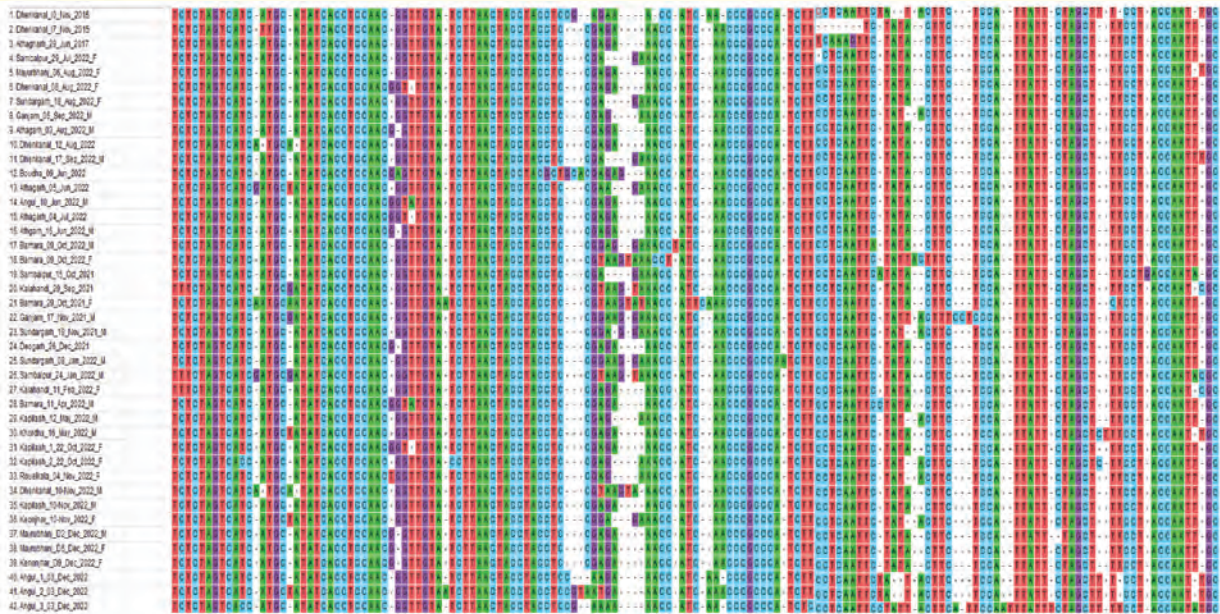


Fig.2: Transition, transversion and gap mutation identified in mitochondrial D-loop in the elephants of Odisha

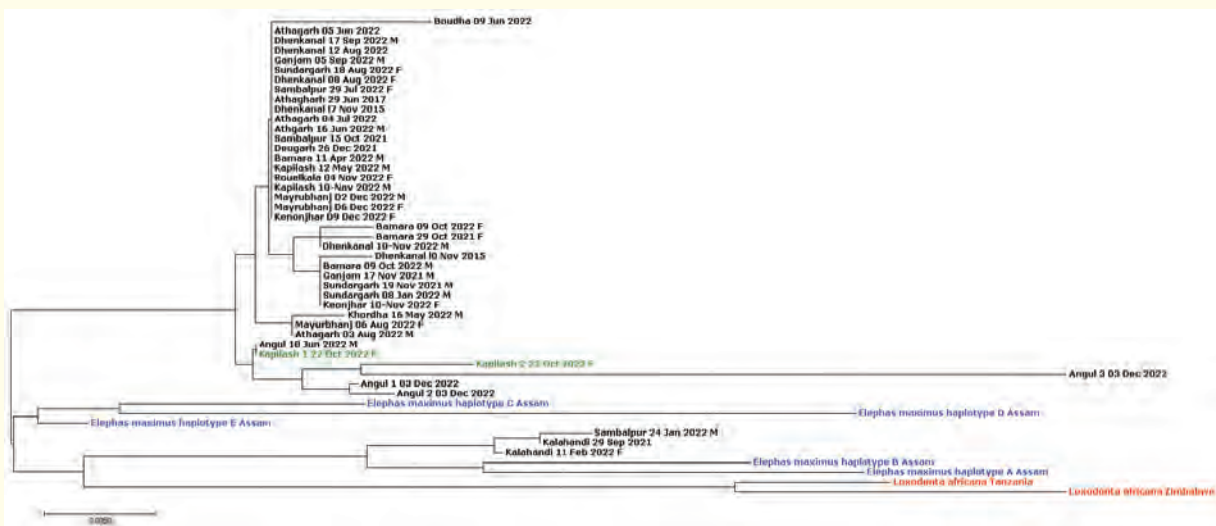


Fig.3: Phylogenetic relationship of elephants of Odisha based on D-loop analysis

Success story: A request letter was received from Forest Range Officer, Kapilash Range on 22.10.2022 to establish the relationship between two blood samples, i.e. whether the sample belongs to mother and calf. Based on the mitochondrial DNA phylogenetic analysis, it was revealed that the blood samples collected from two different elephants are not genetically related as mother and calf.

Apart from partial mitochondrial DNA analysis, the CWH has sequenced complete mitochondrial genome of a wild Elephant (Fig 4). It is worth to mention here that; the current elephant mitochondrial genome (Accession no. OP575307) is the second of its kind for complete genome sequence available in the NCBI data base that represent Indian elephant. It will help us to establish their genetic lineage/identity once completed genome sequence is available for a greater number of samples.



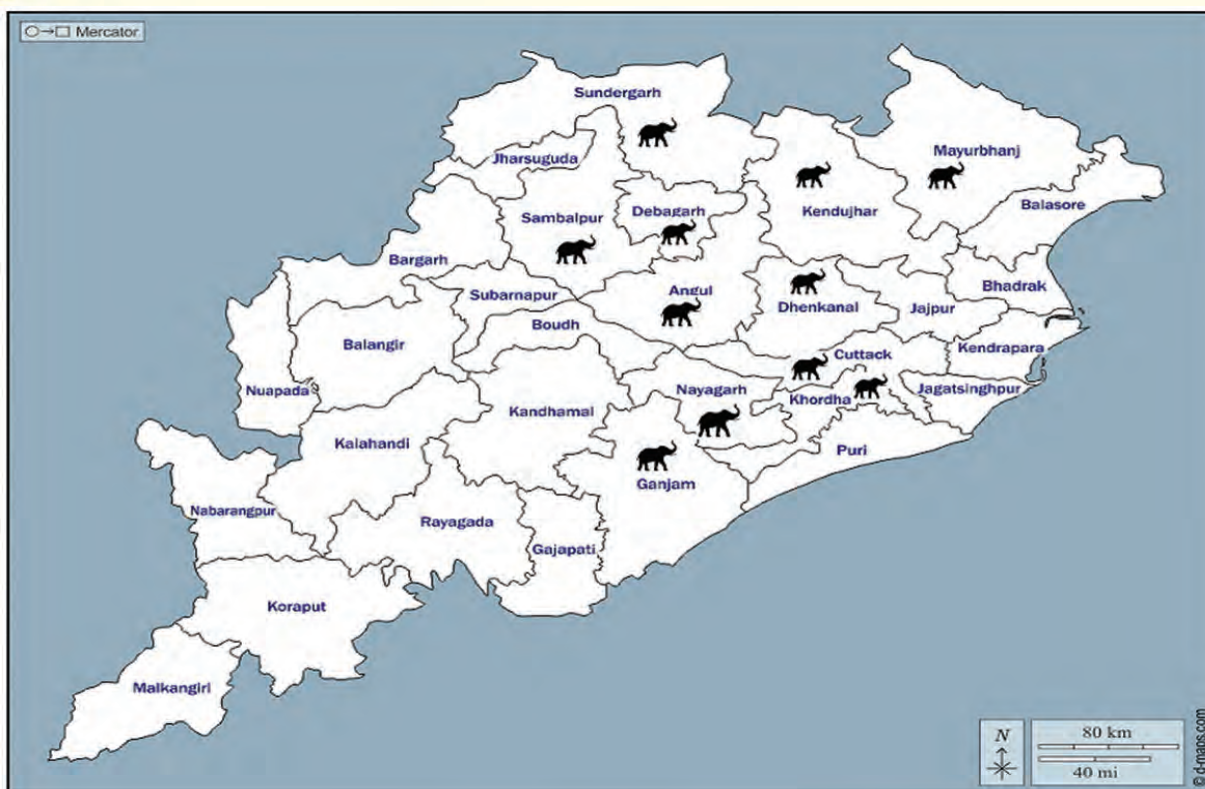


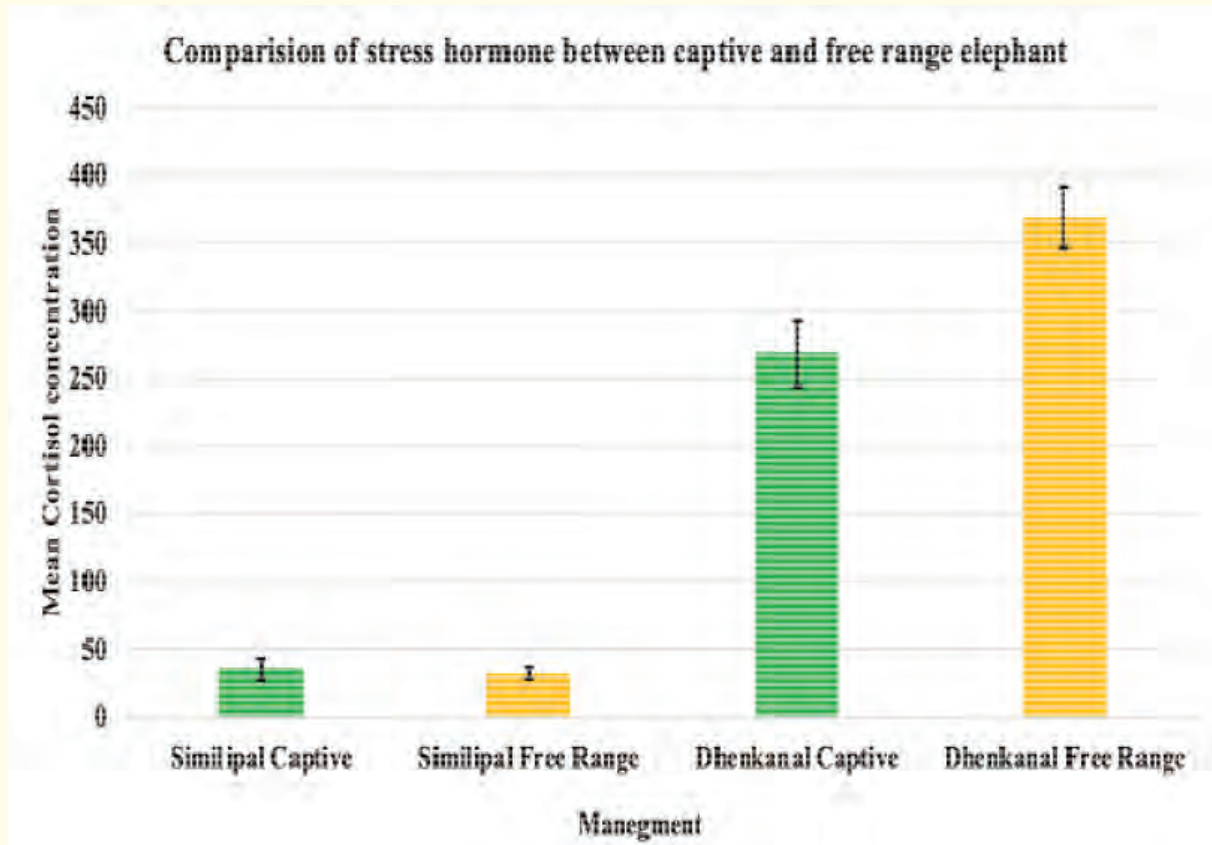
Fig.5: Geographical distribution of EHV1 in Odisha

Elephant Stress Hormone (Cortisol) Estimation: A potential indicator of animal welfare is the absence of stress. Rapid and reliable measures of stress hormones and qualitative behavioural observations would help to correlate various physiological functions as well. Fecal cortisol concentration of elephant was analysed using the available commercial kit. A total of 100 fecal samples were collected from free range (88) and captive (12) elephants. Free range samples were collected from five forest divisions that includes Dhenkanal Forest Division (23), Similipal National Park Tiger Reserve (22), Keonjhar Forest Division (24), Bonai Forest Division (9) and Bamra Wildlife Division (10) for Cortisol assessment. Likewise, Captive elephant samples were collected 4 each from Nandankanan Zoological Park, Similipal National Park Tiger Reserve and Kapilash Zoo for analysis. It is interesting to note that the fecal cortisol level is significantly higher in free range elephants of Dhenkanal Forest Division than the captive stock. Such difference was not observed in Similpal. From this observation, it could be inferred that the Similpal elephants are enjoying good environment without much stress.



Comparison of fecal cortisol level in captive and free range elephants of Odisha

Location	Management	No. of fecal samples processed	No. of fecal samples processed
Dhenkanal	Captive	4	268.8±24.6 ^a
	Free Range	23	369.2±22.7 ^b
Similipal	Captive	4	35.1±7.3
	Free Range	22	32.2±3.4



Future plan: Animal cell culture, virus isolation, elephant DNA profiling data base creation, multiplexing, reliable diagnostic kits (rapid) based on Immune-chromatography will be adopted in future for more accurate and sensitive method to detect pathogens.

CWH work hours stretched from 8:00 to 18:00 hrs. However, during emergency, it functions 24X7. CWH is available with the address: Project Coordinator, Centre for Wildlife Health, College of Veterinary Science & Animal Husbandry, Odisha University of Agriculture and Technology, Bhubaneswar-751003 (India), Phone: 0674-2397146, Email: wildlifehealthodisha@gmail.com





STANDARD OPERATING PROCEDURE (SOP) FOR CONDUCTING POST MORTEM EXAMINATION OF WILD ANIMALS INCLUDING WILD ELEPHANTS

1. In case of detection of death of wild animals, the field staff shall intimate to the immediate higher officials including Forester and Range Officer of that area, who in turn will be intimating to the concerned Divisional Forest Officer (DFO) and Regional Conservator of Forests. The DFO will immediately intimate to the CCF (WL) & PCCF (WL) & CWLW, Odisha.
2. The Range Officer will make written request to the Chief District Veterinary Officer/ Sub-divisional Veterinary Officer/Block Veterinary Officer for conducting post mortem examination.
3. There should not be any unnecessary delay in conducting post mortem examination & it should be done preferably during day light to avail better visibility for proper examination of the carcass.
4. For careful and judicious examination of the carcass of wild elephants at least three Veterinarians shall be attending the post mortem examination.
5. The premises of post mortem examination shall be covered with cloth materials to restrict / avoid unnecessary entry of unauthorized persons to the site of PM examination.
6. The Honorary Wildlife Warden or Former Wildlife Warden of the division along with Wildlife Activist / Representative of an NGO working for wildlife conservation to be selected by the RCCF / DFO may attend the PM examination for transparency.
7. The Veterinarians while attending the PME should cross check and tally the particulars/ identification marks on the carcass as stated by the forest officials in their requisition letter for confirmation.
8. If required, additional particulars for identification of carcass may be noted in the post mortem report.
9. The handbook **“Techniques and Procedures for post mortem of elephants”** by Dr. Jacob V. Cheeran and Dr. N. Diwakaran Nair was issued in 2003 should be referred by Veterinarians for conducting PM examination of elephants.
10. The time of actual death of wild animal is to be assessed by observing the presence or absence of rigor mortis. If the carcass is completely putrefied emitting obnoxious smell, the death may have occurred more than 30 Hours earlier from the time of necropsy.
11. The carcass should be examined thoroughly for presence of any injuries, cut marks, burn injuries along with secretion & excretion. In case of bleeding from natural orifices and there is detection of un-clotted blood in the discharge, peripheral blood may be collected from the ear vein and should be examined by PCR test to rule out the possibility of anthrax before opening the carcass. After receiving the laboratory report necessary action as deemed fit may be taken by the Veterinarians. If anthrax as cause of death is confirmed, in such cases the carcass should not be opened and disposed of by burning following the guidelines of Govt. of India in this regard.

12. In case of soiling/mud cover on the carcass, it should be properly cleaned by water to have proper visibility to examine the injuries on the body of the carcass.
13. The post mortem changes such as bloat, discoloration, softening of tissue or organs, ruptures of the organs and displacement of organs, which usually occurs due to bacterial decomposition, may not be confused as lesions or changes in the internal organs of the carcass.
14. Use of Metal detector in each case of PME of wild animals is highly essential for detection of any metallic projectile/foreign body inside the body of carcass and such screening should be done before, during and after opening of the carcass. Upon finding any metallic projectile/sharp objects should be examined in forensic laboratory for its confirmation.
15. Both ante-mortem and post mortem samples for forensic examination shall be refereed immediately (within 24 hours) to any referral laboratory including Centre for Wildlife Health.
16. Appropriate morbid materials shall be scientifically collected in sterile containers, preserved in suitable preservatives and dispatched under cold chain to the referral laboratories for investigation of the disease. The samples should reach along with a preliminary report on findings of PME within 24 Hours of collection to the laboratory without any deviation.
17. In case of putrefied/decomposed carcass where there is least possibility of collection of morbid samples, in such cases samples from bone marrow and brain can be collected for examination in the laboratory to assess any microbial infection as cause of death.
18. Post mortem examination should be thorough and completed with still and videographic documentation starting from the beginning till the completion of the PME.
19. The PM report should be written in **prescribed format** describing the details about the lesions/findings in different parts/organs of the carcass with a clear mention about the cause of death.
20. The PM report should be submitted to the DFO within 24 to 48 Hours of PME without waiting for the laboratory finding report. After receipt of the laboratory examination report necessary vetting will be made by comparing to that of PM lesions and tentative cause of death as mentioned in the PM report by experts at Wildlife Headquarter.
21. Before disposal of the carcass, the recumbent portion of the body may be turned up by JCB machine for final examination after proper cleaning the body surface for detection of any external injuries such as cut marks, gunshot and arrow hit wound.
22. The final report on death of any schedule wild animal shall be submitted to the office of the PCCF (Wildlife) & CWLW, Odisha within one month of case detection to avoid pendency of cases at division level without any conclusion.



CHAPTER VII

DIRECT FROM THE FIELD

SHOW OF BRAVERY

Late Bimal Kumar Jena, Forest Guard, Similipal Tiger Reserve

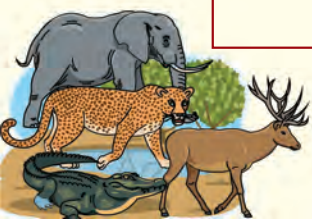


On the evening of dt. 22/05/2023 Sri Bimal Kumar Jena, FG, went for patrolling in Kalasiduba area along with two Protection Assistants. On the way they intercepted 8-10 poachers with dead wild animals. On seeing the forest staffs the poachers immediately fled from the spot leaving behind the dead animals. By the time reinforcement could reach, the poachers returned back & opened gun fire at the staff. The Protection Assistants immediately ran from the spot to save their lives, but Sh. Jena, stood his ground. He succumbed to death due the fatal injury on his chest.

Late Mathy Hansdah, Forester, Similipal Tiger Reserve



On the night of dt.17.06.2023 around at about 2.00AM staff camping at Gamchajharan APC heard the gun shot sound near the Camp. Sh. Mathy Hansdah, Forester, I/c- UBK WL Range, along with Sh. Himansu Sekhar Sethy, FG (STPF) and 4 Protection Assistants moved towards the spot & ambushed. At that time, they intercepted six poachers on the footpath. While attempting to nab the poachers, they fired at staff and Sh. Hansdah was hit by bullets on his chest. In spite of being hit by gun shot, Sri Hansdah fired around five rounds at the poachers from his revolver. After this he became serious and fell on the ground. Immediately he was shifted to Hospital and at the hospital he succumbed to death while under treatment by doctors.



MELANISTIC LEOPARD IN MAHANADI WILDLIFE DIVISION

Mahanadi wildlife Division, as a part of Satkosia Tiger Reserve has taken a major role in protection and conservation of wild life. A wide range of wild animals are inhabiting in its both Baisipalli Sanctuary and Southern part of Satkosia Wildlife Sanctuary. In the recent past, photographs of rare Melanistic leopard are captured in Camera trap. The movement pattern is seen in both the sanctuary coming under this division. The melanistic leopard has excess black pigments but their typical rosette shape is also present on its body.

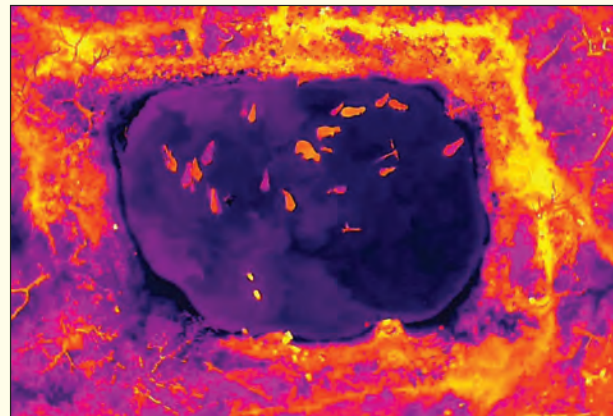
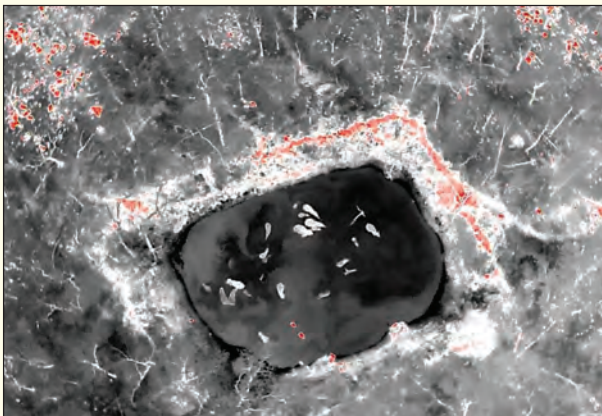


Melanistic Leopard in Mahanadi Wildlife Division

USE OF TECHNOLOGY

a) IR-Drone camera

Monitoring the movement of elephant in dense forest is strenuous. Maintaining the safest distance and counting exact number of elephants present in a herd and locating lone tusked is a challenging task in the dense forest. Elephants' preference for dense forest habitat limits traditional counting methods such as direct sighting or visual identification. So, by using advance technology like Drone camera, the exact population of a herd can be counted and the monitoring of elephant is also possible. In one case in Mahanadi Wildlife Division, the ambiguity regarding exact number of elephants present in a specific herd could be confirmed as 24 no of elephants using IR Drone camera and reported accordingly.





b) Camera Trap

With intensive patrolling and control monitoring, the wild animal's number is gradually increasing in Mahanadi wildlife division. A wide variety of wild animals are captured in the camera trap that installed inside the forest area. In most of the photographs, animals are moving with their offspring which indicates the thriving population of wild animals in Mahanadi wildlife Division. By installing camera traps inside the forest area, the protection works as well as the presence of different wild animals with their abundance is properly monitored.



