

Title of the Project:- Population Habitat Viability Analysis (PHVA) of Hard ground Barasingha (*Cervus duvaucelibranderi*) for introduction in Bandhavgarh Tiger Reserve, M.P.

Why this Project:-

The proposed sites for introduction in Bandhavgarh Tiger Reserve is found suitable for Barasingha during an in house survey by the department.

The introduction sites support all ecological requirement of this deer species as all the causes of local extinction of this cervid needs to be removed, the introduction programme stands justified as far as the IUCN guidelines are concerned.

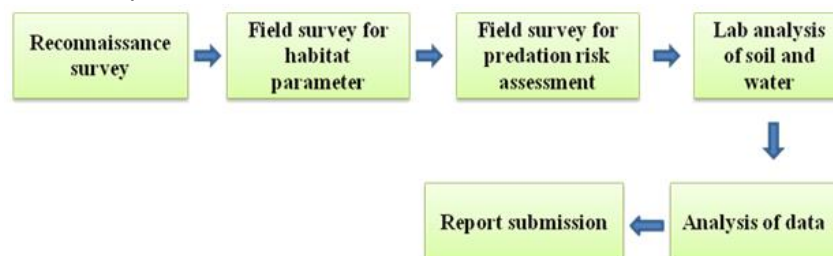
A detail population Habitat Viability Assessment is the need of the hour before carrying the introduction programme.

Research methodology: -

- Reconnaissance survey for the proposed release sites.
- Detail vegetation sampling based on working plan protocol shall be done.
- Other habitat parameter shall be also collected.
- Data shall be analysed and draft report prepared
- Final report shall be submitted within 3 months

Study Design :-

- Project staff recruitment shall be done for field data collection
- Field data collection shall be done in Kanha as well as in proposed releasing sites at Bandhavgarh to compare both sources sites and releasing sites.
- Data analysis shall be done and PHVA shall be done
- Report writing work shall be done
- Submission of final report



Objectives of Research:-

1. To compare various habitat parameters of the barasingha in source sites of Kanha and the proposed releasing sites at Magdhi Range of Bandhavgarh
2. To compare basic parameters of the barasingha in grassland areas of Kanha, with proposed introduction site Magdhi of BTR and adjacent meadows for the establishment of barasingha population.
3. To study viable population of Barasingha for introduction
4. To explore the possibility of expansion of the free-ranging barasingha population and suggest measures for habitat and connectivity improvement in proposed introduction site.

Activities Undertaken:-

- Initially 37 Barasingha were released in Bandhavgarh on 26th March 2023, later 11 more were trans located from Kanha during March 2024.
- Final report was submitted to PCCF Wildlife letter no/AED/1632 dated 26/06/23

Cost of the Project:- 3.91 lakhs

Outcome of Research:-

- Under the project, with the aim of increasing the habitat and geographical environment of Barasingha, replacement has been made from Kanha Tiger Reserve to Bandhavgarh Tiger Reserve. In which the institute has also studied suitable habitat sites along with population habitat viability by availed data.
- At the initial level, the institute has suggested replacement of a total of 60 Barasingha from Kanha Tiger Reserve to Bandhavgarh. The Government of India has given permission for translocation of 50 Barasingha.
- Based on the suggestion given by the institute, 48 Barasingha has been successfully translocated from Kanha to Bandhavgarh.

Risk factor & suggestion

- Habitat suitable area in Bandhavgarh is restricted in few patches, so creation of more suitable swampy habitat is need of the hour in phase wise and precaution need to be taken based on their possible movement across the Bandhavgarh, when they would be released in the wild.
- Our assumption for Population Viability Analysis was based on 15% mortality in the wild condition. If Mortality goes beyond this limit, immediate action needs to be taken to curb down the mortality.
- We have surveyed during peak summer at Magdhia to assess the available food and water resources of Barasingha and found the enclosure habitat is suitable for Barasingha and similar situation was also observed in other adjoining grassland like Mili, Jogiwada etc. we recommended the inter connecting of grasslands at Bandhavgarh otherwise hard release programme may face risk of mortality due to lack of available food.
- Regular monitoring of prey and predator population was recommended especially at the probable hard releasing sites of Barasingha at Bandhavgarh.

Deliverable technologies developed in each project for stakeholders, forest professionals, field foresters and other beneficiaries

- PHVA of Barasingha for introduction in new habitat



Work activities under Barasingha project