

ANNUAL REPORT

2022-23

GHARIAL RESEARCH AND CONSERVATION UNIT



KEEP
SILENCE

GHARIAL RESEARCH AND CONSERVATION UNIT, GRACU
TIKARPADA

LAYOUT PLAN OF EXISTING GHARIAL RESEARCH AND CONSERVATION UNIT AT TIKARPADA ANGUL



CONTENTS

S.No	Section	Page Number
1.	Report of the Officer-in-charge	3
2.	History of the Zoo	3
3.	Vision	3
4.	Mission	4
5.	Objective	4
6.	About us	4-6
7.	Organizational Chart	6
8.	Human Resources	6-7
9.	Capacity Building of the zoo personnel	7
10.	Zoo Advisory Committee	8
11.	Health Advisory Committee	8
12.	Statement of income and expenditure of the Zoo	8
13.	Daily feeding Schedule of animals	8-9
14.	Vaccination Schedule of animals	9
15.	De-worming Schedule of animals	9
16.	Disinfection Schedule	9

S.No	Section	Page Number
17.	Health Check-up of employees for zoonotic diseases	9
18.	Development Works carried out in the zoo during the year	9
19.	Education and Awareness programmes during the year	10
20.	Important Events and happenings in the zoo	10
21.	Seasonal special arrangements for upkeep of animals	10
22.	Research Work carried out and publications	10
23.	Conservation Breeding Programme of the Zoo	10
24.	Animal acquisition / transfer / exchange during the year	11
25.	Rescue and Rehabilitation of the wild animals carried out by the zoo	11
26.	Annual Inventory of animals	11-12
27.	Mortality of animals.	13
28.	Status of the Compliance with conditions stipulated by the Central Zoo Authority	13
29.	List of free living wild animals within the zoo premises	13

1. Report of the Officer-in-charge

Gharial Research And Conservation Unit (GRACU), Tikarpada was established in the year 1975 and successfully managed by the Satkosia Wildlife Division. The GRACU has been recognized by the Central Zoo Authority as Mini Zoo during 2006. Gharials procured from Nandankanan Biological Park are kept in the rearing pools, made them acclimatized with fresh river water and subsequently released in to Mahanadi river system. Every year during winter the Gharial & Mugger population estimation is carried in the Zoo along with the Mahanadi River System of this Division to ascertain their number and its population trend. The Mini Zoo (GRACU), Tikarpada is the main attraction for tourists and catering the needs of local villagers.

2. History of the Zoo

The Satkosia Gorge along the river Mahanadi, in Odisha has been a natural habitat for the fresh water crocodilian species especially the Gharial (*Gavialis gangeticus*) and the Mugger (*Crocodilus palustris*). During 1974, the Food and Agricultural Organization (FAO) of the United Nations had recommended a crocodile conservation initiative in the area in view of the dwindling population of the Gharial crocodiles and their recovery in the wild habitat.

The conservation unit started during March 1975 as a joint conservation initiative by the State Government with technical support from the UNDP and FAO. Dr.H.R.Bustard from the FAO worked as the Chief Technical Adviser of the project till 1980 and Dr L A K Singh was the Senior Research Officer of the project till 1987. The GRACU was recognized by the Central Zoo Authority during the year 2006 as 'mini zoo' located in the heart of the Satkosia Tiger Reserve which declared by the Govt. of Odisha during December, 2007.

3. Vision

Conservation breeding and species recovery of endangered Gharials and other fresh water reptilian species in their natural habitat e.g. Mahanadi River System. .

4. Mission

The mission of Gharial Research and Conservation Unit, Tikarpada is “Conservation and revival of Gharial population and other fresh water reptilian species in Mahanadi River and Gorge Ecosystem”.