Indian civet moving around with their offsprings



Bison & Leopards are in playing mood





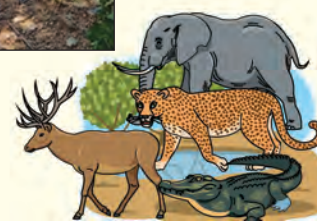
Wild animals captured in day time indicates increasing protection activities

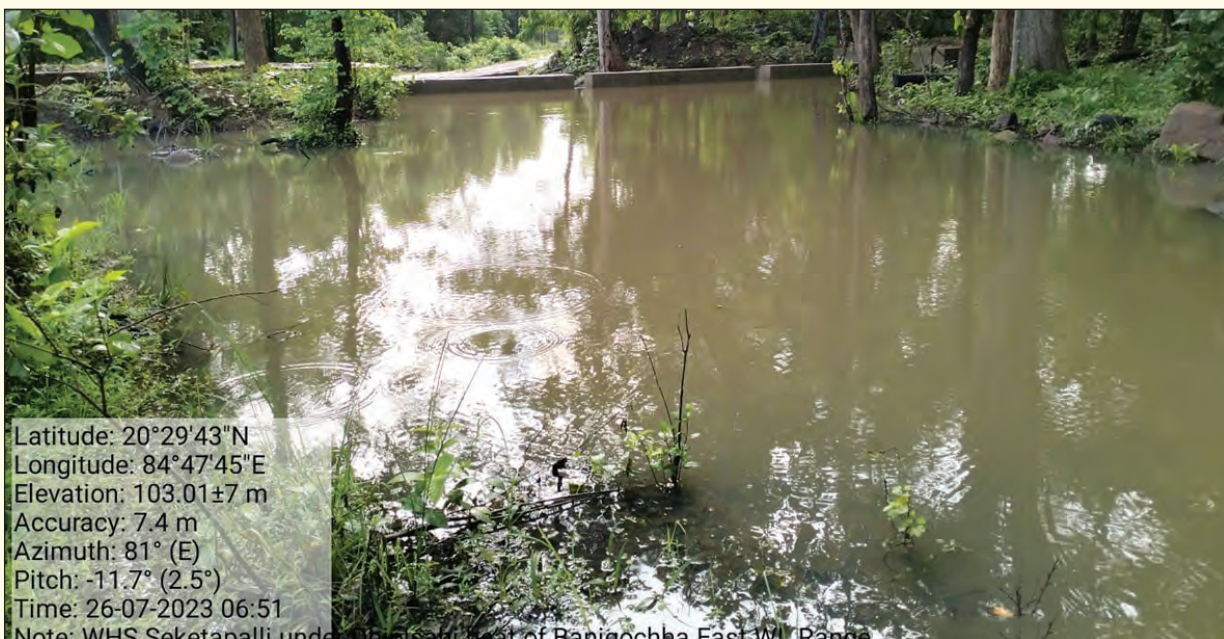
HABITAT DEVELOPMENT LIKE CREATION OF MEADOW AND RENOVATION AND CREATION OF WATER BODY

There is a good no of herbivores present in Mahanadi wildlife Division. Meadow attracts a multitude of wildlife and provide food and fodder to herbivores. Here 13.5 ha of meadow has been created in Padmatola reserve forest. The grass species raised in the meadow is Hybrid Napier & local grass which mostly preferred by the herbivores. That meadow is now used by herbivores like barking deer, spotted deer, Indian hare, sambar, bison etc.



There are also 57 no of water bodies inside the forest area to meet the water requirement of wildlife. Those water bodies are filled with water even in the hot summer season & frequently used by the elephants and other wildlife.





Crime Control

An inter divisional smuggling racket was busted up in which three persons were arrested while trading pangolin scale, leopard paws and spotted deer skin in Daspalla area. Through backward and forward linkage, two more persons were arrested and forwarded to court. The final PR was also submitted with in the time held.

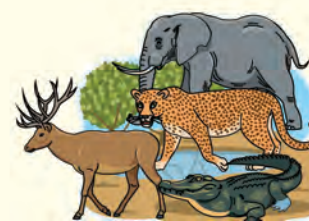


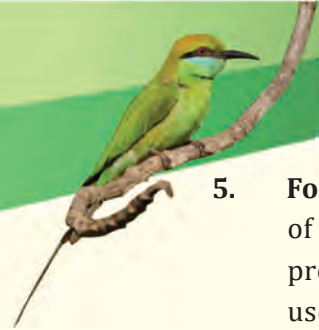
DIFFERENT WILDLIFE ACTIVITIES CONDUCTED IN SIMILIPAL NORTH WILDLIFE DIVISION, JASHIPUR.



Similipal North WL Division is having an area of 1059.03 Sq km. which is the part of Similipal WL Sanctuary and Similipal Tiger Reserve. It is having 8 Ranges, 31 Sections and 70 Beats with a headquarter at Jashipur. The various wildlife activities carried out in this division are as follows:

- 1. Protection activities:** Regular patrolling is being carried in both day and night throughout the division. Intensive patrolling paired with reliable intelligence in sensitive areas are also done with Inter-beat, Inter-range, Inter-Divisional coordination. Combing operation with proper planning and strategies are carried out. Patrolling with the help of Police staff has also been taken up in vulnerable areas. Bike patrolling, Vehicle patrolling and Foot patrolling in every footpath and vulnerable areas is being ensured. Camera traps are also installed in strategic location to see, identify and track down the intruders along with wildlife monitoring. Adequate VHF base stations and PP sets are being provided to the frontline staff along with torches, raincoats, shoes, leech guards, lathis, Arms etc. for effective patrolling and easy passing of message. Cases have been booked under the provisions of Wildlife Protection Act and final PRs are ensured to be submitted within time.
- 2. Awareness activities:** Various awareness programs are being conducted in Similipal North WL Division involving local villagers, SHG members, EDC/ETG members, PRI members, Dehuris etc. Sensitization programs are also carried out with the help of NGOs such as Ambika Trust in recent times who have distributed Blankets to tribal community along with sensitization of people. Awareness activities like Nature education to school children, Nature walk-cum-Swachh Bharat Abhiyan of SHG members, Bird watching programs, Flagmarches, Junior Ranger concept etc. are regularly taken up in this division. Many academic competitions such as debate, painting, Cycling, mini marathons, quiz etc. are also conducted for creating awareness programs. SimilipalParikramaRath is also being used in Similipal and fringe villages with display of Wildlife videos to local people in local language to make them understand the importance of Forest & Wildlife. Talks regarding Voluntary relocation of villages are being taken up continuously to motivate people.
- 3. Habitat Management:** The habitats of Wildlife are taken care properly and timely. Interventions like meadow management, Salt lick management, water body sanitization, cattle immunization, creation and renovation of waterbodies etc. are taken up. Use of sprinkler system at Chahala to manage the meadow is being taken up and it shows good result by the emergence of fresh grass throughout the year.
- 4. Forest Road maintenance:** The forest roads are being maintained throughout the year along with bush cutting and drainage line treatment. Intermediate causeways and culverts are also created and old structures are repaired regularly for easy movement. Wooden bridges over nalas are also renovated timely.





5. **Forest fire management:** Creation of fire lines is being done before the commencement of fire season and maintenance is done till the fire season is over. Mass awareness programs for forest fire is being taken up in all the fringe and Similipal villages by the use of Street play, Tribal dance, Sports activities, Distribution of sports items and Daris, incentives to informers etc. Use of vehicle, Motorbikes etc. are taken up for easy transport and early detection forest fire. Use of modern GIS technology and VHF network to detect fire and passing of message with exact geo-coordinates to the field is being ensured. Fire control room formation, formation of machans and servicing of Fire blowers, purchase of fire fighting equipment, first aid, dry ration is done before the commencement of fire season. Training and mock drills to frontline staff, fire squad, and EDC members are carried out before the fire season. Interdepartmental coordination is also taken up and help of line departments such as Fire service, PRI members etc. are ensured. The planning and execution of the Fire management is being carried out as per the resource mapping done at the Division level as well as at the district level as per the District Fire Action Plan.
6. **Census and Phase IV monitoring:** The census programs such as Crocodile census in Similipal River System and Ramtirtha Crocodile Breeding Project is being carried out on time. Bird census also carried out throughout the Division on the prescribed date. Apart from these, regular pre-monsoon and post-monsoon Phase IV monitoring is being carried out by the staff on time. Regular checking of the camera trap data is done by the Tiger cell situated at Field Director Office for analysis of animal movement and behavioral pattern. A thermal drone is used to monitor the movement of Wildlife which can also be used to detect forest fire in far away places.
7. **Training programs:** The ETG members of all the Nature camps located in Similipal North WL Division are provided with refresher course training by the experts from IIHM, Bhubaneswar. The Nature guides are also trained in house by trainers from Pugdundee safari, Maharashtra for enhancing the skills of nature guiding. Study tours of Forest Guards, Foresters, Range Officers, ACFs, OAS probationers, IFS, IAS Probationers etc. are being taken up in this division. They have been highlighted about different challenges and significance of Similipal and its landscape.
8. **Ecotourism activities:** Similipal North WL Division is having 5 Nature camps such as Barehipani, Jamuani, Gurguria, Kumari and Ramtirtha out of which Ramtirtha and Jamuani nature camps are situated outside of the Sanctuary. The Nature camp is being managed by concerned EDC and ETG members who were trained in guest & hospitality management are taking care of the nature camps throughout the year. More than 2 Crore revenue was generated from November 2022 to 15th July 2023 from all the nature camps. The tourists are provided with Trekking, Cycling, Adventure sports, indoor sports, traditional cultural programs and many more facilities which attract them to come to Similipal and enjoy its culture and biodiversity. For day tourism, the official website of Similipal is being published for easy booking of entry permit along with lunch facility at EDC run day canteen at Barehipani. EDC run refreshment centers along with toilet and drinking water facility is also provided to tourists.





Bird watching program for local people and enthusiasts Night patrolling with Police in sensitive areas



Refresher course to ETG members by trainers from IIHM



Crocodile census in Similipal



Fire line creation

9. An exclusive joint Task Force has been constitute vide notification No.16064 dated 01.08.2023 for protection of Similipal Landscape under the chairmanship of the Field Director, STR, it comprises of 100 nos. of armed constabularies besides our 90 of forest personnel.
10. It has been decided by Govt to have one Gram Sabha every year in Mayurbhanj District, on Similipal to create awareness and seek people support for its protection.





SIGHTING OF GREEN SEA TURTLE (*Chelonia mydas*) IN CHILIKA WILDLIFE DIVISION

Common Name: Green sea turtle

Scientific Classification

Kingdom: Animalia

Phylum: Chordata

Class: Reptilia

Order: Testudines

Suborder: Cryptodira

Superfamily: Cheloniioidea

Family: Cheloniidae

Subfamily: Cheloniinae

Genus: *Chelonia*

Species: *C. mydas*



Conservation status: *Endangered (IUCN) CITES Appendix I*

Green sea turtle (*Chelonia mydas*): Length -1'-8", Width -1'-5"

One Green sea turtle (*Chelonia mydas*) was rescued from Chilika shore near Gambhari Village Satapada WL Range on dt 23.06.2023 at about 11.00 AM & Released near at Rajahans sea beach side on same date.



TREATMENT OF A CLINICAL CASE OF ACIDOSIS IN A SUB-ADULT TUSKER ELEPHANT IN HINDOL RANGE OF DHENKANAL FOREST DIVISION

On 18th July 2023, Khajurikata Section Forester, Hindol range, Dhenkanal Forest Division, informed about a lone tusker, showing signs of slow movement, and spending most of its time inside a water pool and taking only date palms as feed, which was available in plenty over the particular spot. Immediately, the DFO, informed the matter to Kapilash Zoo Doctor regarding the matter for assessing the tusker for the abnormal clinical signs of the elephant.

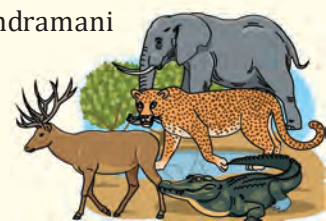
Initial treatment was done by Dr. Ashit Chakraborty, Zoo Veterinary Doctor, Kapilash Zoo, who found some signs of Lameness, sluggish movement. The appetite, Urination and defecation was found to be apparently normal. A combination of Anti-inflammatory, Anti-analgesic, Steroid, Anti-histamines, Calcium and Neuro-vitamins were administered to the elephant in the desired dose without tranquilization. The tusker was left for observation and the forester was instructed to track and update about the health condition on a regular basis.




Initial condition of tusker on 18th July

On the following day, the elephant movement improved a bit, but inflammation of the fore-limbs continued with sluggish movement. The tusker crossed the section boundary and moved to Angul Division, where similar sets of drug administration was done, but unfortunately, desired satisfactory results were not found and the condition deteriorated. Based on the situation, it was decided, it needs to be tranquilized to have a proper observation of the elephant, so that a planned treatment schedule can be made, which was suggested by DFO Angul. Meanwhile, the elephant again returned to Khajurikata Section, Hindol range on 4th August, 2023.

Clinical Signs observed in the tusker was Inflammation of both the fore limbs, higher temperature, serous discharge from the eyes were being observed, abscess were observed on both the sides of the hip region but no other external injuries were observed on the body of the elephant. Initial Diagnosis suggested Lactic Acidosis over the muscle tissues, resulting in inflammation and lameness which was also suggested by Sakosia vet Dr Kishore and Dr Indramani



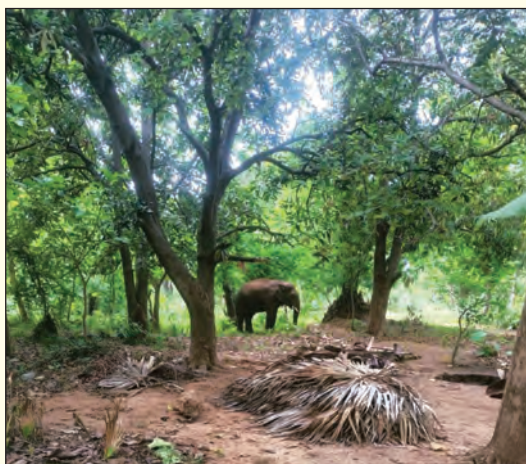


Nath of CWH due to over consumption of *Borassus flabellifer*, commonly known as tala or tal palm. Initial attempts to treat the tusker with medicines in ripe bananas didn't result in much progress, hence it was felt to tranquilise and treat it.

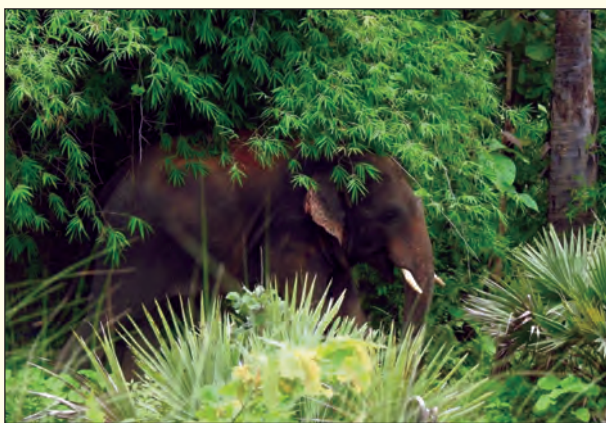
Tranquillization exercise

After getting the necessary permission of tranquilization from PCCF, WL, and intimation to RCCF Angul, it was decided to tranquilize the elephant on 6th August, 2023. Teams from Hindol Range, Rescue Team from Kapilash, seasoned elephant handlers Dhushyant and Raju from Chandaka Division and Nandankanan and staff from Angul Division converged at the location to start the operation. Over 40 staff and squad from Dhenkanal and Angul Divisions participated in the exercise.

The tusker was located the Banarpal-Hondol Road near Hindol-Bantala border. On tranquilizing day, the elephant was found near a Tala (*Borassus flabellifer*) growth area. After discussion and planning, all staff were deployed around the area and Kapilash vet started the darting exercise around noon. A safety perimeter was setup around the area and tranquilization exercise was started. The tusker was successfully sedated using anesthetic (Xylazine-Ketamine) combination in the desired dose and the elephant was completely sedated 30 mins after it was darted.



Sluggish movement for extended period was observed



Moments before tranquilization (left) and Intravenous drug administration post tranquilization (right)





Padinspection to check for injuries

Sodium bicarbonate infusion was given intravenously as an alkalizer, along with Antibiotic, Anti-inflammatory, Anti-histamines and vitamins. Blood, Pus sample, Fecal sample were being collected to know about the overall parameters from the samples to get a more detailed report, about the health condition of the elephant.

Post treatment

After the treatment, reversal (Yohimbine) was given to reverse the elephant from its sedated condition. 5 minutes after giving the reversal drug, the elephant moved away from the spot.



Minutes after reversal from sedated condition

Regular tracking suggested that the treatment gave satisfactory results, as the inflammation of the forelimbs reduced, no visible signs of lameness were observed, and the movement pattern of the elephant was found to be normal. The tusker gradually recovered and its natural movement across the Dhenkanal-Angul border continued and reports of the tusker raiding paddy fields and gradually improvement in pace was reported from area.

The entire exercise was successful due to continuous efforts and dedication of Staff and squad of Hindol Range of Dhenkanal Division, Kapilash Rescue Centre, Kapilash Vet Dr Asith, Satkosia Vet Dr Kishore, Dr Indramani Nath of CWH, Raju and Dushyant from Nandankanan and Chandaka Divisions and staff/squad of Angul Division.





Treated tusker two weeks after release



MONITORING OF NEWBORN ELEPHANT CALF AT KOIDA-BARSUAN RANGE, BONAI FOREST DIVISION (2ND SEPTEMBER – 5TH SEPTEMBER 2023)



1. Background

On September 1st, 2023, elephant trackers in the Koida area sighted a solitary female elephant. The female elephant was part of a herd of 19 elephants moving across the Koida and Barsuan ranges. On the previous day, August 31st, 2023, the female elephant detached herself from the herd.

Around five in the morning, the elephant trackers located a mother and her newborn calf in Koidabeat, close to Bhawanipahad RF, where it was noticed that they were both in a shallow pool of water. The mother and the calf returned to the Bhawanipahad RF after the calf displayed play behavior in the waterbody. Locals reported hearing the elephant vocalizing at 4AM, hence it is presumed that the calf was born at that time on September 2nd, 2023.



First photos of calf and mother recorded in early morning hours of 2nd Sep 2023, Koida Beat. The calf was seen sucking its mother teats for milk

Calf and mother returning back to Forest, Bhawanipahad RF



The parent herd at Bhawanipahad RF, Koida beat, Koida Range





2. Monitoring of the elephant calf

Day 1 - 2nd September, 2023

The team, which included RFO Koida Mr. Gowtham Pradhan, Dy RO Mr. Durga Charan Mishra, FG Miss Madhusmita Pradhan and Biologist Mr. Digvijaya Pattnaik, was monitoring the herd movement close to Bhawanipahad RF on the evening of September, 2. The members noticed that the mother and calf had joined the herd. 19 elephants left the Bhawanipahad RF area and started moving towards Kalt beats of the Koida range. At the Koira bypass road, the cars were stopped to allow the elephants to cross the street safely. The herd returned to the Bhawanipahad RF of the Koida Range in the early morning of the September 3rd.

Day 2 - 3rd September, 2023

The herd remained in Bhawanipahad RF the entire day. The herd split into two groups on September 3rd in the evening. One group remained in the Bhawanipahad RF, while a second group, which included a female and sub adult tuskers, left the RF and for aged in the Koida and Kalta beats of the Koida range. The age, sex, and gender make up of the two groups could not be identified because of the rain and darkness.

Day 3 - 4th September, 2023

The herd of 19 elephants was traveling towards Kula beat of the Barsuan Range when the elephant monitoring team received report around one in the morning that the second group that had stayed in Bhawanipahad RF had united with the other group. A drone was launched at 7 AM to monitor the herd. At Kula beat of Barsuan Range, the herd was discovered in a little scrubland close to a sponge iron mill. The newly born calf was seen among the herd, which was always watched over by two females. The herd included 7 calves ranging in age from 3 days to 4 years, 8 adult females, and 4 sub adult tuskers. It was observed that the newborn calf was in good health. It was observed interacting with other herd members, consuming milk from its mother, and roaming about with them. The calf's age could not be ascertained because of its young age.



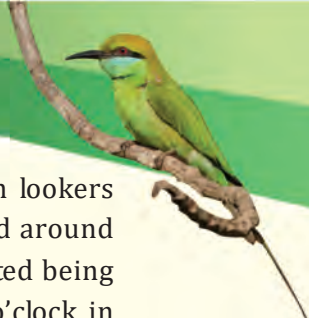
Monitoring of herd and calf through drone at Koida, Barsuan Border



First footages of Newborn calf recorded through drone at Kula beat, Barsuan range, 4th Sep'2023.



The herd spent the entire day in the scrubland, where it was encircled by on lookers who were hoping to catch a sight of the elephants. The herd was still in the scrubland around 4 o'clock in the afternoon while being fully encircled by humans. Elephants were spotted being teased by certain people of the crowd, which was distressing them. Around eight o'clock in the evening, the herd began to move in the direction of the Kula beat of the Barsuan range's forest.



