

Extracts from the final recommendations of the Rhino
Sub-Committee of the Wildlife Status Evaluation
Committee of the IBWL in the Translocation of
Great Indian Rhinoceros

THE PROPOSAL TO RE-INTRODUCE RHINOCEROS INTO
DUDHWA

Since Dudhwa does not currently have rhinos, the question of suitability of habitat was carefully examined in addition to protection and the general quality of management.

Background Information on Dudhwa National Park

The following floral elements are common to Dudhwa, and Kaziranga and Manas National Parks, both of which are good areas presently maintaining large populations of rhinoceros :

Grasses	10 spp
Herbs and climbers	10 spp
Hydrophytes	6 spp
Shrubs and undershrubs	7 spp
Trees	12 spp

A tentative list of rhino food plants (i.e., plants which rhino eat in other areas) was drawn up for Dudhwa and included some 14 species.

The U. P. Forest Department has proposed an area of approximately 90 km² in the south-west part of the park (South Sonaripur and South Bellarian ranges) : as providing the most suitable rhino habitat. It includes a 15 km long tract of grassland on the southern boundary of the park bordering the Suheli River. Fifty per cent of the area is subject to seasonal floods and an area of 560 hectares is permanently swampy and waterlogged. The Committee felt that the area was highly suitable. A disad-

vantage of the area proposed is that it is adjacent to the southern boundary of the park (Suheli River) which lacks a buffer zone and outside of which is an area of dense human occupation and cultivation. There is thus a danger of rhinos wandering across the river and causing damage to cultivation and possibly also to human life (see Recommendations with regard to this point).

Recommendations on Dudhwa

The Committee is of the view that Dudhwa National Park contains suitable habitat for a population of Indian Rhinoceros. In particular, the area of South Sonaripur/South Bellraian provides water for drinking and wallowing, shade and an adequate variety of plants known to be eaten by rhino elsewhere. (However, as a confirmation of this latter point, the Botanical Survey of India was requested to carry out a survey in September 1980, of the incidence and frequency of rhino food plants in Dudhwa, with particular attention to the three areas mentioned.)

(i) As a prerequisite to the introduction of rhinoceros it is essential to fully enforce the provisions of the wild Life Act (1972) determining the management and control of Dudhwa as a National Park. In this regard, the efforts of the Chief wildlife warden and his staff must be strongly reinforced. To this end and in order to increase the suitability of the Park as a rhino introduction site, the Committee recommends that the following measures should be undertaken *prior* to the release of rhinos into Dudhwa.

- a. A portion of the existing Reserve Forest adjacent to the southern Park boundary should be transferred to the control of the Park management and managed as a buffer zone.
- b. The cutting of thatching grass and collection of fuel by local villagers must be stopped within a radius of 3 km of the release site, i. e. an area of 30 km²
- c. No further building within the Park should be undertaken.
- d. The installation of the radio network within the Park should be completed and protection staff re-deployed accordingly.
- e. A Research Assistant (A. C. F. level) should be appointed and undergo training in methods of monitoring the introduced rhinos and research on aspects of their ecology and behaviour,

such as interaction with other species, either at Dehra Dun or Hyderabad. He should ultimately be linked to the larger rhino research project to be based in Assam.

- f. A Range Officer and four Guards selected by the Park Director should be sent to Kaziranga for 2 months to undergo a period of training in rhino management under the Kaziranga wildlife staff, by arrangement with Assam Forest Department.
- g. In order to prevent rhinos from Wandering across the Park boundary from the proposed release area, a rhino-proof barrier should be erected parallel to the right bank of the Suheli river from the point where the Dudhwa/South Sonaripur inter-range border joins the southern Park boundary to a point on the Park boundary south of Salukapur F. R. H. The distance is approximately 11 km. The type of barrier erected initially will be a trench-cum-fence and should be regarded as experimental. Size of the trench will be $2 \times 2 \times 1$ m the outer slope being brick-lined to prevent scouring. 60 m sections of trench will be alternated with 15 m sections of iron fencing so as to avoid water flow in these trenches turning it into a 'nullah'. Regular maintenance of the trench will be necessary.