5. Objective

- (i) Conservation breeding and rehabilitation of Gharial, water monitor lizard, turtles (*Trionixgangeticus* and *Chitra indica*) and other amphibians.
- (ii) Conservation, breeding of different species particularly those endangered species belonging to the region for preservation of biodiversity
- (iii) To promote education and awareness amongst visitors towards conservation of wildlife
- (iv) Research and scientific study on animal behaviour, diseases and their control, feed and nutrition and reproductive biology. The knowledge so gained can be made use in management of wildlife in the wild.
- (v) Exchange with other zoological parks and rehabilitation of suitable endangered species in the wild with strict adherence to the guidelines framed for the purpose.

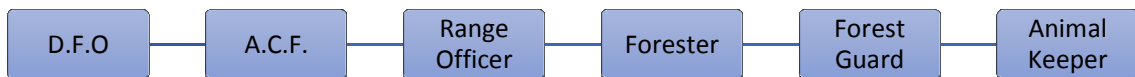
6. About us

S.No.	Particulars	Information
Basic Information about the Zoo		
1	Name of the Zoo	Gharial Research And Conservation Unit (GRACU)
2	Year of Establishment	1975
3	Address of the Zoo	At/Po- Tikarpada Via-Hulurusingha P.S-Purunakote Dist-Angul
4	State	Odisha

S.No.	Particulars	Information
5	Telephone Number	06764-236218
6	Fax Number	06764-236218
7	E-mail address	dfo.satkosiawl@odisha.gov.in dfosatkosiaawl@yahoo.co.in dfosatkosiaawl@gmail.com
8	Website	www.satkosia.org
9	Distance from nearest	Airport:190 Kms (From Bhubaneswar)
		Railway Station:65 Kms (From Angul)
		Bus Stand:60 Kms (From Angul)
10	Recognition Valid up to (Date)	07.12.2024
11	Category of zoo	Mini Zoo
12	Area (in Hectares)	7.00
13	Number of Visitors (Financial Year-2022-23)	Adult : 18176
		Children : 10350
		Total Indian : 28526
		Total Foreigners : 16
		Total Visitors:28542
14	Visitors' Facilities Available in Zoo	Crocodile Conservation awareness centre, Drinking water, toilet, play equipment for children, cloak room, rest room, souvenir shop, sit out, rain shelter,
15	Weekly Closure Day of the Zoo	Tuesday
Management Personnel of the zoo		
16	Name with designation of the Officer in-charge	Sri Saroj Kumar Panda, OFS-I (SB) Deputy Conservator of Forests, Divisional Forest Officer, Satkosia Wildlife Division, Angul

S.No.	Particulars	Information
	Name of the Veterinary Officer	Dr. Kishor Kumar Sahu
	Name of the Curator	-
	Name of the Biologist	Sri Gatikrishna Behera
	Name of the Education Officer	-
	Name of the Compounder/ Lab Assistant	-
Owner / Operator of the Zoo		
17	*Name of the Operator	Sri Saroj Kumar Panda, OFS-I (SB)
18	Address of the Operator	At/Po-Hakimpada, Dist-Angul, Pin-759143
19	Contact details/Phone number of Operator	Mob:- 8280146664 Phone :- 06764-236218
20	E-mail address of Operator	dfo.satkosiawl@odisha.gov.in dfosatkosiawl@yahoo.co.in dfosatkosiawl@gmail.com