The landscape where the herd stayed for whole day on 4th Sept, Kula beat, Barsuan Range



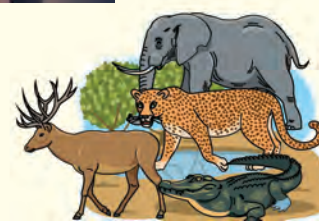
Subadult tuskers in the herd

3. Conclusions and Observations

- The elephant calf's mother seems to be a young female aged between 15-20 years.
- The calf was constantly guarded by two females in particular who were hiding it under their bodies.
- Another juvenile calf of around 1-2 month age was observed in the same group.
- The calf was observed to be in good health and feeding, doing locomotion perfectly.



Eager public observing elephant





IMPLEMENTATION OF “JANA SURAKSHYA GAJA RAKSHYA” SCHEME AT VILLAGE ERGEDA OF PANPOSH RANGE OF ROURKELA FOREST DIVISION

Introduction

The implementation of **Jana Surakshya Gaja Rakshya Scheme** in Odisha has been a significant success story in the field of agriculture, wildlife conservation vis a vis reducing Man-Elephant Conflict. One notable example of its success can be seen in the Rourkela Forest Division of Odisha, where the government and various organizations have worked together to implement solar fencing to mitigate human-wildlife conflicts and protect crops.

Location

Total 04 RKM of Solar fencing erected in Ergeda Village, Panposh Range, Rourkela Forest Division, Odisha, India implemented in the year 2022-23.

Background

Rourkela Forest Division is located in the picturesque District of Sundargarh, located on the North Western part of Odisha, has a geographical area of 2777 Sq KM with forest cover of 1083 Sq KM and agriculture is the backbone of the economy which is frequented by animals such as Elephant, Leopard, Spotted Deer, Hyena, Jackel and fox etc. However, for years, farmers of this regions have struggled with crop damage caused by wildlife, particularly elephants, and wild boars. Additionally, they faced security issues due to a lack of effective fencing. To combat these issues, the Dept. of Forest, Environment and Climate Change, Government of Odisha initiated a pioneering project **Jana Surakshya Gaja Rakshya Scheme** to implement solar fencing, a sustainable, non-invasive and cost-effective solution that has yielded remarkable success in protecting both Humans and Animals.

Implementation

To address this issue, the Forest Department, Govt of Odisha in collaboration with local communities initiated the implementation of solar fencing in vulnerable areas. The project aimed to create a sustainable solution that would protect crops, prevent human-wildlife conflicts and restoration of trust on Forest Department.

Key Features of the Solar Fencing Project

- 1. Solar-Powered Electric Fencing:** Solar panels measuring 75 watts per KM of solar fencing were installed to power 05 rows electric fencing systems that encircled farmlands bordering Forest Areas. These fences were designed to emit high-voltage electric shocks (nearly 10,000 Volt DC) for short span of time (one pulse per 1.2 second and pulse duration is 3milisecond) to deter wildlife from entering fields without causing harm.
- 2. Community Engagement:** Local communities were actively involved in the planning and execution of the project. This ensured that the solar fencing was tailored to the specific needs and preferences of the community. It has two components (i) Community fencing where cost sharing between the department and Community is in the ratio 90:10 and (ii) individual fencing where cost sharing between the department and individual

is in the ratio 50:50. However, in this case community fencing provision have been made available in consultation with the local communities.

3. **Cost of the Project:** The total cost comes about 10.24 Lakhs excluding GST.
4. **Training and Awareness:** Farmers and local persons were provided with training on the proper use and maintenance of the solar fencing systems. Awareness campaigns highlighted the benefits of the technology and encouraged its adoption.

Key Success Factors:

1. **Cost Effectiveness and Appropriate Material Selection:** The successful of any scheme depends mostly on its implementing cost. The cost of the project is 10.24 Lakh excluding GST and use of materials such as 30 mm x 5mm GI angle over RCC pillars to rectify the bend portions instead of replacing it with a new one, ABS insulators, TATA GI fencing wire of 2.5 mm, corner spring and tightening tool set for auto tensioning of wires and danger plates.
2. **Community Participation:** Local communities played a vital role in the success of the project. Farmers were actively involved in the planning, Site selection, installation, and maintenance of the solar fences. This not only reduced implementation costs but also increased the sense of ownership and responsibility among the villagers.



Meeting with village committee Signing of MOU with Village Committee

3. **Wildlife Awareness:** Simultaneously, awareness programs were conducted to educate the local population about the importance of coexisting with wildlife. This included teaching them about the behavior of animals and providing guidance on non-lethal methods of crop protection.





Inspection of RCCF & DFO Rourkela



Inspection of ACFs after implementation

- 4. Monitoring and Maintenance:** Regular monitoring and maintenance of the solar fencing were crucial to its success. Local volunteers and forest department staff were trained to check for any damages or malfunctions and to promptly repair them.



Inspection of ACFs after implementation



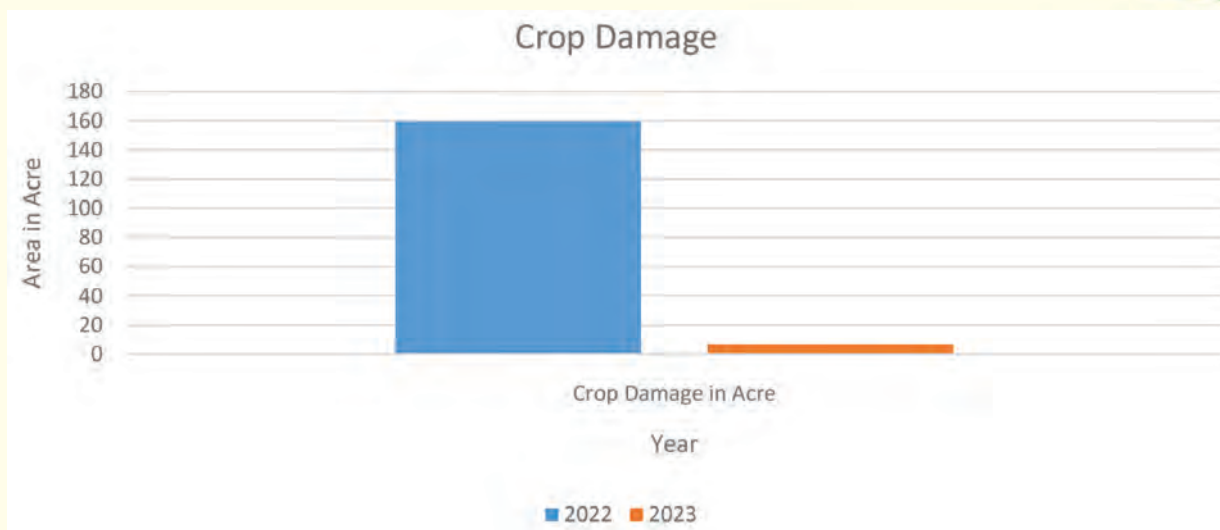
Solar fencing along the Ergeda RF boundary line

Results and Impact

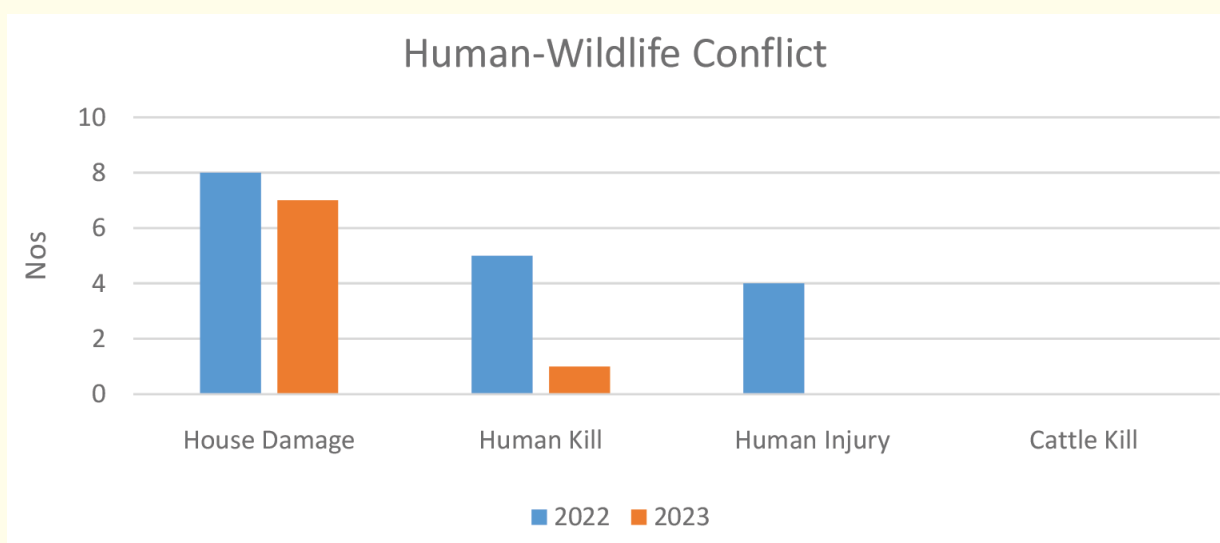
The implementation of **Jana Surakshya Gaja Rakshya Scheme** in Rourkela Forest Division has yielded several positive outcomes:

- 1. Crop Protection:** Farmers reported a significant reduction in crop damage due to the solar fencing, leading to increased agricultural productivity and income. It protected 15 Nos of Villages measuring around 1200 Acres of from the crop raiding Elephants during harvesting season which is graphically shown below for the year 2022 and 2023.



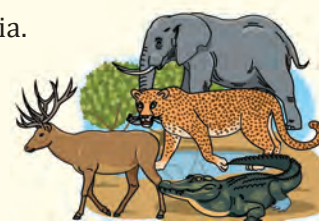


2. **Reduced Human-Wildlife Conflicts:** Incidents of human-wildlife conflicts, such as elephant raids on villages, were notably reduced. This helped in safeguarding the lives and property of villagers which are graphically represented below.



3. **Conservation:** The project contributed to wildlife conservation by reducing the need for retaliatory killings of animals and promoting peaceful coexistence between humans and wildlife.
4. **Sustainability:** Solar fencing proved to be an environmentally friendly and sustainable solution, as it relied on renewable energy sources and required minimal ongoing costs.
5. **Replication:** The success of the project in Rourkela Division served as a model for other Divisions in Odisha facing similar issues, leading to the replication of solar fencing initiatives in various regions.

The implementation of solar fencing in Rourkela Division demonstrates how innovative and community-driven approaches can address complex issues like human-wildlife conflicts and agricultural protection. It not only benefited farmers but also contributed to wildlife conservation and harmony between humans and animals, making it a notable success story in India.





CREATION OF NEW GRASSLANDS AFTER RELOCATION OF 400 FAMILIES OF 4 VILLAGES FROM DEBRIGARH SANCTUARY

Debrigarh is home to approximately 40 species of mammals, 234 species of birds, 41 species of reptiles, 12 species of amphibians and more than 80 species of butterflies. The human habitations in proximity to Debrigarh often go through negative interactions with wild animals due to crop depredation. But to make co-existence peaceful and mitigate conflict, immediate compensations and community based eco-development runs parallel. To further zero down human-animal conflicts, creating more inviolate area for wild animals is a sustainable way benefitting both, the humans and the wildlife.

After relocation and resettlement of 400 families of 4 villages from Debrigarh Sanctuary during 2021 & 2022 - around 300 hectares of grassland creation is under progress during 2023 on the same relocated areas. More than 5000 kgs grass seeds of *Heteropogon*, *Dicanthium*, *Cloris*, *Wildbajra* etc have been broadcasted during this monsoon. Creation of two “Relief Enclosures”, 2 hectare each is under process within the grasslands for long-term grassland management. Tiger movement is frequent in these locations due to gathering of ungulates. Spatial separation of human beings and the animals by relocation of villages from Debrigarh Sanctuary has brought good results for both animals and the humans. Creation of grassland in the relocated space is providing better habitat for the ungulates and consequently better conditions for the carnivores. This also checks animal dissemination to adjoining human habitations and cultivated areas reducing man-animal conflicts. On the other hand, the villagers who have lived long inside forest without electricity, health services, road connectivity, education, deprived of all basic facilities of life inside sanctuary got an opportunity to healthy, happy and better life post relocation, fulfilling their social as well as economical needs. All 400 families have already received 15 Lakh compensation(each family also drawing monthly interest money of their fixed deposits), 10 decimal patta land and now they are constructing their own Biju Pucca Ghars while residing in the relocation colonies created by Forest Department outside the Sanctuary. Permanent Community halls are used for their social functions and during daytime school is operational.



Area before relocation



Area after relocation





Relocation colony



TECHNOLOGICAL INTERVENTIONS FOR WILDLIFE MANAGEMENT

Advanced technology helps in creating and time bound updation of Wildlife database and to monitor population dynamics, distribution pattern, habitat use and preferences. This helps in planning execution and manage wildlife conservation programmes, protection measures, habitat management, ameliorating of negative effects non forestry activities, identification and creation and manning of critical infrastructure at strategic locations etc.some of such prominent technological intervention undertaken are as follows:

1. Integrated Wildlife Management System (iWLMS)

Odisha Integrated Geoportal for Wildlife Management, facilitates GIS based wildlife information for all the protected areas (Sanctuaries) and wildlife units (forest divisions) have been implemented/adopted in the State of Odisha. The existing system provides visualization of key spatial data like forest administrative boundary, boundaries of protected area, eco-sensitive zone, wildlife corridors, headquarter locations, wildlife management, infrastructure, rescue centers, crew stations, eco-tourism locations, etc.

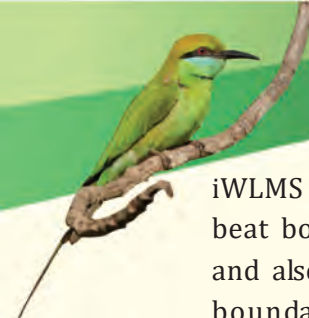
A mobile application is also developed for recording incidents of elephant sighting and tracking of elephant herds. More than 3500 Field officials across the State record elephant sighting on day-to-day basis, which gets transmitted to a centralized server for visualization, tracking and analysis of elephant movement across the State on a near real-time basis. This portal has been upgraded with the help of ORSAC and has been integrated from Proprietary Software to Open-source platform.

The old portal had the Reporting of the Elephant Movement and Sighting as the only reliable feature than the Monitoring feature and Map-based visualization of the elephant herd and incidents occurring. In the improved version of the portal, it enables the web and mobile application for better visualization of the maps, graphs, etc., detailed information of wildlife units, sanctuary, etc., enhancement regarding analysis of future elephant movement and tracking related decision making, Incident Reporting, Animal Injury, Biosphere Info, Eco-sensitive zone monitoring and development backend system for updating content.

i. iWLMS Bulk SMS System

Early Warning System in the form of Bulk SMS was launched from 19.01.2022 to give advance information to villagers. SMS alert system for early warning about presence of elephants has been implemented in the State. In the iWLMS system automated message system has been introduced with technical support of ORSAC. On the basis of elephants sighted and reported,





iWLMS triggers SMS to all registered citizens within beat boundary polygon where elephant is located and also within 5 km of the buffer from the beat boundary. Total of 18300 citizens have been registered in the system till 31.07.2023 to receive SMS alert.

For elephant movement in border areas of three Divisions, there is provision of sending SMS alert to the three Divisions.

Field divisions can register, edit and/or sanitize registered citizen details for channelizing SMS receipt to intended villagers.



ii. Other Technology used in Wildlife Management

- Solar powered light based warning system have been functioning in few vulnerable village areas on experimental basis in Athmallik, Dhenkanal, Keonjhar and Baripada Divisions.
- Parallel alert system through bulk SMS on different interface are also in operational to supplement the iWLMS especially on Keonjhar, Bonai, Baripada, Deogarh, Rourkela Divisions.
- LED display boards to display elephant locational information and message on scroll have been installed in two conflict prone locations in Baripada and Keonjhar Divisions.
- Alert through local broadcasting stations of All India Radio is going on in Rourkela and Keonjhar Divisions.
- Automated recorded voice message alert is also in use in Rourkela and Keonjhar Division.

2. ANUKAMPA APP for Compassionate Payment

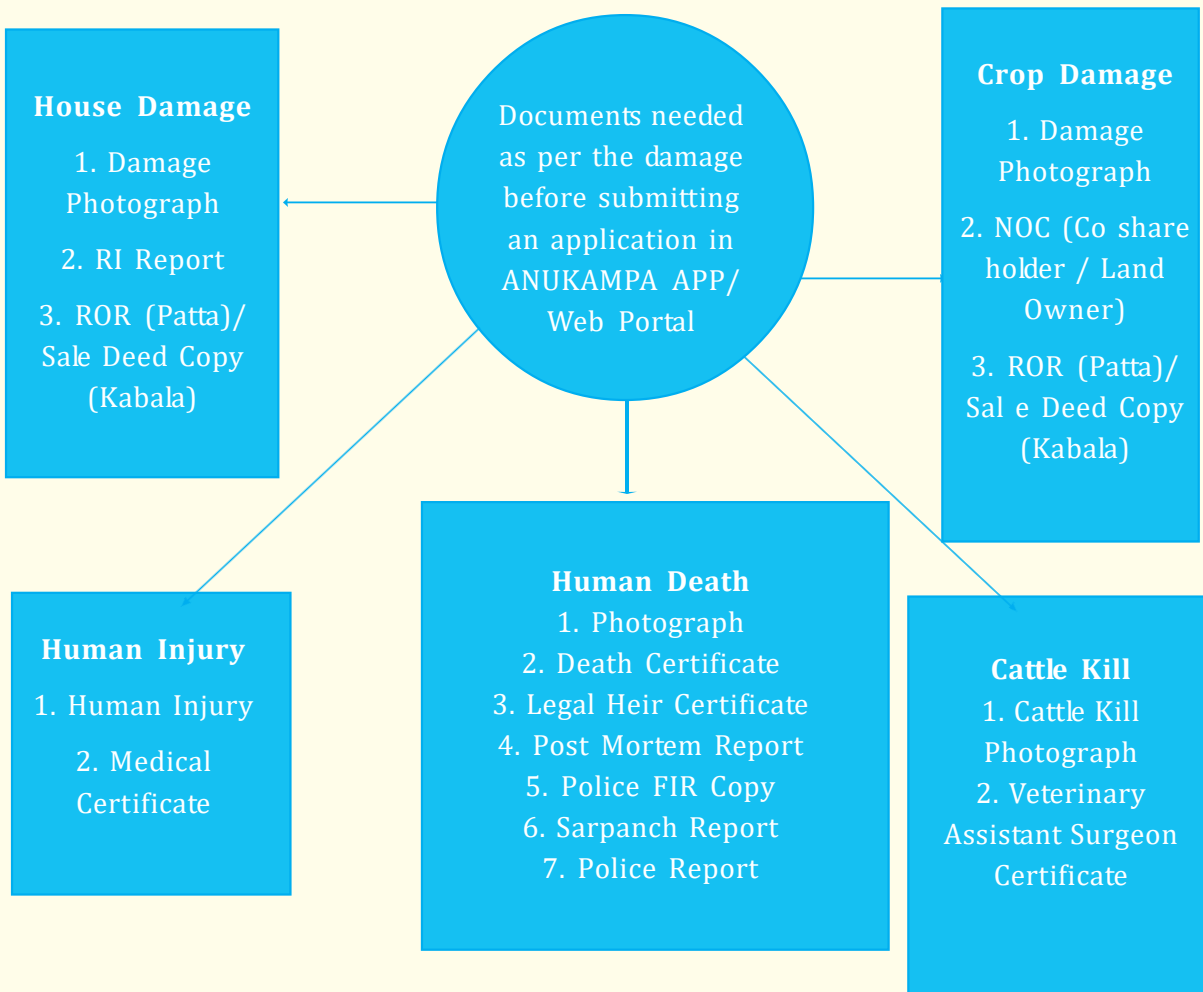
Anukampa" is a User-friendly software developed and launched by PCCF (Wildlife) & Chief Wildlife Warden, Odisha, State Wildlife Organization, Department of Forest, Environment and Climate Change, Government of Odisha in association with Technical Partner, Odisha Space Application Centre (ORSAC), Bhubaneswar. The portal is being used for claiming Compassionate Payment towards Human Kill, Human injury, Cattle Kills, Crop damage or House damage by Wild Animals as per Chapter-VAA, Wildlife (Protection) (Orissa) Rules,1974.

The objective of this initiative is to facilitate compassionate payment in a time bound and hassle-free manner to citizens who are victim of wildlife depredation. The victims can apply online or through mobile app for sanction of compassionate payment. In case of any difficulty, the applicant may contact "Mo Sarkar Cell" in the concerned Range Office for necessary assistance.



- The portal developed by ORSAC has been implemented since June, 2021 to expedite the process of settling claims of victims affected due to wild animal depredation and to bring in transparency in damage assessment and sanction of compassionate amount.
- The portal ANUKAMPA has been integrated with IFMS portal for payment of compassionate amount to the victims quickly on 18.04.2022.
- The portal can be accessed through www.anukampa.odisha.gov.in
- 53925 numbers applications have been disposed from 01.04.2022 to 31.03.2023 with payment of Compassionate Amount of Rs.16,88,80,842.00 through IFMS.

