

No. 11-2/2011-NTCA
Government of India
Ministry of Environment & Forests
National Tiger Conservation Authority

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Dated the 1st May, 2012

To

The Chief Wildlife Warden,
Govt. of West Bengal,
Kolkata

**Sub: Phase-IV monitoring protocol for the Sundarbans Tiger Reserve
(West Bengal) – reg.**

Sir,

I am directed to forward herewith a copy of Phase-IV monitoring protocol for the Sundarbans Tiger Reserve (West Bengal) duly approved by the competent authority for action as appropriate.

Encl: As above

Yours faithfully

(S. P. Yadav)
Deputy Inspector General (NTCA)

Copy to:

1. The Field Director, Sundarbans Tiger Reserve,
2. The Director, Sunderban Biosphere Reserve, West Bengal.
3. The Director, Wildlife Institute of India, Dehradun.

Phase-IV monitoring protocol for the Sundarbans Tiger Reserve (West Bengal)

The Sundarbans habitat is unique and different from other tiger reserves owing to numerous creeks in the delta region bisecting the reserve into several islets. It is difficult to lay transects for data collection owing to dense mangrove vegetation in the area. Hence, a separate Phase-IV protocol has been firmed up in consultation with the State officials (West Bengal) and Wildlife Institute of India (WII).

The details of the Sundarbans Phave-IV protocol are as below:

- (i) Creek transects to be used, as done in the 8 day protocol for country level estimation, to obtain the details required for completing the format given in *Annexure-I*. Such sign surveys in channels would determine the extent and relative abundance of tigers and provide an idea of area occupied by tigers.
- (ii) 4 sq.km. grids to be laid on all islands of the core area for laying camera traps with a closure period of 25 to 40 days, besides using stink boxes in grids to lure tigers for camera trapping as already being practiced by the Forest Department in collaboration with the WWF in 24 Paraganas. This would give an idea of minimum number of individual tigers present in area where camera trapping has been done.

Annexure-I

Field formats for data collection in distance sampling

I. Line Transect Data Sheet for monitoring of ungulate population by DISTANCE sampling:

Observer name: Start time: Date:
 End time: ID no. of line transect: Total length: km
 TR / Forest division: Range: Beat:
 Weather condition: Cloudy/Clear sky
 Beginning GPS Lat:N; Long:E
 End GPS Lat:N; Long:E

Sighting No	Time	Species*	Total Nos. (Adults & Young)	Young	Sighting Distance	Compass Bearing	Forest Type	Terrain Type	Remarks
1									
2									
3									
4									
5									
6									
7									
8									

*Species that need to be recorded on the transect: chital, sambar, nilgai, gaur, barking deer, elephant, rhino, wild buffalo, swamp deer, hog deer, chowsingha, blackbuck, chinkara, wild pig, langur, peafowl, hare, cattle (live stock), and other mammalian species seen.

II. Location of transects in relation to Vegetation and Terrain features

Transect No.	Total length (km)	Name	Bearing	GPS location		Vegetation type	Terrain category
				Start	End		
T1							
T2							
T3							
T4							
T5							
T6							
T7							