7. Organizational Chart



8. Human Resources

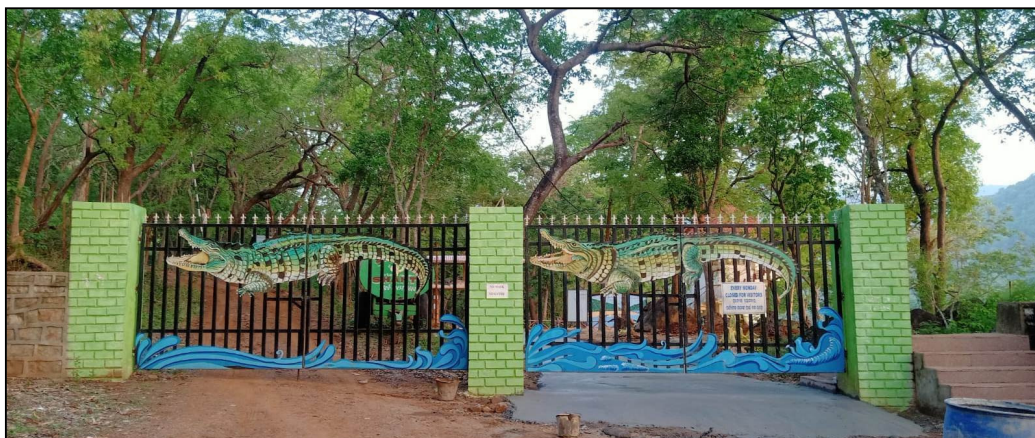
At present the GRACU is being managed by the Range Officer, Tikarpada, and a special Forester in-charge of Zoo & Forest Guard Tikarpada 'B' Beat. There are 5 Gharial watchers, 1 Temporary Status staff and 1 daily wage animal keepers to manage the daily activities at the centre.

Manpower of the Zoo

Sl.No.	Designation	Number of Sanctioned Posts	Names of the incumbent
1	Sr. Vet. Officer	01	Dr. Kishor Kumar Sahu
2	Jr. Vet. Officer	01	Nil
3	Forester	Nil	Nil
4	Forest Guard	Nil	Nil
5	Gharial Watcher	06	Kaibalya Das Susanta Das Manas Ranjan Tripathy Sanjay Kuma Sitha Anita Sahoo
6	Pool Attendant	01	Nil
7	Pumpman	01	Nil
8	Security personnel (Contractual)	Nil	Nil
9	Research Fellow (Contractual)	Nil	Nil

9. Capacity Building of zoo personnel

Sl.No.	Name and designation of the zoo personnel	Subject matter of Training	Period of Training	Name of the Institution where the Training attended
Nil				



10. Zoo Advisory Committee

Steps taken to constitute Zoo Advisory Committee

11. Health Advisory Committee

Steps taken to constitute Health Advisory Committee

12. Statement of income and expenditure of the Zoo

2022-23

Scheme	Name of the work	Allotment (Rs. in lakh)	Expenditure (Rs. in lakh)
02-Programme Expenditure	Maintenance of GRACU, Tikarpada, Feeding of Crocodile kept in enclosure, POL for Diesel pump set	3.05	3.05
CAMPA APO-2020-21 (Wildlife Wing)	Land development and landscaping around zoo hospital, construction of concrete road at GRACU, purchase of table chair, sign board etc. for zoo hospital, Installation of CCTV.	30.00	11.08464
Total		33.05	14.13464

During the year 2022-23 an amount of Rs.1279060/- has been collected from the Entry gate Pampasar as entry fee. Also the allotment and expenditure details of the Zoo as provided by the P.C.C.F (HoFF)& P.C.C.F (WL) & C.W.L.W is as above:-

13. Daily feed Schedule of animals

Sl.No.	Species	Feed item	Quantity		Day of fasting
			Winter	Summer	
1	Mugger (<i>Crocodyluspalustris</i>) (Adult 5 years and above)	Meat or Fish	1 Kg	1 Kg	Tuesday
2	Mugger (<i>Crocodyluspalustris</i>) (Sub-Adult 2 to 5 years)	Fish (Fingerling about 6 inch)	205 g	250 g	Tuesday
3	Gharial (<i>Gavialisgangeticus</i>) (Adult 5 years and above)	River Fish	1 Kg	1 Kg	Tuesday
4	Gharial (<i>Gavialisgangeticus</i>) (Sub-Adult 2 to 5 years)	Fish (Fingerling about 6 inch)	150 g	150 g	Tuesday

5	Terrapin	Green Sag	10 g	10 g	Nil
		Fingerling fish	50 g	50 g	
		Cabbage	20 g	20 g	

14. Vaccination Schedule of animals

Mostly the animals kept in the Zoo are reptiles. So it is not necessary for vaccination the animals.