Documents required and process followed for document collection for Compassionate grant Payment for Wildlife Depredation in ANUKAMPA Portal

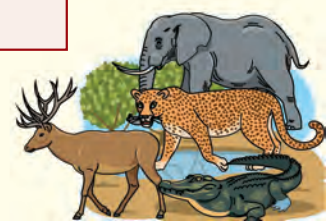


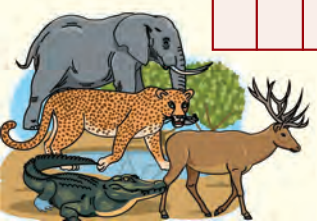
Payment of compassionate grant to beneficiaries in ANUKAMPA Portal through IFMS from 01.04.2022 to 31.03.2023

Circle	SL No	Division	No. of Surveyor registered	No. of Applications registered	No. of Survey in Progress	No. of Survey completed and under Processing at RO Level	No. of Applications Rejected by RO	No. of Applications Approved by RO and under Processing at DFO Level	No. of Applications Rejected by DFO	No. of Applications Approved by DFO	Paid through IFMS
Angul	1	Angul	185	9276	151	271	1975	1	0	6878	2,21,03,049.00
	2	Athagarh	59	1526	63	24	186	7	1	1245	49,90,866.00
	3	Athamallik	95	2001	5	15	265	0	0	1716	38,43,927.00
	4	Cuttack	22	414	78	22	83	0	2	229	6,72,022.00
	5	Dhenkanal	84	4519	340	88	1019	9	1	3062	2,28,52,681.00
	6	Mahanadi WL	16	181	8	11	42	0	0	120	5,33,982.00
	7	Satkosia WL	29	878	20	7	287	0	2	562	10,50,396.00
		TOTAL	490	18795	665	438	3857	17	6	13812	5,60,46,923.00
Baripada	8	Balasure WL	37	864	4	21	91	0	2	746	17,84,628.00
	9	Baripada	78	2244	13	15	463	2	0	1751	59,67,670.00
	10	Karanjia	87	3727	94	28	145	2	17	3441	94,18,710.00
	11	Keonjhar WL	29	470	20	3	46	0	0	401	14,04,154.00
	12	Rairangpur	23	513	9	4	163	1	11	325	16,03,184.00
	13	Similipal (N) WL	24	67	0	0	24	0	0	43	2,78,560.00
	14	Similipal (S) WL	12	22	0	0	8	1	0	13	42,000.00
		TOTAL	290	7907	140	71	940	6	30	6720	2,04,98,906.00
Berhampur	15	Balliguda	16	96	1	0	31	0	0	64	5,92,204.00
	16	Berhampur	44	240	0	5	49	1	0	185	6,02,722.00
	17	Boudh	23	343	34	2	129	2	0	176	6,69,318.00



	18	Ghumsur North	51	2447	8	11	747	1	0	1680	47,20,970.00
	19	Ghumsur South	22	501	42	15	91	4	0	349	11,36,422.00
	20	Paralakhemundi	12	54	6	0	22	5	0	21	2,04,836.00
	21	Phulbani	10	46	3	3	15	1	3	21	69,512.00
		TOTAL	178	3727	94	36	1084	14	3	2496	79,95,984.00
Bhawanipatna	22	Bolangir	47	512	37	16	102	1	0	356	18,41,708.00
	23	Kalahandi North	53	1843	20	23	150	0	0	1650	1,06,47,878.00
	24	Kalahandi South	38	437	1	13	26	0	0	397	24,32,314.00
	25	Khariar	28	281	9	10	90	4	0	168	6,00,982.00
	26	Subarnapur	33	685	36	18	160	3	0	468	21,45,700.00
	27	Sunabeda WI	7	10	4	1	1	0	0	4	4,15,000.00
		TOTAL	206	3768	107	81	529	8	0	3043	1,80,83,582.00
Bhubaneswar	28	Bhadrak WI	15	11	0	0	8	0	0	3	10,000.00
	29	Chandaka WI	18	107	28	1	25	0	0	53	89,070.00
	30	Chilika WI	11	88	0	0	37	0	0	51	1,47,104.00
	31	City Forest	11	43	2	0	21	0	0	20	1,35,516.00
	32	Khordha	100	3084	180	27	746	4	3	2124	71,45,275.00
	33	Nayagarh	64	980	18	2	139	0	18	803	26,90,730.00
	34	Puri WI	13	48	0	7	10	2	0	29	65,760.00
	35	Rajnagar WI	7	24	2	0	2	0	0	20	12,79,380.00
		TOTAL	239	4385	230	37	988	6	21	3103	1,15,62,835.00
Koraput	36	Jeypore	6	17	0	0	6	0	0	11	1,45,000.00
	37	Koraput	10	19	0	0	7	0	0	12	4,47,700.00
	38	Malkangiri	13	11	1	1	4	0	1	4	4,15,000.00
	39	Nabarangpur	20	25	0	0	9	0	0	16	2,59,000.00





	40	Rayagada	25	284	0	0	57	0	1	226	16,15,138.00
		TOTAL	74	356	1	1	83	0	2	269	28,81,838.00
Rourkela	41	Bonai	44	1530	0	1	249	0	0	1280	47,75,922.00
	42	Deogarh	61	2599	2	1	518	0	0	2078	72,95,192.00
	43	Keonjhar	55	2772	31	11	255	0	6	2469	91,25,028.00
	44	Rourkela	37	1090	9	5	301	0	0	775	71,22,320.00
45	Sundargarh	51	769	2	2	524	0	15	226	19,14,626.00	
		TOTAL	248	8760	44	20	1847	0	21	6828	3,02,33,088.00
Sambalpur	46	Bamra Wl	59	1516	22	5	183	32	0	1274	62,27,232.00
	47	Bargarh	66	1296	41	120	343	0	0	792	27,72,314.00
	48	Hirakud Wl	3	51	1	4	10	0	0	36	1,38,080.00
	49	Jharsuguda	37	148	0	0	31	0	0	117	14,76,446.00
	50	Rairakhol	50	1952	54	12	317	0	5	1564	65,05,658.00
51	Sambalpur	54	1264	239	11	188	22	0	804	44,57,956.00	
		TOTAL	269	6227	357	152	1072	54	5	4587	2,15,77,686.00
		GRAND TOTAL	1994	53925	1638	836	10400	105	88	40858	16,88,80,842.00

3. Odisha Wildlife Turtle Monitoring System

The Olive Ridley turtle is listed as 'Vulnerable', the Green turtle is listed as 'Endangered', the Leatherback turtle and the Hawksbill turtle are listed as 'Critically Endangered' on the IUCN Red List of Threatened Species. They are also protected under the Convention on Migratory Species (CMS) and Convention on International Trade in Endangered Species (CITES) to which India is a signatory Nation. Olive Ridley Sea Turtle (*Lepidochelys olivacea*) is a Schedule-I species under the Wildlife (Protection) Act, 1972. Killing of this animal or damage to its habitat attracts the most stringent punishment under this Act.

Four species of sea turtles occurs in Odisha coastal waters namely Olive ridley (*Lepidochelys olivacea*), the Green turtle (*Chelonia mydas*), the Leatherback turtle (*Dermochelys coriacea*) and the Hawksbill turtle (*Eretmochelys imbricata*). Among them Olive Ridley has the habit of sporadic and mass nesting on suitable beach strips, and of congregating for the purpose of breeding in the coastal sea near the mass nesting areas over a period of 6-8 months. The Odisha coast harbors three major *arribada* sites i.e., Gahirmatha, Devi and Rushikulya rookery.

State Wildlife Headquarters has developed one portal "Odisha Wildlife Turtle Monitoring System" for protection of this flagship species. It includes six coastal Divisions are namely Balasore, Bhadrak, Rajnagar, Puri, Chilika and Berhampur. This portal is a user-friendly software. All the Divisions uploading the data on casualties at the respective nesting sites in this portal on-line mode. This aims at mitigating the threats and developing proper ecological in-sights into the long-term survival of this fascinating species in a comprehensive manner.

SL NO	DIVISION NAME	NO OF NEST	NO OF FALSECRAWL	MORTALITY MALE	MORTALITY FEMALE	MORTALITY TOTAL	NO DOG	NO JACKLE	NO FOX	NO HYENA	NO WILD	OTHER ANIMAL
1	BHADRAK	0	2	05	07	002	04	17	23	0	0	0
2	BALASORE	0	1	34	59	23	1126	0	0	0	0	0
3	CHILIKA	112	0	37	33	68	0	0	0	0	0	0
4	RAJNAGAR	210	0	109	205	474	0	0	0	0	0	0
5	BERHAMPUR	4547	287	115	181	316	0	0	0	0	0	0
6	PURI	1185	0	421	563	268	0	0	0	0	0	0
				1624	1218	2122						



4. Use of monitoring equipment (Trap Camera & Drone Camera)

Trap Cameras/ Drone Cameras are used in wildlife field for tracking illegal activities, movement animals, count their population, plan reforestation, take exotic images and more.

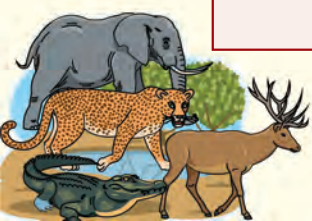
Trap cameras are also used to capture photos relating to animal behavior, census of wild animals, surveillance systems, occupancy and diversity of animals present inside Protected Areas (Sanctuary/ National Park) and other important habitats.

The Drone Camera is used in forest fire point for assessment of the damage area and view where fires are most likely to spread. It is used to capture data without physically entering areas and reduce biotic interference and human impact on ecosystem as whole.

The following Trap Cameras and Done Cameras are available and procured during 2022-23 for monitoring of wildlife movements as given below:

Availability of Trap Cameras & Drone Cameras during 2022-23.

Circle	SL No.	Name of Division	No. of Trap Camera	No. of Drone Camera
Angul Circle	1	Angul	55	2
	2	Athagarh	2	1
	3	Athmalik	91	5
	4	Cuttack	43	1
	5	Dhenkanal	56	5
	6	Mahanadi (WL)	240	4
	7	Satkosia (WL)	444	2
Baripada Circle	8	Balasore (WL)	17	1
	9	Baripada	7	0
	10	Karanja	14	0
	11	Keonjhar (WL)	39	0
	12	Rairangpur	15	2
	13	Similipal North	181	3
	14	Similipal South	470	2
Berhampur Circle	15	Balliguda	59	1
	16	Berhampur	32	2
	17	Boudh	39	4
	18	Ghumsur North	29	2
	19	Ghumsur South	28	1
	20	Parla-khemundi	25	1
	21	Phulbani	30	2
Bhawanipatana Circle	22	Bolangir	14	5
	23	Kalahandi (N)	25	5
	24	Kalahandi (S)	51	3



	25	Khariar	39	1
	26	Subarnapur	12	0
	27	Sunabeda (WL)	30	2
Bhubaneswar Circle	28	Bhadrak (WL)	0	0
	29	Chandaka (WL)	13	1
	30	Chilika (WL)	0	0
	31	City Forest	4	0
	32	Khurda	10	1
	33	MFD (WL)	48	1
	34	Nayagarh	171	1
	35	Puri (WL)	29	1
Koraput Circle	36	Jeypore	20	1
	37	Koraput	16	0
	38	Malkangiri	30	2
	39	Nawarangpur	26	1
	40	Rayagada	18	0
Rourkela Circle	41	Bonai	107	3
	42	Deogarh	69	1
	43	Keonjhar	73	4
	44	Rourkela	47	1
	45	Sundargarh	40	3
Sambalpur Circle	46	Bamra (WL)	24	0
	47	Bargarh	68	1
	48	Hirakud (WL)	137	2
	49	Jharsuguda	12	7
	50	Rairakhol	49	1
	51	Sambalpur	18	1
Total			3116	90

5. Early Warning System using GSM SIM based technology

This GSM SIM based early warning system has been piloted in Angul, Dhenkanal and Deogarh Forest Divisions. Herein, GSM technology is used and the system is installed on the pole with GSM SIM having close user group (CUG) with 4 to 5 individuals having access to the said system. Whenever, the animal is approaching any human habitation, a call to the said system generates sound (siren) / light cautioning the villagers about the presence of elephant in the surroundings. So far, it has been found to be effectively working. And, if successful it will be scaled up to cover other wildlife depredation areas as well.



CHAPTER IX

PREVENTION OF WILDLIFE CRIME AND FORMATION OF JOINT TASK FORCE

ORGANIZATIONAL STRUCTURE OF JOINT TASK FORCE (JTF)

The elephant landscape in the East Central region has been witnessing increasing levels of Human-Elephant Conflict (HEC) during the past three decades and Odisha is no exception. The HEC in the State is a burning issue now a day leading to both elephants and human beings significant loss of property every year. The increasing levels of HEC have resulted in considerable public resentment and concern which has led to the filing of the PILs, the consequent formation of the Joint Task Force (JTF) comprising of both Forest and Police Personels on 13.09.2022 vide No. FE-WL-CASE-0009-2022/16368/FE & CC pursuant to the Order dated 08.08.2022 and Order dated 25.08.2022 of the Hon'ble High Court of Orissa passed in W.P.(C) PIL No. 14706 of 2022 (Gita Rout vrs. State of Odisha and Others).

ORGANIZATIONAL STRUCTURE OF JTF

PCCF (Wildlife) & Chief Wildlife Warden, Odisha

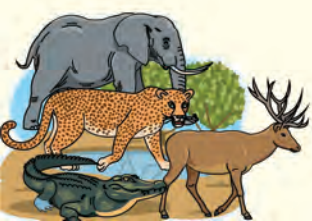
**Chief Conservator of Forests (Wildlife),
O/o PCCF (WL) & CWLW, Odisha, Chairman JTF**

Members

- One Dy. CF
- One SP/Addl. SP.
- Two ACFs
- Three Range Officers
- Two Inspectors of Police
- Three Sub- Inspectors of Police

Co-opted Members (Wildlife Expert)

- Prof. Raman Sukumar
(Asian Nature Conservation Foundation)
- Sri Jitasatru Mohanty, IFS (Retd.),
(Save Elephant Foundation Trust)
- Dr. Prajna Panda
(National Coordinator, Elephant Cell,
Project Elephant, MoEF&CC)
- Sri Aditya Chandra Panda
(Honorary Wildlife Warden, Angul District)
- Sri Lalit Mohan Sahu
(Honorary Wildlife Warden, Deogarh District)



Comprehensive Action Plan (CAP)

Also, as per the directions of the Hon'ble Court vide its order dated 25.08.2022, and reiterated vide Order dated 15.11.2022, a Comprehensive Action Plan (CAP) was prepared. During the process of preparation of the said plan, three key documents were referred obeying the direction of Hon'ble Court viz. a. '*Elephant Carrying Capacity of Odisha's Forests*' (Final Report submitted to Odisha Forest Department by Asian Nature Conservation Foundation in 2018), b. '*The Strategic Action Plan for Conservation of Elephants in the East Central Region with Special Emphasis on Mitigation of Human-Elephant Conflict*' (draft submitted by Drafting Committee to Project Elephant Division Ministry of Environment, Forest & Climate Change in 2021), and c. '*Report of the Karnataka Elephant Task Force*' (draft submitted by Task Force Members to High Court of Karnataka in Sept. 2012). Further, the presentation made by Dr Raman Sukumar, Hon. Professor, Indian Institute of Science, Bangalore, Member of National Board of Wildlife and Member, Joint Task Force, Govt. of Odisha taken into record by the Hon'ble Court was also a crucial document in terms of overall guiding principles considered while drafting the CAP. The CAP contains 194 action points basing on 10-pillar strategy which includes conflict-mitigation; inter departmental co-ordination, enforcement & prosecution, connectivity, peoples's participation, habitat management, wildlife health management, research and monitoring. The plan adopts a zone-based approach wherein four broad zones have been envisaged viz. Elephant Conservation Zone, Elephant-Human Co-existence Zone, Conflict Mitigation Zone, Elephant Removal (or Exclusion) Zone. The plan also includes a special chapter on preventing accidental & deliberate electrocution of elephants. Many of the action points of CAP are already ongoing but require renewed focus, enhancement, expansion and more critically, regular monitoring.

The CAP had been approved in *toto* by the High Power Committee chaired by Chief Secretary, Odisha and the approval had been communicated vide **Letter No. FE-WL-CASE-0009-2022/3220/FE & CC dated 21-02-2023** of Forest Environment & Climate Change Department, Odisha.


On approval of CAP, an inception workshop on implementation of Comprehensive Action Plan for conservation of elephants & mitigation of Human-Elephant Conflict in Odisha was held on 09-03-2023 under the Chairmanship of PCCF (WL) & CWLW, Odisha on virtual mode, wherein, all RCCFs & DFOs of all Territorial and Wildlife Divisions participated.

A state level monitoring Committee on Human-Wildlife Conflict under the Chairmanship of Chief Secretary has been constituted vide notification No. FE-WL-CASE-0009-2022-7824/FE&CC dated 17-04-2023. The first meeting of the above committee was held on 06-07-2023 in hybrid mode under the Chairmanship of Chief Secretary. Further, District Level Human-Wildlife Mitigation Committees under the Chairmanship of district Collector has been constituted in all 30 districts of the state. Meeting of the said committee in different districts have already been conducted and minutes of the meetings are circulated to all quarters.

Activities of JTF so far

1. Affidavits have been filed by Chairman, JTF and Additional S.P, member, JTF in the Hon'ble High Court related to W.P. (C) PIL No. 14706 of 2022 (Gita Rout vrs. State of






Odisha and Others) and the JTF members also attended the hearings of the said PIL virtually as per the order of Hon'ble High Court

2. The Division wise elephant movement data is being monitored by the team J.T.F. on daily basis through iWLMS and Whatsapp group data. Both the data (iWLMS & Whatsapp) and data from Control Room register are compared with each other and any discrepancy/ mismatch of report found, is being reported by J.T.F.
3. A Wildlife Offence Database and a crime dossier of all persons arrested / forwarded during last 10 years have been prepared with the available data from different divisions for the four Schedule I species viz. Tiger, Leopard, Elephant & Pangolin. These are being up to dated on regular basis.
4. At least one member of JTF remains present at the time of postmortem of unnatural death of Elephants, Tigers, Leopards and Pangolins.
5. A data base of mahouts engaged for captive elephants in different Division is created by JTF and included in the CAP.
6. Also, a database of interstate migrating elephants from 2015 is prepared by JTF.
7. Regular Co-ordination meetings have been conducted with stakeholders like DISCOMs, RCCFs, DFOs and Special task Force (STF).
8. Inspector, Wild Life Crime Control Bureau, Central Region is being contacted from time to time to track crimes of criminals having interstate ramifications.
9. Meetings with DISCOMs were conducted regarding formulation of an Action Plan for elephant protection and preventing electrocution deaths as per the Order dated 09-05-2023 of Hon'ble High Court in WP (C) PIL No. 14706 of 2022 and strengthening of electrical infrastructure in elephant movement areas to prevent electrocution of elephants.
10. Likewise the meeting with STF was held to create a bond between JTF and STF in sharing of intelligence, Joint Enforcement Activities, Mutual sharing of dossiers of habitual offenders, liaise with WCCB to trace forward linkage in Wildlife crimes.
11. Regular co-ordination with railway control rooms situated at Khordha and Sambalpur is also done by JTF.
12. A list of advisories has been issued by JTF to the Divisions to be followed during course of enquiry, investigation and prosecution vide Memo No. 1246/10WL-CC-517-A/2022 dated 03-02-2023.
13. Review of status of recent cases of unnatural death of elephants is being carried out by JTF from time to time.
14. The team JTF has visited Divisions and remained present during the Postmortem in 43 Wildlife Offence cases (mostly unnatural death of elephants) and given the lead to the I.O about the cause of death of elephants.
15. From the date of inception the JTF has given hand holding support in 18 Wildlife offence cases of Divisions like Angul (T) Division, Athagarh (T) Division, Athmallik (T) Division,

Balesore (WL) Division, Bamra (WL) Division, Baripada (T) Division, Chandaka (WL) Division, Dhenkanal (T) Division, Ghumsur North Division, Ghumsur South Division, Keonjhar (T) Division, Keonjhar (WL) Division, Khordha (T) Division, Phulbani (T) Division, Rourkela (T) Division, Satkosia (WL) Division, Similipal North (WL) Division and Similipal South (WL) Division.

16. In OR case No- 72BD of 22-23 of Bamra (WL) Division, JTF had enquired the matter vividly, collected information from the reliable sources and had given the lead to the I.O that the cause of death was due to electrocution. JTF has given hand holding support to the I.O for preparation of case records and arrest of accused persons.
17. In OR case No 146 of 22-23 of Rourkela (T) Division, the I.O. was guided to send viscera and other articles of elephant to state forensic laboratory for Chemical examination and opinion. I.O was provided sample statement for recording of statement of accused persons including sample prayer to be submitted in Court and sample exhibit forwarding report to SFSL, Rasulgarh and Bhubaneswar.
18. Due to the intervention of JTF, for the first time NBWs were obtained from the Hon'ble court against 7 accused persons and entrusted to Badamba and Athagarh Police stations respectively for execution of NBWs in OR case No-27 B of 22-23 and OR case No- 50 A of 22-23 of Athagarh Division.
19. In OR case No- 13J of 22-23 of Angul Division, the I.O was guided for submission of final Prosecution report within stipulated period & in OR case No 17 B of 22-23 of the same Division hand holding support was given to the I.O for preparation of case records.
20. In OR case No- 83 M of 22-23 of Athmallik Division, the I.O was guided for filing final prosecution report in elephant death case and the location of the accused persons shared on 23.12.2022. Sample requisition of Police assistant and sample statement of accused person provided by J.T.F. Frequent location of absconding accused persons were provided time to time.
21. CDR and SDR of accused persons were frequently provided to DFO which resulted arrest of accused persons in OR case No- 36K of 22-23 of Balasore (WL) Division.
22. In OR case No- 131BA of 22-23 of Baripada Division, the I.O was guided in preparing seizure list of wildlife articles like elephant bone, tortoise carapace, Common Langur bone etc. and assistance was provided for preparation of statement of accused and forwarding report of seven numbers of accused persons.
23. In OR case No-3 JN of 22-23 of Similipal South Division, an accused namely Faga Singh was brought on remand for further interrogation from judicial custody for the first time.
24. In OR case No 02T of 22-23 and 03T of 22-23 of Similipal North Division, the I.O was guided and 04 numbers of accused persons were brought on remand for interrogation from judicial custody for 2 days. Also, the statements U/s- 164 Cr. P.C of all 04 accused persons were recorded by the Hon'ble court for the first time.



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25. The State Institute of Rural Development (SIRD) has been requested to involve PRIs in creating awareness as mitigation measures of Human-Wildlife Conflict and to include some of the mitigation measures in GPDP prepared by the GPs.
 26. The awareness material in vernacular language related to Human-Wildlife Conflict mitigation in Odisha has been prepared by JTF and given to SIRD for inclusion in the training programme of PRI members.
 27. OSDMA is also requested to facilitate dissemination of alert/ warning messages regarding movement of elephant in vulnerable areas through Common Alerting Protocol (CAP).
 28. As a part of capacity building of JTF members, a training regarding the use and handling of metal detector to find out presence of metallic projectiles/ objects inside carcasses of wild animals including elephants was conducted on date 16-05-2023 by the nominated resource person of Superintendent of Police (Security), Bhubaneswar.
 29. JTF had facilitated and extended their support to the expert members' team of MoEF, Govt. of India during their field visits on groundtruthing of 14 identified elephant corridors of Odisha and one new corridor identified by ANCF (Hatibari-Baduapalli) in Sambalpur Division from 26-06-2023 to 30-06-2023.
 30. The Divisional Forest Officers of Angul, Athagarh, Athmallik, Bamra (WL), Dhenkanal, Deogarh, Ghumsur South, Keonjhar, Khordha, Phulbani, Rourkela, Sambalpur & Satkosia (WL) were requested to coordinate with concerned Executive Engineer (Electrical) to book cases under Electricity Act, 2003 against accused persons by Electricity Department in OR cases already booked related to death of elephants due to electrocution vide Memo No. 1707 dated 16-02-2023.

JTF FOR SIMILIPAL TR

For strengthening of protection activities in Similipal Tiger Reserve, Government have constituted a Joint Task Force consisting of forest and police officials with total of about 200 members.



WILDLIFE OFFENCE CASES BOOKED AND ACCUSED ARRESTED

Wildlife (Protection) Act 1972 is the umbrella legislation for wildlife conservation, protection and enforcement in the country. The prime responsibility of its implementation is with the States.

The details of the wildlife offence cases booked and accused arrested in the state of Odisha are as follows:

No of wildlife Offence Cases booked and Accused Arrested from 2013-14 to 2022-23 (10 Years)

Year	Animal	No of O R cases booked	No of Accused Arrested & Forwarded to Court
22013-14	Elephant	15	37
	Other animal	158	318
	Total	173	355
2014-15	Elephant	7	29
	Other animal	180	361
	Total	187	390
2015-16	Elephant	8	56
	Other animal	230	649
	Total	238	705
2016-17	Elephant	7	14
	Other animal	262	523
	Total	269	537
2017-18	Elephant	8	11
	Other animal	248	463
	Total	256	474
2018-19	Elephant	17	38
	Other animal	310	1236
	Total	327	1274
2019-20	Elephant	11	30
	Other animal	152	324
	Total	163	354
2020-21	Elephant	26	42
	Other animal	270	567
	Total	296	609
2021-22	Elephant	16	50
	Others	313	600
	Total	329	622
2022-23	Elephant	56	120
	Others	347	665
	Total	403	785



SEIZED AND RESCUED WILD ANIMAL



Rescue of Vulture in Balliguda Range, Balliguda Forest Division on Dated 02.02.2023



Rescue of Sloth bear cub, Jeypore Division

Leopard Skin seized in Nayagarh Range of Nayagarh Division



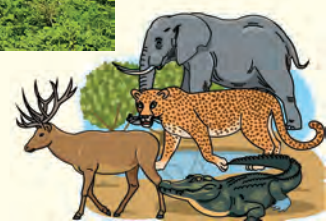
ECOTOURISM

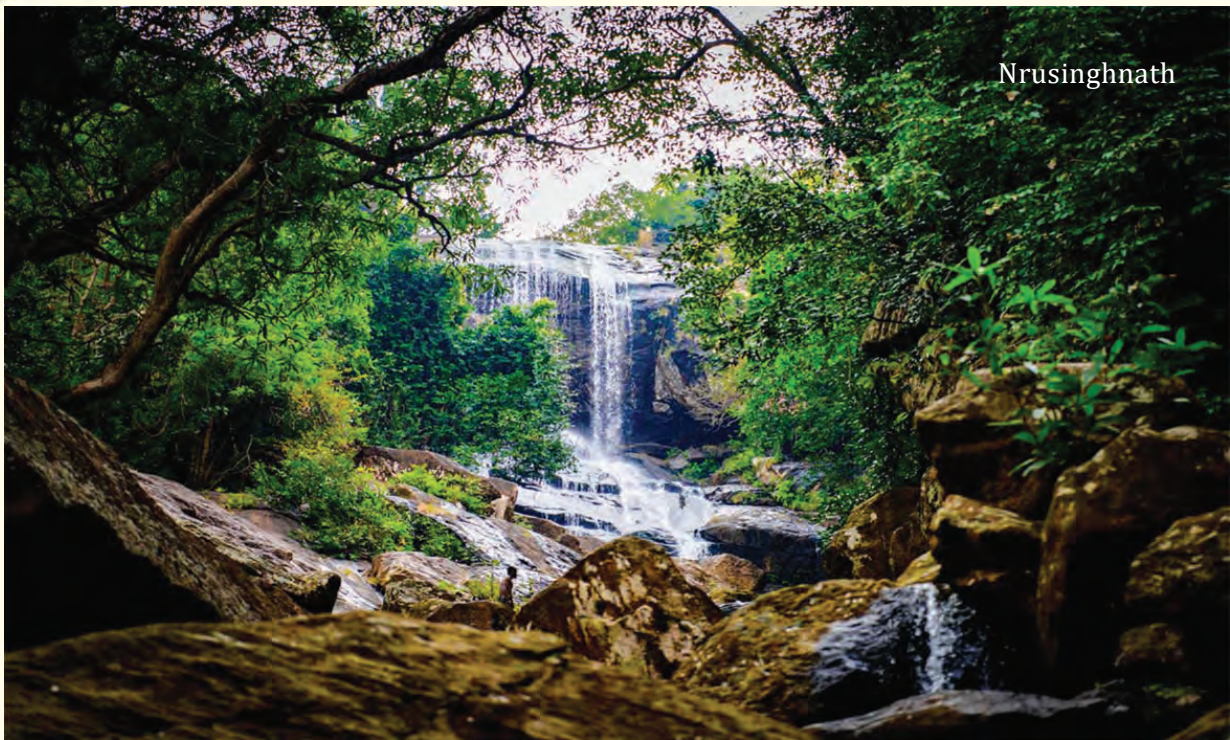
INTRODUCTION

Odisha is endowed with rich biodiversity. Varied ecosystems of Odisha support a wide range of Flora and Fauna in multiple Bio-geographic provinces. To protect, conserve and enhance wildlife one National Park, two Tiger Reserves, three Elephant Reserves, one Biosphere Reserve and 19 Sanctuaries have been established in the state which is important repositories of Biodiversity. Chilika, Bhitarkanika, Hirakud, Ansupa, Satakosia and Tampara wetlands have been declared as "Ramsar Sites" of international importance. Eco-tourism offers an opportunity to showcase the state's unique natural and associated cultural heritage to visitors while enhancing the livelihood options for the local people. For protection and conservation of wildlife, there is an urgent need for the active support of the public. This will lead to conservation of nature, sustaining of ecological processes, increased respect for local culture and traditions and tangible improvement in the local economy. Wildlife Organization has been protecting and conserving Wildlife and their Habitats and staff are mostly busy in rescue and rehabilitation of wildlife, mitigation of Human-Wildlife conflict. Besides, monitoring of status of wildlife and creation of awareness among the people is going on regularly.



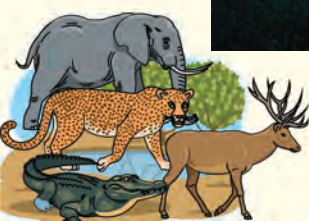
Rabandhara



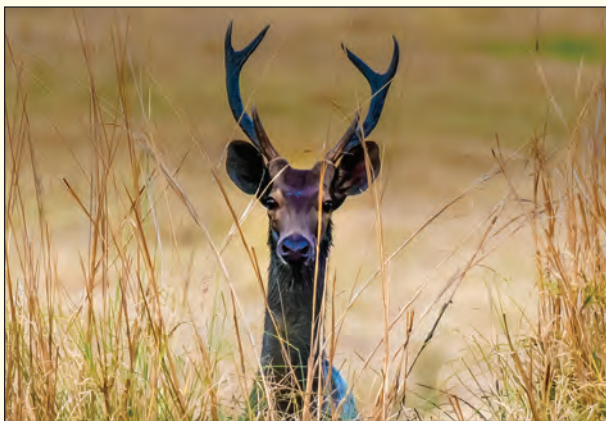


Background

Forest, Environment & Climate Change Department (Wildlife Organization) is the Nodal Agency for development of Ecotourism in the state. The Deptt. prioritizing the need of getting support of forest dependent communities for forest & wildlife conservation initiated "Community Based Eco-tourism" in Odisha during the year 2016. A five year scheme (2016-17 to 2020-21) was approved by Government for development of Ecotourism with budgetary allocation of Rs.56 Crore. Further five years action plan from 2021-22 to 2025-26 under programme expenditure has been submitted to the Govt. forecasting an amount of Rs.160.70 crore to be utilized. Forest dependent communities are made stakeholders in Ecotourism and major share of income generated from Ecotourism goes to them. The scheme is successfully implemented in different regions of Odisha with good results. The objective of the Scheme is to provide employment to the rural communities living in and around forest & wildlife areas through responsible tourism. Online Booking for night stay and safari vehicles is done through www.ecotourodish.com

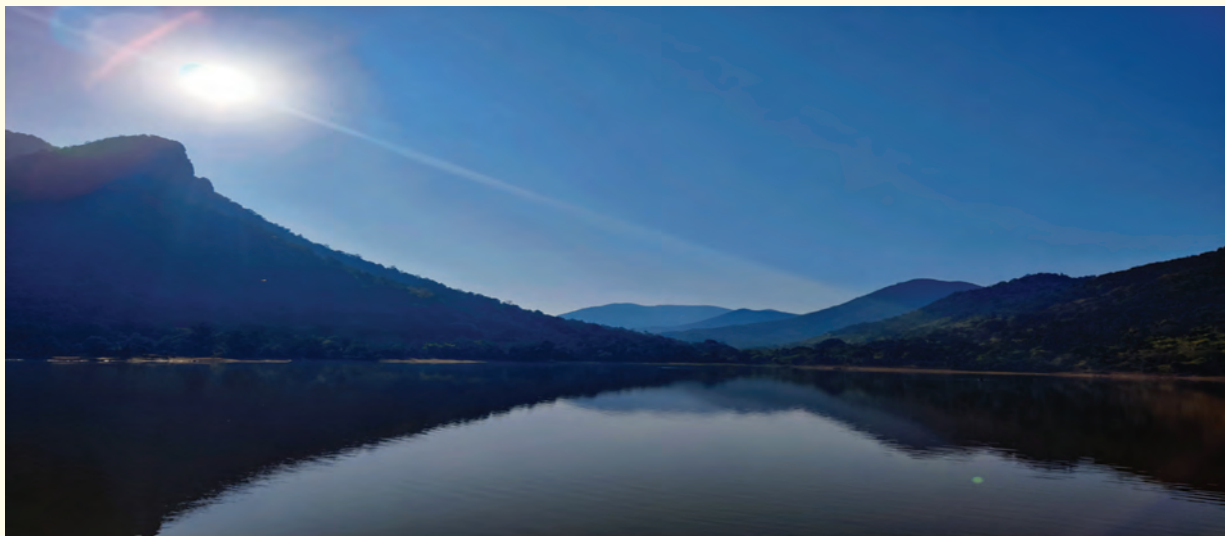







New Ecotourism Destination at Rabandhara in Kalahandi District

Panoramic view of Pengsur reservoir, sighting of beautiful birds and wildlife, Children's Park are the main attraction for tourists. For night stay, four eco-cottages are nestled in the natural ambience.





New Day Ecotourism Destination at Buddhakhola in Ganjam District and Sirki Eco-Park in Kandhamal District:

The Eco- Park, Buddhakhola is situated 6 km away from Buguda town towards North. During ancient times, Buddhist were residing and worshipping to Lord Buddha here. The entire area is surrounded by forest with scenic beauty, attracting the visitors from all walks of life. Visitors enjoy Children's Park, Open Gym and Nakshatrabana. Local women Self Help Group is actively involved in the management of the park and provide visitors handicrafts made up of bamboo and Non-Timber Forest Products.



Sirki Day Ecotourism destination has been developed by Phulbani Forest Division in the left bank of Sirki Minor Irrigation Project under G. Udaygiri Tahasil of Kandhamal District. The site is spectacular for its lush green surroundings. It could be reached from nearby G. Udayagiri Town. The site has been developed as an eco-tourism destination by developing the landscape with ornamental plantations, fixing children's play kit and providing boating facilities. It has become a spot of fascination especially for the children to spend time along the tranquil green meadows in the background of a large water body. Presently, two Local Self Help Groups are managing the site and a canteen for refreshment.



Ecotourism Destinations (with accommodation facility for night stay)

District	Forest Division	Nature Camps	Destination
Mayurbhanj	Similipal North (WL)	Similipal Nature Camps	Gurguria
			Jamuani
			Kumari
			Ramatirtha
			Barehipani
Nayagarh	Mahandi (WL)	Satkosia Sand Resorts	Satkosia Sand Resort (Badmul)
	Nayagarh (T)	Sidhamula Nature Camp	Sidhamula
Kendrapada	Rajnagar (WL)	Bhitarkanika Nature Camps	Dangmal
			Gupti
			Habalikhati
Angul	Satkosia (WL)	Satkosia Nature Camps	Baghamunda
			Chhotkei
			Purunakote
			Tarava
			Tikarpada
Bargarh	Hirakud (WL)	Debrigarh Nature Camp	Debrigarh
	Bargarh (T)	Nrusinghnath Nature Camp	Nrusinghnath
Kandhamal	Baliguda (T)	Belghar Nature Camp	Belghar
		Daringbadi Nature Camp	Daringbadi
	Phulbani (T)	Phulbani Nature Camp	Phulbani
			Mandasaru Valley
Puri	Puri (WL)	Nuanai Nature Camp	Nuanai
	Chilika (WL)	Chilika Nature Camps	Rajhans
			Berhampura
Khordha	Chandaka (WL)	Chandaka Nature Camps	Mangalajodi
			Deras
	Khordha (T)	Barbera Nature Camp	Barbera
Balasore	Balasore (WL)	Bichitrapur Nature Camp	Bichitrapur
		Chandipur Nature Camp	Chandipur
		Rissia Nature Camp	Rissia
Sundergarh	Bonai (T)	Khandadhar Nature Camp	Khandadhar
		Tensa Nature Camp	Tensa
	Sundergarh (T)	Sarafgarh Nature Camp	Sarafgarh
Keonjhar	Keonjhar (T)	Sanghagra Nature Camp	Sanghagara





Ganjam	Ghumsur North (T)	Giant Squirrel Nature Camp	Kaliamba
		Blackbuck Nature Camps	Saluapali
			Bhanjanagar Dam
	Ghumsur South (T)		Chermaria
	Berhampur (T)	Ghodahada Nature Camp	Ghodahada
Cuttack	Athgarh (T)	Ansupa Nature Camp	Ansupa
	Cuttack (WL)	Mahavinayak Nature Camp	Mahavinayak
Jajpur		Olasuni Nature Camp	Olasuni
Dhenkanal	Dhenkanal (T)	Saptasajya Nature Camp	Saptasajya
Malkangiri	Malkangiri (T)	Chitrakonda Nature Camp	Chitrakonda
		Satiguda Nature Camp	Satiguda
Nuapada	Khariar (T)	Patora Dam Nature Camp	Patora Dam
Koraput	Koraput (T)	Koraput Nature Camp	Koraput (Pine Forest)
Kalahandi	Kalahandi North	Rabandhara Nature Camp	Rabandhara



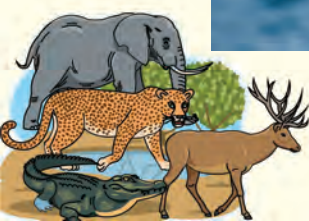
Sanaghagara Nature Camp



Kumari Nature Camp



Debrigarh Nature Camp





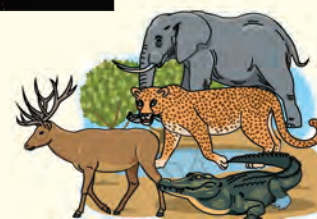
Satiguda Nature Camp

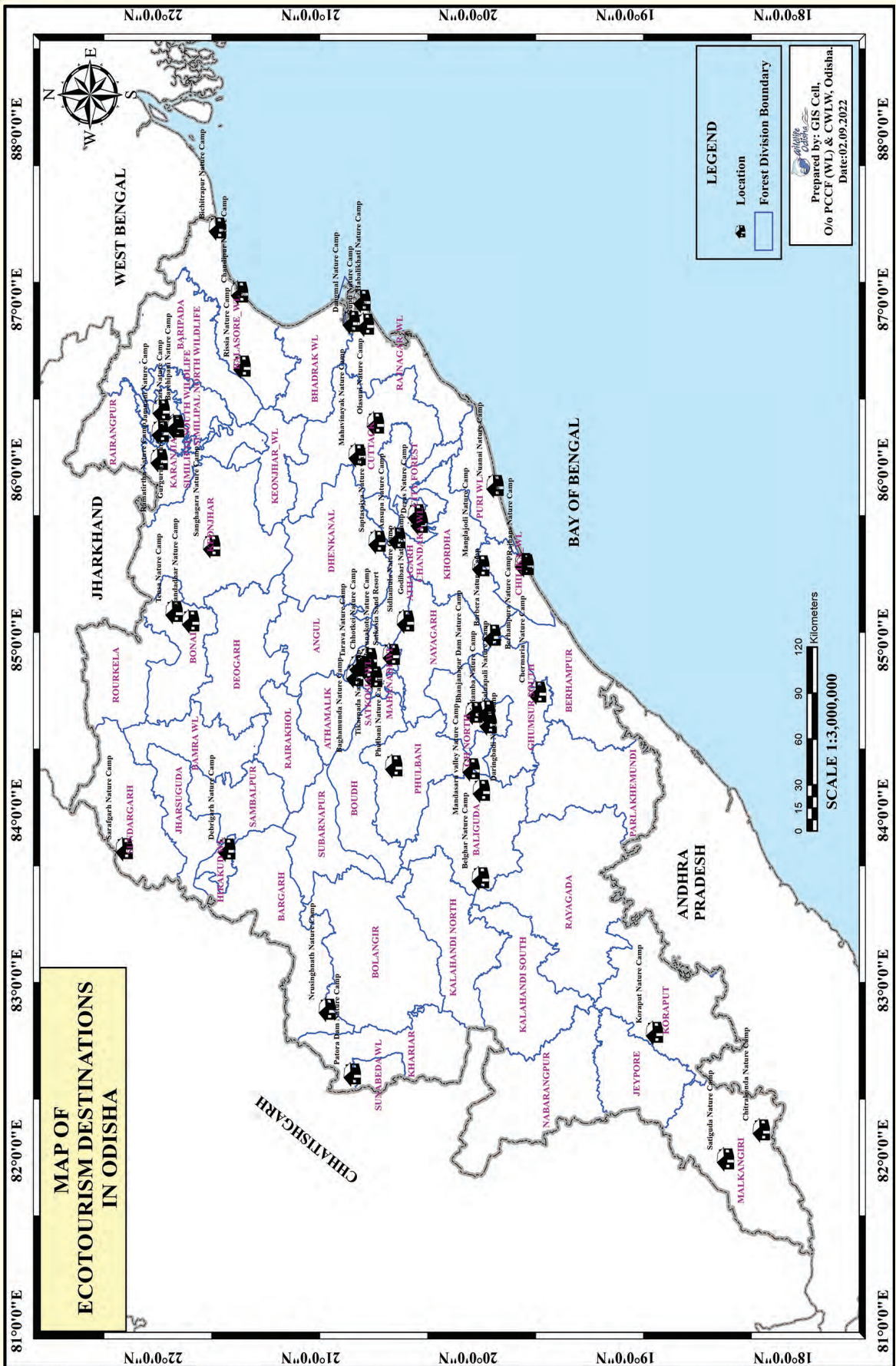


Ansupa Nature Camp



Baghamunda Nature Camp





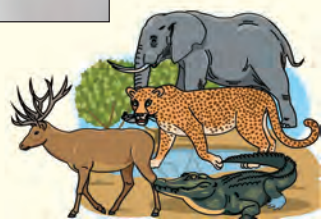
Map 11: Map of Ecotourism Destination



Strengthening Community participation and Capacity building of local community i.e. EDC/ VSS / ETG members for management of Ecotourism

Ecotourism is community based management, major thrust is given on training of village communities for management of Nature Camps. The training programmes are being conducted by Institute of Hotel Management (IHM), Bhubaneswar and Odisha Bio Diversity Board (OBB), Bhubaneswar for the EDC/ VSS/ ETG members for providing training, capacity building and exposure visit on Hospitality, Housekeeping, Sanitation, Cleaning, Communication Skills, Food Cuisine and Check in & Check out protocols, Eco-guide etc. for better management of Ecotourism in the State.

Training programme through Institute of Hotel Management, Bhubaneswar





Eco-guide training on identification and important aspects of flora and fauna through Odisha Bio-diversity Board



Ecotourism Cell & City Booking Centre:

The Ecotourism Cell is functioning in the Ground Floor of Prakruti Bhawan, O/o PCCF (WL) & CWLW, Bhubaneswar, Odisha. The Professional Consultants such as Sales & Marketing Executive, Hospitality & House Keeping Expert & Project Manager from OFDC Ltd. are working for monitoring online booking, maintenance and hand holding support for management of ecotourism destinations in the State. For better facility and easy access by the tourists, installation of POS machine and QR Code for Cashless transactions have been provided at Ecotourism Cell.

Email: contact@ecotourodisha.com, support@ecotourodisha.com

Phone Numbers: 0674-2549553/2549558 (10 AM to 5 PM on Working Days)

08018656987/09861806741 (10 am - 09 pm every day)

Contact Numbers of Site Managers, support staff, and ETG have been displayed in www.ecotourodisha.com



Activities

Activities like Cycling, Canopy Walk, Birding, Trekking, Boating, Kayaking, Burma Bridge, Selfie Points, Children Play Area Commando Tower and Jungle Safari are managed by local communities in eco-tourism destinations. Eco-guide service (person acquainted with local trees, herbs, birds, animals etc. from the community) is available in all Nature Camps. Display of wildlife movies, Souvenir Shops, Observation Points for sighting wild animals have also been developed.