15. De-worming Schedule of animals

Mostly the animals kept in the Zoo are reptiles. So it is not necessary for de-worming the animals. However, antifungal treatment is going on regularly in the mini Zoo.

16. Disinfection Schedule

Sl.No.	Species	Type of enclosure	Disinfectant used and method	Frequency of disinfection
1	Mugger, Gharial & Turtle	Iron Mesh with GI pole	Bleaching Powder – dusting Pottasium permanganate – foot dip, GI pole disinfection	Premises disinfection - weekly Foot dip – daily pool Disinfection – fortnightly

17. Health Check-up of employees for zoonotic diseases

Arrangements are made for collection of blood samples from Zoo attendants.

18. Development Works carried out in the zoo during the year

Following developmental works are carried out during the year 2022-23 :- 1. Land development and landscaping around zoo hospital. 2.Construction of concrete road. 3. Installation of CCTV.

19. Education and Awareness programmes during the year

Training programmes for Bird census, Phase –IV monitoring of Tigers and its co predators and Crocodile Census has been conducted. Also important day like Crocodile day, wetland day etc. has been celebrated to create awareness.

20. Important Events and happenings

Mass awareness programme by Save Elephant Foundation and World forestry day, wildlife week celebration conducted in GRACU Meeting Hall. Operationalization of Zoo Hospital.

21. Seasonal special arrangements for upkeep of animals

During summer season shade nets and temporary sheds were used to protect reptiles from harsh sun rays.

22. Research Work carried out and publications

No research carried out during the year.

The CWC is monitoring the depth of water in Satkosia Gorge ecosystem of river Mahanadi and intensity of flow of water in the Gorge.

23. Conservation Breeding Programme of the Zoo

No Conservation Breeding Programme carried out during the year.

24. Animal acquisition / transfer / exchange during the year : NIL

25. Rescue and Rehabilitation of wild animals carried out by the Zoo :- NIL

26. Annual Inventory of animals

Form – II
[See rule 11 (1)]
PART - A

Annual Inventory Report
Inventory Report for the Year : 2022-23

S. No	Animal Name	Scientific Name	Opening Stock as on 01.04.2022				Births				Acquisition				Disposals				Deaths				Closing stock as on 31.03.2023							
			M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T				
Reptile	Gharial	<i>Gavialis gangeticus</i>	1	3	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	-	4
Total Reptile			1	3	-	4																					1	3	-	4
Total Animals			1	3	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	-	4



PART – B

Other than endangered Species

S. No.	Animal Name	Scientific Name	Opening Stock as on 01.04.2022				Births				Acquisition				Disposals				Deaths				Closing stock as on 31.03.2023			
			M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T
1.	Mugger	<i>Crocodylus palustris</i>	3	2	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	-	5
2.	Turtle	<i>Kachuga kachuga</i>	-	5	3	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	3	8
Total Reptiles			3	7	3	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	7	3	13
Total Animals			3	7	3	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	7	3	13



27. Mortality of animals

Sl.No.	Animal Name (with individual identification mark, if any)	Scientific Name	Sex	Date of Death	Reason of Death as per the Post- mortem report
1			Nil		

28. Compliance with conditions stipulated by the Central Zoo Authority

As suggested steps are taken for proper landscaping and planting of appropriate species to create a naturalistic environment has already been done.

As suggested increase of perimeter wall upto 2 meter height has been done

As suggested Steps will be taken for strengthening of existing interpretation awareness centre

29. List of free living wild animals within the zoo premises

- a. Mammals - NIL
- b. Birds - NIL
- c. Reptiles as follows

Animal Name	Sex			Total
	Male	Female	Un-identified	
1	2	3	4	5
Gharial (Gavialisgangeticus)	1	3	0	4
Mugger (Crocodyluspalustris)	3	2	0	5
Terrapin	0	5	3	8



SATKOSIA WILDLIFE DIVISION, ANGUL