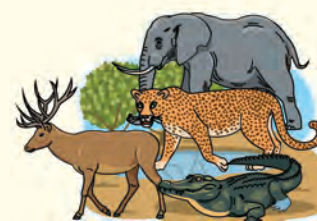






Income and Visitor footfall from 2016-17 to 2022-23

Year	Income (In lakhs)	Visitors	
		Indian	Non-Indian
2016-17	156.12	11463	36
2017-18	340.14	17108	40
2018-19	556.74	24666	106
2019-20	658.16	30685	99
2020-21	832.27	56951	11
2021-22	1051.43	70205	11
2022-23	1379.12	131969	84
2023-24 till 24 th Aug. 2023	281.17	27662	11



Income Sharing Mechanism:

Components	% Share	Purpose
ETG Wage Salary (Online release to respective Community accounts)	35 %	Shared by Management Committee of the Community towards wages
Recurring Expenses (Online release to Community account)	25 %	For day to day expenses & management of Nature Camps. (Fooding of visitors, fuel, electricity etc.)
Infrastructure Development (Online release to Community account)	10 %	Major maintenance, Improvement in infrastructures etc.
EDC Share (Online release to Community account)	10 %	For developmental works in local villages
Corpus Fund (With PCCF Wildlife for remuneration of Hospitality Experts engaged in Nature Camps etc)	20%	Salary of Hospitality Experts engaged in different Ecotourism Destinations
Total	100 %	

NB: Till last year, 10% of the gross income was being deposited as Govt revenue. From the current year, this amount is allowed by Government to be kept in the Corpus Fund for further improvement of Ecotourism activities in the State.

Community members working in different Ecotourism destinations:

Above 650 local community members are now managing 49 Ecotourism destinations all over the State & earning their livelihood, majority of them are rural women and tribals. All the community members have been trained on hospitality & other needbased capacity building training for proper management of the destinations. They play different roles in management of Nature Camps i.e., house keeping, food & beverage service, accounting, store, reception, cooking, cleaning, hygiene and eco-guide etc.







Publicity

Road shows were organized at Hyderabad, Bangalore & Guwahati and workshops were organized at New Delhi, Kolkata & Bhubaneswar in coordination with Tourism Department; Signages, Hoardings, Short video films on Wildlife and display in LED at prominent locations in the Capital City have been done and the website www.ecotourodisha.com is being updated regularly for promotion of Ecotourism.



ONGOING RESEARCH PROJECTS & AWARENESS PROGRAMMES

RESEARCH PROJECT PROPOSAL SCRUTINIZED BY RESEARCH ADVISORY COMMITTEE (RAC) DURING 2022-2023

The Research Advisory Committee (RAC) has been constituted vide this Office Order No.4623 Dt. 04.06.2015 in the State Wildlife Organisation office of the Principal Chief Conservator of Forests (Wildlife) and Chief Wildlife Warden, Odisha. Principal Chief Conservator of Forests (Wildlife) is the Chairman of this Committee. The committee will review wildlife research activities, identify priority areas for wildlife research works, scrutinize and recommend the research proposals in the wildlife sector. During 2022-23, the RAC were scrutinized and recommended following research proposals:

Sl No	Title of the Project	Date of Approval	Status
1	Species composition, stand structure and carbon storage potential of mangrove forests in river mouth habitats of Odisha.	22.04.2022	Recommended by RAC
2	Biogeography, genetic connectivity and evaluation birds in peninsular India.	22.04.2022	Recommended by RAC
3	Permission for entomological expedition in Odisha.	22.04.2022	Recommended by RAC
4	"Gems in the rocks: an integrative taxonomic revision of the <i>calodactylodes aureus</i> species complex".	22.04.2022	Recommended by RAC
5	Ecology, Behavior and Conservation of Mangrove Pitta, Odisha	22.04.2022	Recommended by RAC
6	Permission to carry out Vulture survey in various National Park and other areas in Odisha.	22.04.2022	Absent
7	Indigenous Health Practices and Forest Conservation: A Study in Similipal Biosphere Reserve.	22.04.2022	Recommended by RAC
8	Assessment of Pteridophyte diversity in Kotagarh Wildlife Sanctuary, Odisha.	27.06.2022	Recommended by RAC
9	Defining the venom composition and toxicity profiles of India's 'Big four' venomous snakes, and the development of pan-efficacious next-generation snakebite therapy.	27.06.2022	Recommended by RAC
10	Population Dynamics and Ecology of Birds of Prey in Coastal Regions of Odisha.	27.06.2022	Recommended by RAC





11	Studies on nutraceutical value of selected wild edible fruits in Chandaka-Dampara Wildlife Sanctuary.	27.06.2022	Recommended by RAC
12	Study on Diversity of Lichens in Similipal Biosphere Reserve and evaluation of their anti-microbial and anti-oxidant activity for pharmaceutical application”.	27.06.2022	Recommended by RAC
13	Evaluation of therapeutic potentials of Lichens from Similipal Biosphere Reserve, Odisha.	27.06.2022	Recommended by RAC
14	Biodiversity and Bioactivity of Mushrooms occurring in the core and buffer zone of Similipal Biosphere Reserve, Odisha.	10.11.2022	Recommended by RAC
15	Conservation of the Bilaterian Organizer: Novel studies in the Horse Shoe Crab Tachypleus gigas Muller.	10.11.2022	Recommended by RAC
16	Ecology and flock structure of sympatric social babbler in India.	10.11.2022	Recommended by RAC
17	Developing a biomass retrieval technique for tropical dry forest using SAR data.	10.11.2022	Recommended by RAC
18	Investigating the evolutionary drivers of high pseudomelanism frequency in Similipal Tigers.	10.11.2022	Recommended by RAC
19	Study on diversity of Lichens in Similipal Biosphere Reserve and Evaluation of their antimicrobial and antioxidant activity for pharmaceutical applications.	10.11.2022	Recommended by RAC
20	Development and efficacy testing of infrasonic repellent for elephant herd control”.	10.11.2022	Recommended by RAC

AWARENESS PROGRAMME

Sweet Memories of observation of different days in Photographs

A. 63rd Foundation Day (29.12.2022)





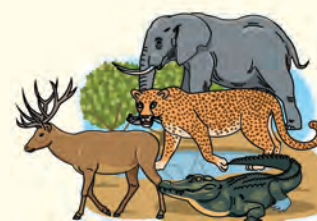
B. World Wetland Day (02.02.2023)



C. World Pangolin Day (18.02.2023)



D. World Wildlife Day (03.03.2023)





E. World Veterinary Day (29.04.2023)



F. World Environment Day (05.05.2023)



G. World Otter Day (31.05.2023)



H. World Parrot Day (31.05.2023)



I. World Crocodile Day 2023 (16.06.2023)



J. Van Mahotsav (04.07.2023)





K. World Snake Day (16.07.2023)



L. Global Tiger Day (29.07.2023)



M. World Elephant Day (12.08.2023)



N. World Rhino Day 2022 (22.09.2022)



OTHER ACTIVITIES

A. Keepers Talk in Nandankanan



B. Great Backyard Bird Count 2023





C. Cheetah Awareness Week 2022



D. Adopt-an-Animal Programme

More than 150 individuals and organizations like Indian Oil Corporation Limited, Bhubaneswar and MGM, Minerals Limited have adopted animals of Nandankanan pledging an amount of Rs. 9, 31, 700/- during the financial year 2022-23.



E. Poster Making Competition



F. Mission Life Programme



G. Internship Programme at Nandankanan



H. Zoo Volunteers Programme at Nandankanan





I. Zoo Outreach Programme at Schools



J. Sunday Bird Walk in Nandankanan



K. Herping Trail



L. Mass awareness programme for fire prevention under Similipal North Wildlife Division



Latitude: 21°30'36"

M. Debate & Painting competition among school children for awareness under Similipal North Wildlife Division



N. Awareness Programme under Mahanadi Wildlife Division



Latitude: 20°28'18"
Longitude: 84°45'16"
Elevation: 843.8±22 ft
Accuracy: 16.1 ft



CHAPTER XII

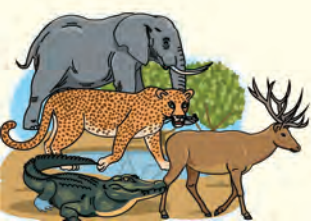
ACHIEVERS IN THE FIELD OF WILDLIFE CONSERVATION

STATE LEVEL BIJU PATNAIK WILDLIFE CONSERVATION AWARD

- The State Government of Odisha in Forest and Environment Department vide their resolution No.14585-I-Affn-6/2012-F&E dtd 03.08.2012 had approved the modalities for the "Biju Patnaik Award for Wildlife Conservation", to be presented each year in the month of October at a State Level Function to recognize the contribution of individuals/ institutions towards conservation of wildlife.
- This award is given every year to individuals or institutions operating in the State of Odisha and engaged in wildlife and biodiversity conservation, research and education. The award is given at the State Level Function as well as in the Sub-Divisional Level Function.
- The State level award consists of a certificate with cash award of Rs.2,00,000/- (Rupees two lakhs) only. Initially the cash award was Rs.50,000/-; subsequently enhanced to Rs.1,00,000/- and then to Rs.2,00,000/- during the year 2007 and 2008 respectively. The amount of cash award for Sub-Division is Rs 5000/-.

STATE LEVEL AWARDEES OF PREVIOUS YEARS ARE AS FOLLOWS

- **2022:** Award jointly given to Sri Rabindranath Sahu (for his sustained contribution Protection and Conservation of Olive Ridley Sea Turtles & Dolphins) and Sri Bikiji Nag (for his sustained contribution towards protection and conservation of wild animals ingeneral and venomous snakes in particular).
- **2021:** Shri Nandakishore Bhujabal - for his life time sustained contribution towards conservation and protection of wildlife in the state of Odisha.
- **2020:** Save Elephant Foundation Trust - focuses its massive awareness campaign, in-situ conflict resolution, zero causality of human & elephant, constitution of "Hathisathi Vahini", celebration of eco-days & Tiger/ Elephant corridor study etc. in Odisha.
- **2019:** Shri Bichitrananda Biswal - for his sustained contribution for protection and conservation of coastal biodiversity in Puri District, especially Olive Ridley Sea turtles, Dolphins, Deer, House Sparrow, Snake and Mangroves.
- **2018:** Prof. Sushil Kumar Dutta - for his sustained contribution for protection and conservation of reptiles and amphibians of the state in Odisha.



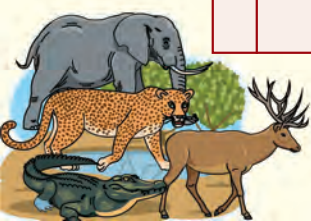
- **2017:** Shri Chakradhara Hembram - for his sustained contribution for protection and conservation of wildlife. He has played a vital role in village relocation in around Similipal Tiger Reserve, Mayurbhanj.
- **2016:** Dr. Gauranga Charan Rout - for his sustained efforts for protection and conservation of Wildlife in Odisha.
- **2015:** Shri Satrughna Rout- for his sustained contribution for protection and conservation of wildlife. He played a vital role in providing valuable information for detection of wildlife offence cases and effecting seizure and recovery of ivory, skins of tiger and leopard around Similipal Tiger Reserve.
- **2014:** Prof. Priyambada Mohanty - Hejmadi for her life time sustained contribution towards Conservation of Wildlife, especially Olive Ridley Sea turtles & Estuarine Crocodile in the State.
- **2013:** Dr. Lala Aswini Kumar Singh and Swaraj Kumar Kanhar - for their life time contribution for wildlife conservation in Odisha.
- **2012:** Shri Shyama Om Prasad Mishra-for House Sparrows for his sustained contribution for conservation of House Sparrows with own initiatives at local level to build up its dwindling population in the State.
- **2011:** Dr. Lakshmi Narayan Acharjyo and Sri Prasanna Kumar Behera for their life time contribution for wildlife conservation and protection in Odisha.
- **2010:** Sri Amarendra Lal Bose - for sustained campaigning in the print media over last forty years for conservation of wildlife, emphasizing flora and fauna of Similipal. Sri Saroj Kumar Patnaik-who made a mark nationally as a wildlife expert and a professional in the field of ex-situ management.
- **2009:** Dr. Udaya Narayan Dev-for his sustained lifetime contributions in wildlife, particularly the birds of Odisha. Dr. Sundara Narayana Patro - for sustained life-time contributions and campaign for the cause of conservation of wildlife and biodiversity of Odisha.
- **2008:** Prof. Basanta Kumar Behura -for sustained work for over sixty years on all faculties of wildlife science, i.e. Education, Research and Conservation.
- **2007:** Sri Mahabir Pakshi Surakshya Samiti of Mangalajodi - for taking exemplary initiatives for bird conservation in and around Chilika lagoon.
- **2006 :** The Peacock Protection Committee, Ganjam- for collective effort of villagers that have made the peafowl sustain and thrive in the Pakidi hill area.
- **2005:** Blackbuck Management Committee, Ganjam - for outstanding contribution to the cause of protection of blackbucks, and for the larger cause of spreading the wildlife conservation ethos.



BIJU PATNAIK WILDLIFE CONSERVATION AWARD 2023

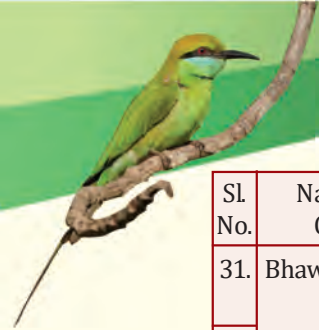
Awardees list for Sub-Divisional Level Biju Patnaik Award- 2023

Sl. No.	Name of Circle	Name of District	Name of Forest Division	Name of Sub-Division	Name of selected candidate
1.	Bhubaneswar	Khordha	Chilika (WL)	Khordha	Sri Akshya Kumar Mishra, Lecturer in History & Associate NCC Officer, Balugaon College, Balugaon
2.			City Forest	Bhubaneswar	Dr. Manas Ranjan Senapati, 60/61, Laxmivihar, Sachibalaya Marg, Bhubaneswar , Patia
3.		Nayagarh	Nayagarh	Nayagarh	Sri Nihar Ranjan Dash, General Secretary, Centre for Youth & Social Welfare, Fetegarh
4.		Puri	Puri (WL)	Puri	Sri Makardhwaja Kandi, S/o- Sri Chandramani Kandi, At/Po- Chiteswari, Ps-Konark, Dist- Puri, Pin-752111
5.		Jagatsinghpur	MFD (WL) Division, Rajnagar	Jagatsinghpur	Sri DebaKalyan Mahapatra, At-Kalingapada, Atharabanki, Paradeep, Pin-754120
6.		Kendrapara	MFD (WL) Division, Rajnagar	Kendrapara	Sri Pradip Kumar Nayak, At-Bandhapara, Po- Madanpur, Ps-Rajnagar, Dist- Kendrapara
7.		Bhadrak	Bhadrak (WL)	Bhadrak	Sri Rabindra Kumar Sahoo, S/o- Babaji Charan Sahoo, At/Po- Baro, Via- Tihidi, Dist- Bhadrak
8.	Baripada	Mayurbhanj	Baripada	Baripada	Sri Niranjan Ram, S/o- Dinabandhu Ram At- Patharchatia, Po- BainchaNuagaon, Ps-Rasgovindpur, Dist- Mayurbhanj
9.			Baripada	Kaptipada	Sri Pradumn Kumar Das, S/o- Ganeswar Das, At- Udala, NAC Ward No.09, Ps-Udala, Dist- Mayurbhanj
10.			Rairangpur	Bamanghaty	Sri Pradipta Kishore Kabi, Ward No.15, At/Po- Rairangpur, Dist- Mayurbhanj, Mob-9437294530
11.			Similipal (North)	Panchpir	Sri Maheswar Mohanta, At/Po- Gurguria, Ps- Jashipur, Dist-Mayurbhanj, Pin-757084
12.			Keonjhar (WL)	Anandapur	Sri Chandana Kumar Panda, At/Po- Inchol, Via- Hatadihi, Dist-Keonjhar, Pin-758083.
13.	Balasore	B a l a s o r e Wildlife	Nilagiri	Sri Sarat Kumar Mandal, S/o-Banamali Mandal, At-Saralia, Po-Soro, Dist-Balasore	
14.	Koraput	Koraput	Koraput	Koraput	Sri Laxman Nayak, S/o- Haladhar Nayak, At- Chandalguda, Po-Malkangiri, Dist-Koraput, Pin-764020

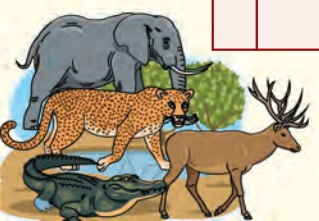


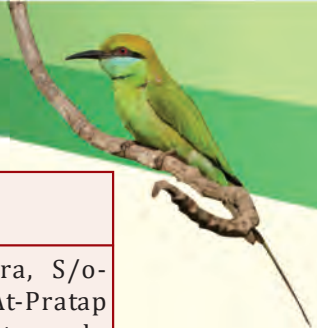
Sl. No.	Name of Circle	Name of District	Name of Forest Division	Name of Sub-Division	Name of selected candidate
15.		Koraput	Jeypore	Jeypore	Sri Dambrudhar Majhi, S/o- Sri Ramachandra Majhi, At-Dholpur, Po-Doraguda, Ps-Boipariguda, Dist-Koraput
16.		Malkangiri	Malkangiri	Malkangiri	Sri Madhab Kusparia, S/o- Pati Kusparia, At/Po-Chitakonda, Ps-Chitrkonda, Dist-Malkangiri
17.		Nabarangpur	Nabarangpur	Nabarangpur	Sri NakulaBhatra, Animal Keeper, DeerPark, Papadahandi, Nabarangpur Forest Division, At/Po/Dist-Nabarangpur.
18.		Rayagada	Rayagada	Rayagada	Sri Purna Chandra Patra, S/o- Late Gopinath Patra, At/Po-Gunupur, Dist-Rayagada.
19.	Angul	Angul	Angul	Talcher	Sri Krushna Chandra Sahoo, S/o-Fakir Sahoo, At/Po- Derang, Ps-Kaniha, Dist-Angul
20.		Angul	Athmallik	Athmallik	Sri Uttam Kumar Matiary, S/o-Raghu Matiary, At-Icchapur, Po/Ps-Handapa, Dist-Angul
21.		Jajpur	Cuttack	Jajpur	Dr. Mihir Ranjan Pattnaik, Bramhabiraja Sevashrama, At-Kumbhanagara, P.o-Unchhabli, Dist- Jajpur
22.		Cuttack	Athgarh	Athgarh	Sri Indramani Swain, S/o Phakira Swain, At- Haridapasi, Po-Achalakote, Ps-Tigiria, Dist- Cuttack , Pin-754030
	Athgarh		Banki	Sri Jitendra Kumar Khatura,S/o-Harihar Khatura, At- Malabiharpur, Po-Kadalibadi, Dist-Cuttack.	
	Athgarh		Cuttack	Anaya Kumar SamalS/o- Fakir Mohan Samal, At/Po- Oranda, Dist-Cuttack	
23.		Dhenkanal	Dhenkanal	Dhenkanal	Sri Tusar Mansingh, S/o-Rutuporna Mansingh, At-Amalapada, Po/Dist-Dhenkanal, Pin-759001
	Hindol		Arabinda Majhi, S/o-Late Chakradhar Majhi, At/Po-Bampa, Ps-Rasol, Dist-Dhenkanal, Pin-759025		
24.	Rourkela	Sundargarh	Rourkela	Panposh	Mr. M N. Anandbabu
25.		Deogarh	Deogarh	Pallahara	Sri Gouranga Kandal
26.		Deogarh	Deogarh	Deogarh	Sri Kusal Tirkey
27.		Sundargarh	Bonai	Bonai	Sri Jenamani Sahu
28.		Keonjhar	Keonjhar	Keonjhar	Sri Satyanarayan Sahu
29.		Keonjhar	Keonjhar	Champua	Sri Pukam Munda
30.		Sundargarh	Sundargarh	Sundargarh	Sri Baikuntha Kalo





Sl. No.	Name of Circle	Name of District	Name of Forest Division	Name of Sub-Division	Name of selected candidate
31.	Bhawanipatna	Kalahandi	K a l a h a n d i (North)	Bhawanipatna	Sri Rabindra Kumar Pattnaik At/Po-Bhawanipatna, Dist- Kalahandi,
32.		Bolangir	Bolangir	Bolangir	Sri Kapileswar Naik, At- Kapileswar Naik, At- Budelguma, Po- Mahalei, Via- Jarasingha, Ps- Deogaon, Dist- Bolangir.
33.		Bolangir	Bolangir	Patnagarh	Sri Jyoti Ranjan Panda, At/Po- Turla, Dist- Bolangir, Pin-767028
34.		Bolangir	Bolangir	Titilagarh	Sri Kanhu Pradhan, At- Nanjhar, Po- Manigaon, Ps-Titilagarh, Dist- Bolangir
35.		Subarnpur	Subarnpur	Sonepur	Sri Jyotiraditya Pinaki Panda, S/o- Harishankar Panda, At-Thanapati Pada, Po/Dist- Subarnpur
36.		Subarnpur	Subarnpur	Birmaharajpur	Sri Debaraj Jagadala, S/o-Jagadish Jagadala, At-Puleswar, Po-Kenjhiriapali, Ps-Birmaaharajpur, Dist-Subarnapur
37.		Nuapada	Khariar	Nuapada	Sri Arun Biswal, At-Banjari Vihar, Po- Tarbod, Dist-Nuapada
38.	Sambalpur	Sambalpur	Rairakhhol	Redhakhhol	Sri Sunil Pradhan, S/o-Basheswar Pradhan, At- Bindpur, P.o-Jamujori, P.s-Naktideul, Dist- Sambalpur
39.		Sambalpur	Bamra (WL)	Kuchinda	Sri Bipin Chandra Bilhar, At- Khairidihi, Ps-Jamankira, Dist-Sambalpur
40.		Jharsuguda	Jharsuguda	Jharsuguda	Sri Madhusudan Kandara, At- Ward No. 13. Debadihi, P.o - Jharsuguda, Dist- Jharsuguda
41.		Bargarh	Hirakud (WL)	Bargarh	Sri Baishnab Bhoi, Teacher (Retired), S/o- Late Mahadev Bhoi, At/Post- Kapasira, Dist- Bargarh Pin-768045
42.		Bargarh	Bargarh	Padampur	Sri Bibhuti Bhusan Munda, At- Georgegarh, Po- Paikma, Dist-Bargarh , Pin-768039
43.	Berhampur	Kandhamal	Phulbani	Phulbani	Team Humanity Trust, Kandhamal At- Gopalsahi, Po/Ps- Phulbani , Dist- Kandhamal, Pin-762001, Mob-9438212234
44.		Ganjam	Berhampur	Chatrapur	Shri Ashis Kumar Das, At- Kshetriyabarpur, Via-Gangapur, Dist- Ganjam, Pin-761123, Mob-8327783464
45.		Ganjam	Berhampur	Berhampur	Sandeep Kumar Sethi, S/o- Late Arjuna Sethi, At- Laxmi Nursingha Street Lane- 2, Dist- Ganjam, Odisha, Pin-760006, Badabazar, P.O- Nabeen Post, Mob- 7853907015

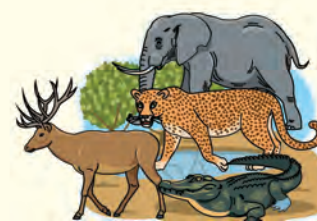




Sl. No.	Name of Circle	Name of District	Name of Forest Division	Name of Sub-Division	Name of selected candidate
46.		Ganjam	Ghumsur South Division	Bhanjanagar	Mr. Gouri Shankar Mishra, S/o-Purusottam Mishra, At-Pratap Dhananjayapur Sasan, Po-Antarapada, Via- Balipadar, Dist- Ganjam, Mob-7750007872
47.		Kandhamal	Balliguda	Balliguda	Sri Kausik Sahu, At/Po- Balliguda, Dist-Kandhamal, Odisha, Pin-762103 Mob-9437423214
48.		Boudh	Boudh	Boudh	Karadi Van Surakha Samiti, At/Po-Karadi, Ps-Boudh, District-Boudh
49.		Gajapati	Parlakhemundi	Gajapati	Sri Sanjay Kumar Mishra, S/o- Surendra Nath Mishra, At/Po-Budura, Ps-Kashinagar, District-Gajapati



State Level Biju Patnaik Award for Wildlife Conservation, 2022



CHAPTER XIII

PROJECT & SCHEMES UNDER STATE WILDLIFE ORGANISATION

The State Wildlife Headquarters, Odisha utilizes funds from different schemes available under administrative and programme expenditure.

A. Administrative Expenditure: These expenditures are largely committed expenditure that are generally guided by certain Acts/Rules and placed by the administrative Department before the Finance Department for approval and allotment of the agreed funds. Such expenditure broadly takes care of establishment, operation & maintenance cost of staff, feeding & medicine expenses for zoo animals, various maintenance activities and payment of compassionate grant to victims affected by wildlife depredation. During FY-2022-23 Rs.10635.36 lakhs was spent under this head and the proposed expenditure under this head for FY-2023-24 project at Rs.11188.04 lakhs.

B. Programme Expenditure: These expenditures relate to different wildlife management and conservation related activities that are placed by the Administrative Department after due consultation and concurrence of the Planning & Coordination Department before the Finance Department for approval and allotment of the agreed funds. These schemes can broadly be classified into three major types based on the ratio of funding pattern contributed by the Centre & the State Government and are detailed below:

1. **State Sponsored Schemes:** 100% funds under this scheme is sponsored by the State Govt. Four such schemes namely Development of Ecotourism, Development of beautification of Nandankanan Zoo, Wildlife Protection & conservation measure and management of Elephant & corridors are being implemented by the State Wildlife Organisation. All these schemes are routed through Odisha State Treasury and handled by i-FMS Portal of the State Treasury.
2. **Centre Sponsored Schemes:** 60% funds under this scheme are sponsored by the Centre whereas corresponding balance 40% matching funds are provided by the State Govt. Under these schemes annual plan of operation (APO) is submitted by the State Govt. to respective scheme implementing division of Govt. of India and after the approval of the APO amount money is released in 4 equated installments of 25% each. Though 5 Schemes namely Project Elephant, Project Tiger, Integrated Development of Wildlife Habitat, Development of Zoos and management of Bio-spheres were being operated in the State but since last 2 years funds under the first three schemes only are being received from Govt. of India. Further, the schemes of Project Tiger & Project Elephant have been merged to one scheme w.e.f. 2023-24 FY and the same will be known as Project Tiger



& Project Elephant. All these schemes are routed from Odisha State Treasury to State Nodal Account (SNA) opened in any scheduled Commercial Bank recognized by Financial Department (and in this case, ICICI Bank) and is handled by PFMS Portal of Govt. of India.

3. Central Sector Scheme: 60% funds under this scheme are sponsored by the Centre whereas corresponding balance 40% matching funds are provided by the State Govt. Under these schemes annual plan of operation (APO) is submitted by the State Govt to respective scheme implementing division of Govt. of India and after the approval of the APO amount money is released in 4 equated installments of 25% each. Only scheme namely conservation & management of mangroves is being implemented under this type of scheme where, only the central share is handled under EAT module of PFMS Portal whereas the State share is transacted through i-FMS of Odisha State Treasury.

The details like name of the scheme, its budget code, brief scope of work under each scheme, budget grants of 2022-23 FY vis-à-vis expenditure incurred and the proposed budget estimate for 2023-24 FY is furnished below in separate tables.

PROJECTS AND SCHEMES.....

State Wildlife Headquarters, Odisha has different schemes for wildlife management which are funded under Administrative Expenditure and Programme Expenditure.

Tables showing the details of Budget provision, Funds released by Government of India (GOI), sanctioned by State Govt. and Expenditure incurred under Administrative Expenditure (EOM) & Programme Expenditure in respect of Wildlife Organization during 2022-23.

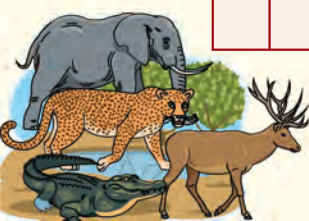
Table-1: Budget Grants for FY-2022-23 and FY 2023-24.

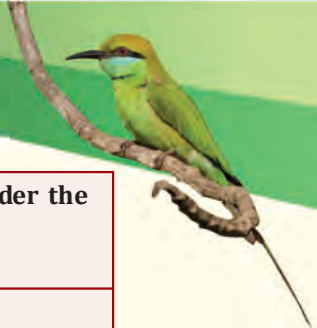
Sl. No.	Code No.	Name of the Scheme	Budget Grants FY-2022-23	Budget for 2023-24*	Measure activities under the scheme
1	2	3	4	5	6
1		Administrative Expenditure (EOM)	10635.36	11193.28	Establishment, Operation & Maintenance Cost, Feeding and Medicine for Zoo animals, Maintenance activities, payment of Compassionate Grant
Programme Expenditure					
State Sponsored Scheme					
1	2316	Development of Eco-Tourism	3000.00	3000.00	Development of Eco-tourism facilities like construction of Eco-tourism cottages, Landscaping, Gardening at eco-tour sites, providing livelihood support to local people dependant on Protected Areas.





Sl. No.	Code No.	Name of the Scheme	Budget Grants FY-2022-23	Budget for 2023-24*	Measure activities under the scheme
2	3128	Wildlife protection and conservation measure	4950.01	5087.00	Conservation and protection of wildlife and their habitats within / outside Protected Areas, Protection and Conservation of Olive Ridley Sea Turtle, Anti-poaching activities, Deployment of Protection Squads, Celebration of Wildlife Week and provision for Biju Patnaik Wildlife Award, Development and upkeep of Deer Parks, Creation and Renovation of Water bodies.
3	3173	Management of Elephant and Corridor	1800.00	1900.00	Protection and Management of Elephant and their habitats, Engagement of Elephant Squads, Construction of Watch Towers, Permanent Protection Camp, Firefighting Squads, Engagement of Gaja Saathi.
4	2216	Development and Beautification of Nandankanan Zoo	1000.00	1200.00	Devt and beautification of Nandankanan Zoo
Total State Sector			10750.01		
Centrally Sponsored Schemes					
1	0361	Elephant Management Project	1400.00	1400.00	Protection and Conservation of Elephant and their habitats, Engagement of Elephant Squads, Firefighting Squads, provision of Solar lights in forest fringe villages, Creation and renovation of water bodies
2	2313	Integrated Development of Wildlife Habitats	2280.10	2500.00	Protection of Wildlife and their habitat in PAs, Outside PAs i.e. Protection and Conservation of Blackbuck, Olive Ridley Sea Turtle, Dolphins, Crocodiles, Creation and Renovation of Water bodies, Deployment of Firefighting Squad, Maintenance of Forest Road, Veterinary Care, Health Camp, Creation and maintenance of Saltlick, SMC activities, Meadow development
3	3414	Development of Zoos	100.00	200.00	No fund sanctioned
4	3590	Project Tiger a) Satkosia Tiger Reserve			Protection and Conservation of Tiger and their habitat in Satkosia and Similipal Tiger Reserve, Deployment of squads, Salaries to STPF





Sl. No.	Code No.	Name of the Scheme	Budget Grants FY-2022-23	Budget for 2023-24*	Measure activities under the scheme
		b) Similipal Tiger Reserve Total -3590-Project Tiger	3500.00	3000.00	
5	1282	Similipal Bio-sphere Reserve	1000.00	1000.00	No Fund Sanctioned
Total CSS			8280.10		
Central Sector Scheme (CSS)					
6	0175	Conservation and management of Mangroves	250.00	300.00	Conservation, protection and regeneration of mangrove forest on the river mouth of coastal districts to protect human habitation from natural calamities in Devi-Kadua, Bhitarkanika and Mahanadi Delta areas.
Total Programme Expenditure			19030.11	19587.00	

*This does not include provisions sought for in supplementary budget.



Check dam under Dhenkanal Forest Division



Salt lick management, Similipal North Division

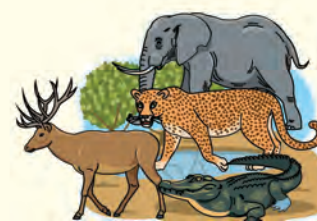


Table-2

Budget provision, Funds released by GoI, sanctioned by State Govt and Expenditure incurred under Programme Expenditure in respect of Wildlife Organisation during 2022-23. (Rs. in lakh)

Sl. No.	Name of the Scheme		Budget provision	Released by Govt. of India including adjustment of unspent balance of previous year	Sanctioned by State Govt.	Expenditure incurred
1	2		3	4	5	6
PROGRAMME EXPENDITURE						
WILDLIFE SECTOR						
State Sector Scheme (SSS)						
1	2316	Development of Eco-Tourism	3000.00	0	3000.00	2378.83
2	3128	Wildlife protection and conservation measurem	4950.01	0	4950.01	4825.63
3	3173	Management of Elephant and Corridor	1800.00	0	1800.00	1785.67
4	2216	Development and beautification of Nandankanan Zoo	1000.00	0	666.66	666.66
Total SSS			10750.01	0.00	10416.67	9656.80
Central Sector Scheme (CSS)						
5	0361	Elephant Management Project	1400.00	269.4195	449.0325	442.62
6	2313	Integrated Development of Wildlife Habitats	2280.10	1026.039	1710.0649	1423.84
7	3414	Development of Zoo	100.00	0	0	0.00
8	3590	Project Tiger				
		a) Satkosia Tiger Reserve		300.00	548.380	542.71
		b) Similipal Tiger Reserve		708.73	1349.400	1340.54
Total Project Tiger			3513.50	1008.73	1897.780	1883.25
9	1282	Similipal Bio-sphere Reserve	1000.00	0	0	0.00
10	0175	Conservation and management of Mangroves	250.00	56.50	37.66362	77.71
Total CSS			8543.60	2360.68	4094.54	3827.42
Grand Total			19293.61	2360.68	14511.21	13484.22



WILDLIFE MANAGEMENT ACTIVITIES UNDER CAMPA APO: 2022-23

There was financial target of **Rs. 22152.00 lakh** has been proposed in CAMPA APO during 2022-23 for implementation of different activities to be under taken for Wildlife Management as per details shown below in Table-I

TABLE-I

(Rs. In lakh)

Activities	Approved financial outlay	Financial Achievement
A-Wildlife Management (80 % NPV)		
Protection and Anti-Depredation Activities	1575.00	853.46
Forest Fire Prevention and Control operations	1144.00	1047.73
Improvement of Wildlife Habitat	3137.00	2697.58
Establishment, operation and maintenance of animal rescue centre and veterinary treatment facilities for wild animals	1400.00	294.33
Management of biological diversity and biological resources	700.00	677.93
Voluntary Relocation of Villages from Protected Areas and Tiger Reserve	6500.00	6331.60
Total (80 % of NPV)	14456.00	11902.63
Wildlife Management (20 % NPV)		
Strengthening of Communication facilities for Protection of Wildlife	350.00	228.13
Construction & Maintenance of Infrastructure for Protection of Wildlife	982.00	896.30
Publicity & Awareness Programmes	100.00	52.67
Total (20 % of NPV)	1432.00	1177.10
B - Implementation of Regional Wildlife Management Plan for the State (RWLMP)	1500.00	668.23
C - Implementation of Site Specific Wildlife Conservation Plan	4764.00	4040.68
Grand Total {A(80 % + 20%)+B+C}	22152.00	17788.64



WILDLIFE MANAGEMENT ACTIVITIES UNDER CAMPA APO: 2023-24

There is financial target for **Rs.23360.94 lakh** has been proposed in CAMPA APO: 2023-24 for implementation of different activities to be under taken for Wildlife Management as per details shown below in Table-II

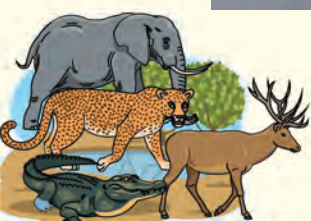
TABLE-II

(Rs. in lakhs)

Activities	Recommended by State	Approved financial outlay
A-Wildlife Management (80 % NPV)		
Protection and Anti-Depredation Activities	2256.00	2000.00
Forest Fire Prevention and Control operations	967.61	347.00
Wildlife Habitat Restoration and Improvement	4770.59	987.10
Management of biological diversity and biological resources	1972.40	100.00
Voluntary Relocation of Villages.	5000.00	5000.00
Total (80 % of NPV)		8434.10
Wildlife Management (20 % NPV)		
Strengthening of Communication facilities for Protection of Wildlife	950.00	370.00
Total-(20 % of NPV)	2000.00	370.00
B- Implementation of Regional Wildlife Management Plan for the State	2000.00	2000.00
C- Implementation of Site Specific Wildlife Conservation Plan	8723.89	8724.00
Grand Total {A(80 % + 20%)+B+C}	28790.49	19528.10



Flock of Indian Skimmer



MAJOR EVENTS/INTERVENTIONS FOR BETTERMENT OF WILDLIFE MANAGEMENT SINCE LAST YEAR


- A. The rates of compassionate grants for various types of deprecations by wild animals as provided under the Wildlife (Protection) (Odisha) Rules, 1974 such as crop damage/ house damage/ cattle kill/ human kill/ human injury, have been substantially enhanced vide Government Notification No. 9128 dated 03.05.2023. The last revision of such rates had since been done in the year 2017 for Human kill, 2014 for human injury, 2011 for cattle kill & house damage and 2012 for crop damage.

GOVERNMENT OF ODISHA
FOREST, ENVIRONMENT AND CLIMATE CHANGE DEPARTMENT

NOTIFICATION
Bhubaneswar, Dated the 03.05.23
No. FE-WL-WLF-0037-2017/ 9128 /FE&CC.,

In exercise of the powers conferred under Rule 45-KK of the Wildlife (Protection) (Odisha) Amendment Rules, 2023, the State Government do hereby decide the amount of compassionate payment for different types of deprecation as follows.

Sl. No.	Type of deprecation	Provision under Wildlife (Protection) (Odisha) Rules, 1974	Compassionate payment
1	Human kill	45-AA	6.0 lakh
2	Human injury (permanent)	45-BB	a. ₹1.5 lakh in case of disability less than 60 % b. ₹2.5 lakh in case of disability more than 60 %
3	Human injury (temporary)	45-BB	a. ₹10,000.00 + free treatment in Government hospital, if the hospitalisation is more than 1 week. b. ₹5000.00 + free treatment in Government hospital, if the hospitalisation is less than 1 week.
4	Cattle kill (bullock/ cow/ buffalo)	45-CC	a. ₹37500.00 for Cow & Buffalo. b. ₹32000.00 for Bullock.
5	Cattle kill (calf)	45-CC	₹5000.00
6	Cattle kill (Sheep/ goat)	45-CC	₹4000.00
7	Cattle kill (Lamb)	45-CC	₹1500.00


FE-WL-WLF-0037-2017/5/2023



8	Crop damage (paddy & cereals)	45-EE	₹20000.00 per Ac
9	Crop damage (cash crop)	45-EE	₹25000.00 per Ac
10	House damage (part)	45-FF	₹10000.00
11	House damage (full)	45-FF	₹20000.00 + Biju Pucca Ghar or cash equivalent in lieu Biju Pucca Ghar by the Department.

By order of the Governor

[Signature]
3/5/2023

Additional Chief Secretary to Government,
Forest, Environment & Climate Change Department

Memo. No 9129 /FE&CC, Dated. 03.05.23

Copy forwarded to Director, Printing, Stationary and Publication, Odisha Cuttack with request to issue this Notification in the extraordinary issue of the Odisha Gazette and supply 200 (two hundred) copies to the Department.

[Signature]

OSD -cum - Special Secretary to Government.

Memo. No 9130 /FE&CC, Dated. 03.05.23

Copy along with soft copy forwarded to Gazette Cell, Commerce & Transport Department, Odisha Secretariate, Bhubaneswar for information and necessary action.

[Signature]

OSD -cum - Special Secretary to Government.

Memo. No 9131 /FE&CC, Dated. 03.05.23

Copy forwarded to P.S to Hon'ble Chief Minister of Odisha for kind information of Hon'ble Chief Minister.

[Signature]

OSD -cum - Special Secretary to Government.

Memo. No 9132 /FE&CC, Dated. 03.05.23

Copy forwarded to P.S to Hon'ble Minister, Forest, Environment & Climate Change for kind information of Hon'ble Minister, FE & CC .

[Signature]

OSD -cum - Special Secretary to Government.

FE-WL-WLF-0037-2017/5/2023



Memo. No 9133 /FE&CC, Dated. 03.05.23

Copy forwarded to PS to Chief Secretary, Odisha for kind information of Chief Secretary.

ds/15/2023

OSD -cum - Special Secretary to Government.

Memo. No 9134 /FE&CC, Dated. 03.05.23

Copy forwarded to P.S to Additional Chief Secretary to Government, Forest, Environment & Climate Change Department for kind information of Additional Chief Secretary.

ds/15/2023

OSD -cum - Special Secretary to Government.

Memo. No 9135 /FE&CC, Dated. 03.05.23

Copy forwarded to the PCCF & HoFF, Odisha, Bhubaneswar/ PCCF (WL) & CWLW, Odisha, Bhubaneswar/ PCCF (KL), Odisha/ All RDCs/ All RCCFs/ All Collectors/ All DFOs for information and necessary action.

ds/15/2023

OSD -cum - Special Secretary to Government.

Memo. No 9136 /FE&CC, Dated. 03.05.23

Copy forwarded to All Departments of Government / All Heads of Department for information and necessary action.

ds/15/2023

OSD -cum - Special Secretary to Government.

Memo. No 9137 /FE&CC, Dated. 03.05.23

Copy forwarded to the Head, State Portal, I.T. Centre, Odisha Secretariat, Bhubaneswar for information and necessary action. He is requested to upload this Notification in the website of Forest, Environment & Climate Change Department immediately for information of all concerned.

ds/15/2023

OSD -cum - Special Secretary to Government.

FE-WL-WLF-0037-2017/5/2023



- B. The provisions U/s 197(3) of Criminal Procedure Code, 1973 regarding use of fire arms shall be applicable to the forest officials such as Forest Guard, Forester, Deputy Ranger, Range Officer, ACF, SDFO, Dy. CF, DFO, Deputy Director and RCCF, Field Director any other Forest Officers in the State who are charged with maintenance of public order relating to forest and wildlife protection, conservation and management.

The Odisha Gazette

EXTRAORDINARY
PUBLISHED BY AUTHORITY

No. 1623 CUTTACK, THURSDAY, JULY 6, 2023/ASADHA 15, 1945

FOREST, ENVIRONMENT & CLIMATE CHANGE DEPARTMENT

NOTIFICATION

The 5th July 2023

No. 13915—FE-WL-WLF-0015/2023-FE & CC.—Whereas the Government of Odisha, being conscious of the vulnerability of Forest land and Forest based resources in forest area as well as wildlife in Protected and Reserved Forest areas of the State to mounting threats to their conservation, protection and existence have decided to arm forest personnel of the State with fire arms ;

And whereas, the Government of Odisha is aware that the use of fire arms in discharge of their mandated duty and responsibility, may expose forest personnel to vexatious criminal proceedings and that there is need to provide them immunity from prosecution without prior sanction ;

Now, therefore, in exercise of the powers conferred by sub-section (3) of Section 197 of the Code of Criminal Procedure, 1973 (2 of 1974) and all other powers enabling it in that behalf, the Governor of Odisha is hereby pleased to direct that :—

- (a) the provisions contained under sub-section-(2) of Section 197 of CrPC shall apply to all the Forest Guards, Foresters, Deputy Forest Range Officers, Forest Range Officers, Assistant Conservators of Forests, Sub-Divisional Forest Officers, Deputy Conservators of Forests, Deputy Directors, Divisional Forest Officers, Regional Chief Conservators of Forests, Field Directors and any other Forest Officers in the State who are charged with maintenance of public order relating to forest and wildlife protection, conservation and management.
- (b) Whenever firing is resorted to by the forest personnel mentioned in the Clause (a) above, each such incident shall be enquired into by an Executive Magistrate of the locality; and any proceedings including institution of a criminal case of any nature and / or effecting an arrest shall be initiated by the Police, only if it is held, as a result of the Magisterial Enquiry that the use of fire arms has been unnecessary, unwarranted and excessive and further that such Magisterial Enquiry report has been accepted by the State Government.

By order of the Governor

SATYABRATA SAHU

Additional Chief Secretary to Government

Printed and Published by the Director, Directorate of Printing, Stationery & Publication, Odisha, Cuttack-10
Ex. Gaz. 908—173+200



- C. For strengthening of protection activities in Similipal Tiger Reserve, Government have constituted a Joint Task Force consisting of forest and police officials with total of about 200 members.

**GOVERNMENT OF ODISHA
FOREST, ENVIRONMENT AND CLIMATE CHANGE DEPARTMENT**

NOTIFICATION

Bhubaneswar, Dated the *1st Aug 2023*

No.FE-WL-WLF-0022-2023 / 16064 / FE & CC, In pursuance of the decision taken in the meeting held on 22nd June, 2023 under the Chairmanship of the Chief Secretary, Odisha on strengthening of protection measures in Similipal Tiger Reserve, it is decided to set up Joint Task Force (JTF) under the Chairmanship of the Field Director, Similipal Tiger Reserve (STR) by comprising of both Forest & Police personnel with 1 (one) company of Armed police Constabulary .

Accordingly , after careful consideration of the proposal of the PCCF (Wildlife) and Chief Wildlife Warden, Odisha, conceptualized in consultation with the IGP, East Zone, Balasore; S.P, Mayurbhanj; DFO, Baripada and the Deputy Directors of Similipal North & South Wildlife Divisions, the Government have been pleased to set up the Joint Task Force (JTF) under the Chairmanship of the Field Director, Similipal Tiger Reserve (STR) with the following composition and Terms of Reference (ToR).

(A) Composition of Joint Task Force (JTF)

Field Director, Similipal Tiger Reserve cum RCCF, Baripada	Chairman
DFO, Baripada Forest Division	Member
DFO, Karanjia Forest Division	Member
DFO, Rairangpur Forest Division	Member
Deputy Director, Similipal North WL Division	Member
Additional SP/ DSP (Operations) Mayurbhanj	Member
ACF, Similipal South WL Division (Intelligence)	Member
Deputy Director, Similipal South WL Division	Member Convener

It may co-opt any further experts/ Civil Society groups/ scientific community/ any individuals for discharge of duties and responsibilities.

(B) Police personnel to be attached to Joint Task Force (JTF):

Designation	Number of personnel	Remarks
One Company of armed constabulary	100	One Company (3 platoons) to be deployed by DGP and to have personnel of different ranks as per standard norms
Total	100	[one company (3 platoons)]



FE-WL-WLF-0022-2023/1/2023



NB: Disciplinary and administrative control will rest with SP, Mayurbhanj whereas operational control will be vested with the Company Head who in consultation with the Field Director/ JTF shall deploy the force.

(C) Forest personnel to be attached to Joint Task Force (JTF)

Designation	Number of personnel	Remarks
Range Officer / Dy RO	3	To be deployed by the Field Director from STR / Baripada
Forester	6	
Forest Guards	81	FGs of existing Similipal Tiger Protection Force will work under JTF
Total	90	

NB: Disciplinary, administrative and operational control will be vested with the Field Director and/or officers authorized by him. Further, the Field Director shall deploy the personnel duly keeping the JTF informed.

(D) Terms of Reference of the Joint Task Force (JTF):

- To collect intelligence and identify people holding illegal arms and ammunitions in fringe/ buffer villages of Similipal Tiger Reserve and prepare a database.
- To take comprehensive action involving forest and police personnel in de-weaponing all the illegally acquired weapons in the fringe and buffer villages of Similipal Tiger Reserve.
- To effectively deploy the force to counter any armed poachers inside Similipal Tiger Reserve.
- To deploy Forest and Police personnel at susceptible anti-poaching camps/ sensitive areas for regular patrolling.
- To provide capacity building to forest personnel in the form of training on the use of fire arms as well as in dealing with armed poachers inside the forest area.
- To take any further measures as may be necessary for protection of Similipal Tiger Reserve and its wild life.

By order of the Governor,

Additional Chief Secretary to Govt.

FE-WL-WLF-0022-2023/1/2023



Memo No. 16065 /FE & CC, Dated. 01 . 08 . 23

Copy forwarded to the Director, Printing, Stationery & Publication, Odisha, Cuttack for information and necessary action. He is requested to publish the order in the Odisha Gazette and supply 200 copies to Forest, Environment & Climate Change Department for record.


1.8.2023
Additional Secretary to Government.

Memo No. 16066 /FE & CC, Dated. 01 . 08 . 23

Copy submitted to PS to Hon'ble Chief Minister, Odisha for kind information of Hon'ble Chief Minister.


1.8.2023
Additional Secretary to Government.

Memo No. 16067 /FE & CC, Dated. 01 . 08 . 23

Copy submitted to PS to Hon'ble Minister, Forest, Environment & Climate Change for kind information of Hon'ble Minister.


1.8.2023
Additional Secretary to Government.

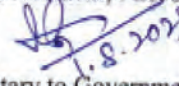
Memo No. 16068 /FE & CC, Dated. 01 . 08 . 23

Copy forwarded to OSD to Chief Secretary, Odisha for kind information of Chief Secretary.


1.8.2023
Additional Secretary to Government.

Memo No. 16069 /FE & CC, Dated. 01 . 08 . 23

Copy forwarded to Additional Chief Secretary to Government, FE&CC Department for kind information of Additional Chief Secretary.


1.8.2023
Additional Secretary to Government.

Memo No. 16070 /FE & CC, Dated. 01 . 08 . 23

Copy forwarded to Additional Chief Secretary to Government, Home Department for kind information and necessary action.


1.8.2023
Additional Secretary to Government.


Memo No. 16071 /FE & CC, Dated. 01 . 08 . 23

Copy forwarded to the PCCF & HoFF, Odisha/ PCCF (Wildlife) & Chief Wildlife Warden, Odisha for information and necessary action.


1.8.2023
Additional Secretary to Government.

FE-WL-WLF-0022-2023/1/2023





Memo No. 16072 /FE & CC, Dated. 01.08.23


Copy forwarded to Director General of Police (DGP), Odisha for information and necessary action.

He is requested to provide required number of police officers of different ranks to act as members of the Task Force.


1.8.2023
Additional Secretary to Government.

Memo No. 16073 /FE & CC, Dated. 01.08.23

Copy forwarded to All Departments / all RCCFs/ All Collectors / all Superintendent of Police / all DFOs for information and necessary action.


1.8.2023
Additional Secretary to Government.


Memo No. 16074 /FE & CC, Dated. 01.08.23

Copy forwarded to all members of Joint Task Force for information action and necessary action.


1.8.2023
Additional Secretary to Government.

Memo No. 16075 /FE & CC, Dated. 01.08.23

Copy forwarded to the Head State Portal, IT Department / NIC, Bhubaneswar for information and necessary action/ 20 spare copies to Guard file.


1.8.2023
Additional Secretary to Government.

FE-WL-WLF-0022-2023/1/2023



- D. Similipal-Hadgarh-Kuldiha traditional elephant corridor has been declared as Conservation Reserve U/s 36A of the Wildlife (Protection) Act. This is the first Conservation Reserve of the State.

GOVERNMENT OF ODISHA
FOREST, ENVIRONMENT & CLIMATE CHANGE DEPARTMENT

NOTIFICATION
Dated Bhubaneswar the 20.01.23

No.FE-WL-WLF-0011-2022/ 1166 /FE&CC, **WHEREAS**, Similipal- Hadgarh – Kuldiha is the Traditional Elephant Corridor linking rich biodiversity of Similipal, Hadgarh and Kuldiha Wildlife Sanctuaries. The traditional corridor allows wildlife movement from one habitat to another to facilitate even gene flow between different populations. This landscape together with such flora and fauna needs further protection measures.


AND WHEREAS, after having consultation with local communities, it is felt necessary to conserve and protect the said flora and fauna of the area within Mayurbhanj and Balasore districts..

NOW THEREFORE, in exercise of the powers conferred under Sub-Section (1) of Section 36- A of the Wild Life (Protection) Act, 1972 (as amended), the State Government do hereby declare an area of 7263.355 Ac. or 2941.363 Ha owned by Government specified below as **Conservation Reserve** to be known as “**Similipal- Hadgarh - Kuldiha Conservation Reserve**” for the purpose of protecting landscapes, flora, fauna and their habitat therein.

AREA STATEMENT

DISTRICT	TAHASIL	Area(In Acre)	(In Ha.)
Balasore	Khaira	999.895	404.643
	Oupada	99.080	39.632
	Sub-total	1098.975	444.275
Mayurbhanj	Kaptipada	6164.380	2497.088
	Sub-total	6164.380	2497.088
	Total	7263.355	2941.363

FE


FE-WL-WLF-0011-2022/1/2023



616	Mayurbhanj	Kaptipada	Sukhuapatahill-48-04	150	0.170	0.074
617	Mayurbhanj	Kaptipada	Sukhuapatahill-48-04	152	0.190	0.080
618	Mayurbhanj	Kaptipada	Sukhuapatahill-48-04	154	2.000	0.815
619	Mayurbhanj	Kaptipada	Sukhuapatahill-48-04	165	1.950	0.791
620	Mayurbhanj	Kaptipada	Sukhuapatahill-48-04	166	1.985	0.803
621	Mayurbhanj	Kaptipada	Sukhuapatahill-48-04	171	1.934	0.783
622	Mayurbhanj	Kaptipada	Sukhuapatahill-48-04	1693	0.660	0.289
623	Mayurbhanj	Kaptipada	Sukhuapatahill-48-24	1512	1.850	0.773
624	Mayurbhanj	Kaptipada	Sukhuapatahill-48-24	1513	2.000	0.834

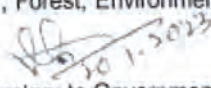
Memo No. 1167 /FE &CC, dtd. 20.01.23

Copy forwarded to the Director, Printing, Stationery & Publication, Odisha, Cuttack for information and necessary action. He is requested to publish the order in the Odisha Gazette and supply 100 copies to Forest, Environment & Climate Change Department.


20.1.2023
Joint Secretary to Government.

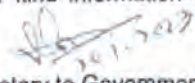
Memo No. 1168 /FE &CC, dtd. 20.01.23

Copy forwarded to the Private Secretary to Hon'ble Minister, Forest, Environment & Climate Change for kind information of Hon'ble Minister.


20.1.2023
Joint Secretary to Government.

Memo No. 1169 /FE &CC, dtd. 20.01.23

Copy forwarded to the OSD to Chief Secretary, Odisha for kind information of Chief Secretary.



20.1.2023
Joint Secretary to Government.

FE-WL-WLF-0011-2022/1/2023



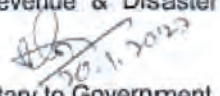
Memo No. 1170 /FE &CC, dtd. 20.01.23

Copy forwarded to the PS to DC-cum-ACS, Planning and Convergence Department for kind information of DC-cum-ACS.


Joint Secretary to Government.

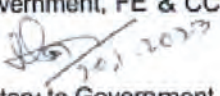
Memo No. 1171 /FE &CC, dtd. 20.01.23

Copy forwarded to Additional Chief Secretary to Govt., Revenue & Disaster Management Department for information and necessary action.


Joint Secretary to Government.

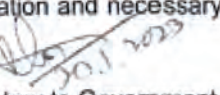
Memo No. 1172 /FE &CC, dtd. 20.01.23

Copy forwarded to the P.S. to Additional Chief Secretary to Government, FE & CC Deptt. for kind information of Additional Chief Secretary.


Joint Secretary to Government.

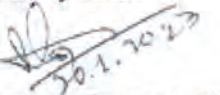
Memo No. 1173 /FE &CC, dtd. 20.01.23

Copy forwarded to all PCCFs/ all RCCFs/ all DFOs for information and necessary action.


Joint Secretary to Government.

Memo No. 1174 /FE &CC, dtd. 20.01.23

Copy forwarded to all Collectors for information action and necessary action.


Joint Secretary to Government.

Memo No. 1175 /FE &CC, dtd. 20.01.23

Copy forwarded to Tahsildar, Khairai/ Oupada/ Kaptipada for information and necessary action.


Joint Secretary to Government.

Memo No. 1176 /FE &CC, dtd. 20.01.23

Copy forwarded to the Head State Portal, IT Department / NIC, Bhubaneswar for information and necessary action.


Joint Secretary to Government.

FE-WL-WLF-0011-2022/1/2023



- E. An area of 26949.88 Ha adjacent to Baisipalli Wildlife Sanctuary in Nayagarh District has been declared as Conservation Reserve U/s 36A of the Wildlife (Protection) Act. This is the second Conservation Reserve of the State.

**GOVERNMENT OF ODISHA
FOREST, ENVIRONMENT & CLIMATE CHANGE DEPARTMENT**

NOTIFICATION

Dated Bhubaneswar the 12.09.23

No.FE-DIV-FLD-0032-2021-19320FE&CC, **WHEREAS**, the area adjacent to the southern boundary of the Baisipalli Wildlife Sanctuary between Takara in the east and Banigochha in the west, covering Central Reserved Forest, Chandhpalli reserved Forest, Nasagarh Reserved Forest and the area in between forms a biodiversity rich area. This landscape together with such flora and fauna needs further protection measures.

AND WHEREAS, after having consultation with local communities, it is felt necessary to conserve and protect the said flora and fauna of the area within Nayagarh District from ecological, environmental and biodiversity point of view and to prohibit its destruction in any manner.

NOW THEREFORE, in exercise of the powers conferred under Sub-Section (1) of Section 36 (A) of the Wild Life (Protection) Act, 1972 (as amended), the State Government do hereby declare an area of 26949.88 Ha owned by Government specified below as Conservation Reserve to be known as "Brutanga Conservation Reserve" for the purpose of protecting landscapes, flora, fauna and their habitat therein.

AREA STATEMENT

DISTRICT	TAHASIL	CATEGORY OF AREA	AREA (In Ha.)
Nayagarh	Dasapalla	Reserve Forest (3 nos)	17549.0
		Proposed Reserved Forest (8 nos.)	1437.51
		Demarcated Protected Forest (5 nos.)	2651.29
		Other Govt. land (under Revenue Deptt. record)	5102.08
Total			26949.88

SCHEDULE 'A'

BOUNDARY DESCRIPTION

The boundary description of Conservation Reserve is described below in Clock wise direction. The boundary line of proposed Conservation Reservation starts from prominent pillar No. 1 on the boundary line of Chadeyapalli Reserve Forest and move south east up to prominent pillar no. 2 and survey pillar no 20. Then it again moves along the boundary of Chadeyapalli Reserve Forest till survey pillar no., 44 and prominent pillar no 3 and touches the division boundary with Ghumusar North Division. Then it moves along the Division Boundary till prominent pillar no. 4 Survey pillar no. 78 in north direction. From this point it moves east ward till survey pillar no. 90 and prominent pillar no. 5 and leaves the inter Division boundary near village Chinapehanra. It then moves in the north east direction till prominent pillar no. 6 and survey pillar no. 95 from where it moves in south direction up to prominent pillar no 7 and survey pillar no. 100 and touches Pokharigochha RF. From this point it moves in the east direction on the boundary of Pokharigochha RF and Central RF up to Survey pillar no. 105 and prominent pillar no. 8. Then it moves in the



-E-DIV-FLD-0032-2021/01/2023

P. 7.0.



- F. On favourable consideration of the proposal initiated by the Wildlife Headquarters, the rate of compassionate grant under the Odisha Civil Services (Compassionate Grant) Rules, 1964 has been enhanced from Rs. 4.0 lakh to Rs. 10.0 lakh by the State government.

**GOVERNMENT OF ODISHA
FINANCE DEPARTMENT**

RESOLUTION

No. FIN-GS2-MISC-0040-2023/16702 /F

Date: 07/06/2023

Sub: Revision of compassionate grant allowed to the State Government employees in the event of death or injury while on duty.

In the event of death of a Government servant having meritorious record of service, sanction and payment of Compassionate Grant to eligible family of the deceased Government Servant is being considered under the provisions of the Orissa Civil Services (Compassionate Grant) Rules, 1964 read with Finance Department Resolution No.27826/F, dated 21.06.2010 at the following rates:

Category of cases	Rate of compassionate grant
i. Death case:- If a Government Servant dies while on duty.	Rs.4.00 lakh
ii. Injured Government Servant:- (a) Injury leading to permanent incapacitation	Rs.2.00 lakh
(b) Injury leading to partial incapacitation	Rs.1.00 lakh
iii. Special family pension shall be admissible under the O.C.S.(Compassionate Grant)Rules, 1964 to the eligible family members of the deceased government servant at the rate of last pay drawn by the concerned employee till the survival date of superannuation had he remained alive provided that the deceased employee had joined in government service under pensionable establishment prior to 01.01.2005.	

2. Enhancement of the existing rate of compassionate grant was discussed in the meeting held on dated 26.05.2023 under the Chairmanship of the Chief Secretary where ACS, FE&CC Department, ACS, Home Department, Principal Secretary, Industries Department, Principal Secretary, Finance Department, PCCF & HoFF and PCCF, WL & CWLW were present.

Government after careful consideration of their recommendation, have been pleased to revise the existing rate of compassionate grant to the State Government employees under the O.C.S (Compassionate Grant) Rules, 1964 as follows;



Category of cases	Revised rate of compassionate grant
i. Death case:- If a Government Servant dies while on duty.	Rs.10.00 lakh
ii. Injured Government Servant:- (a) Injury leading to permanent incapacitation	Rs.5.00 lakh
(b) Injury leading to partial incapacitation	Rs.2.00 lakh
iii. Special family pension shall be admissible under the O.C.S.(Compassionate Grant)Rules, 1964 to the eligible family members of the deceased government servant at the rate of last pay drawn by the concerned employee till the survival date of superannuation had he remained alive provided that the deceased employee had joined in government service under pensionable establishment prior to 01.01.2005.	

3. All other terms and conditions for sanction of Compassionate Grant in favour of the State Government employee shall continue to be the same as specified in the O.C.S.(Compassionate Grant)Rules, 1964 read with Finance Department Resolution No.27826/F, dated 21.06.2010.

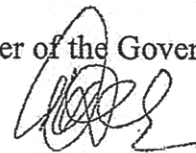
4. The revised rates of Compassionate Grant shall be effective from **22.05.2023**.

5. Relevant provisions of the O.C.S. (Compassionate Grant) Rules, 1964 and the O.C.S. (Pension) Rules, 1992 are deemed to have been modified to the above extent as specified in the foregoing paragraphs and formal amendment in terms of this order will be issued in due course.

6. This has been approved by Hon'ble Chief Minister in GA & PG Department OSWAS file No. GAD-SC-GCS-0128-2023.

Order:- Ordered that the Resolution be published in the Orissa Gazette.

By order of the Governor



(Vishal Kumar Dev)

Principal Secretary to Government



Memo No. 16703 /F.,

Date: 07/06/2023

Copy forwarded to All Departments of Government/All Heads of Departments / All Collectors / All District and Sessions Judges / Deputy Accountant General, Odisha, Puri / Secretary to Governor / Principal Secretary to Chief Minister/ Secretary to Odisha Legislative Assembly / Principal, Secretariat Training Institute, Bhubaneswar / Director General, Gopabandhu Academy of Administration, Bhubaneswar / Director, Madhusudan Das Regional Academy of Financial Management, Bhubaneswar / Manager, Reserve Bank of India, Public Accounts Department, Bhubaneswar for information.


Deputy Secretary to Government

Memo No. 16704 /F.,

Date: 07/06/2023


Copy forwarded to Office of the Accountant General (A&E), Odisha, Bhubaneswar/ Office of the Controller of Accounts, Odisha for information and immediate necessary action.


Deputy Secretary to Government

Memo No. 16705 /F.,

Date: 07/06/2023


Copy forwarded to All Treasury Officers of District Treasuries and Special Treasuries / Sub-Treasuries for information and immediate necessary action.


Deputy Secretary to Government

Memo No. 16706 /F.,

Date: 07/06/2023

Copy forwarded to the Director, Printing, Stationery and Publication, Odisha, Cuttack with a request to publish the order in the Odisha Gazette and supply 50 copies to the Finance Department.


Deputy Secretary to Government

Memo No. 16707 /F.,

Date: 07/06/2023

Copy forwarded to all Officers and all Branches of Finance Department / Director, Local Fund Audit, Finance Department for information.


Deputy Secretary to Government

Memo No. 16708 /F.,

Date: 07/06/2023

Copy forwarded to Sub-Nodal Officer (E-Gazette), FID, Finance Department for information and necessary action.

He is requested to hoist this Resolution in the Official Website (<https://finance.odisha.gov.in>) of Finance Department for General Information.


Deputy Secretary to Government

17/6
S. T. K. Pattnaik
Sub-Nodal Officer, FID



G. Three frontline staff of Similipal Tiger Reserve (two posthumously) have been awarded by National Tiger Conservation Authority (NTCA) for exhibiting exemplary bravery in line of duty. They have been felicitated in the Global Tiger Day 2023 celebration at Corbett Tiger Reserve, Uttarakhand.

1. Late Mathy Hansdah, Forester
2. Late Bimal Kumar Jena, Forest Guard
3. Sri Himanshu Sekhar Sethy, Forest guard



Sri Himanshu Sekhar Sethy receiving award from Hon'ble Minister, Environment, Forest & Climate Change, Govt of India at Global Tiger Day celebration in Corbett Tiger Reserve



Smt Lipina Swain, FG W/O Late Bimal Kumar Jena received award from Hon'ble Union Minister

H. Following frontline staff of the State have received "Gaj Gaurav" Award, 2023 instituted by Project elephant, Government of India for their outstanding contribution in elephant conservation. They were felicitated during World elephant Day, 2023 celebration at Bhubaneswar on 12th August, 2023.

1. Sri Pitambara Gouda, Watcher, Rayagada Forest Division
2. Late Sri Biswaranjan Panigrahi, Ex-Protection Squad member, Dhenkanal Forest Division



Sri Pitambara Gouda Receiving Gaj Gaurav Award from Hon'ble Minister



Wife of Late Biswaranjan Panigrahi receiving Gaj Gaurav Award on behalf of her husband from Hon'ble Union Minister