(ii) In addition to the prerequisites to rhino release listed in (i) above the following long-term measures are recommended to further strengthen the quality of management in Dudhwa :

- a. The remaining half of the village in the north of the Park should be resettled as per sanctions already provided.
- b. The following railway stations within the Park which are very little used by people, should be closed as soon as possible : Sonaripur, Phulwaria, Rehta and Dingania.
- c. The railway line running through the Park should eventually be removed and realigned along the outside northern border of the Park, where it would be of great service to the tribals living in that area.
- d. The main road through the interior of the Park should be closed to the public as soon as the new road in the northern buffer zone has been completed (this was expected to be in mid-1981)
- e. A Perimeter track should be constructed inside the Park boundary, where not already present, to facilitate patrolling of the boundary by vehicle.

- f. Existing tourist accommodation should be moved outside of the park boundary.
- g. It is recommended that the Park authorities monitor flow of water in the Suheli River as well as activities in the catchment areas which are likely to affect water flow. Immediate steps should be taken to rectify and modifications of the catchment area which adversely affect flow.
- h. The cutting of thatching grass and fuel wood in the Park by local villagers should be progressively eliminated within the next 5 years.
- i. Judicious management of water in potential rhino areas is recommended. In particular, an increase in the amount of water held in ponds/tals during the dry season is desirable. However, measures to achieve this, such as raising the level of roads should be undertaken with due aesthetic care and conservation of the existing natural environment in mind.
- j. The following extra transport should be provided in order to increase the patrolling and fire-fighting capabilities of the Park Staff:
 - 1 Jeep (with trailer)
 - 2 Motorcycles
 - 10 Bicycles
 - 2 Elephants
- k. The following additional personnel are also recommended :
 - 1 Driver (for the Jeep)
 - 2 Mahouts
 - 4 Armed Guards
- l. The management plan for the Park, revised so as to incorporate provisions for carrying out these recommendations, should be submitted to the Jt. Secretary for evaluation within 4 months of the finalisation of the recommendations.

- iii. It is recommended that when recommendations (i) (a) to (g) above have been carried out, arrangements should be made for the release of rhinoceros into Dudhwa National Park in accordance with the following :
- a. An initial release should consist of six young adult animals (2 males; 4 females).
 - b. They should be released South Sonaripur Range South-West of Kakraha Tal (the boundary of which area will have been provided with a Rhino proof barrier).
 - c. Prior to release, the animals should be confined in Stockades in the release area for a minimum of 8 weeks. The design of the stockades should follow F. A. O. Field Document on rhino translocation. After initial individual confinement in the stockades animals should be let out into a 1 ha communal paddock under careful supervision thus allowing increasing familiarity with their new surroundings. It is recommended that the period within the paddock be used to experiment with the effectiveness of various types of barrier against Rhinos e. g. electric fence, steel cables under tension (c. f. Addo electric fence), ditches etc. (A barrier established as reliable for Rhinos in these limited experiments could then be 'field tested' by erecting a section of it along the southern Park boundary next to the trench-cum-fence, where it would be subject to stresses in addition to those due to rhino, such as elephant or cattle damage.)
 - d. The translocation should take place during the winter months of December to February, following suitable capture and holding preparations within Assam.
 - e. All animals should be immunised against infectious diseases prior to release in Dudhwa.
 - f. The movements and feeding habits etc. of the introduced rhinos be carefully monitored by the Research Assistant after release. In particular, any attempts to leave the Park area should be noted including interaction with the experimental trench-cum-fence
 - g. Because of the danger of tiger predation, new-born rhinoceros should be protected for a period of at least 6 months after birth, if possible by round-the-clock presence of Guards.

- h. Suitable publicity and, in particular, preparation of the local human population around Dudhwa National Park should be mounted prior to the introduction operation. Preparatory and follow-up publicity should commence under the direction of the Chief wildlife warden, Lucknow.
- i. Further releases in Dudhwa should be planned based on the experience with the initial six animals. A total release of up to 30 about over 5 years, in the South Sonaripur/South Bellpuraian ranges is recommended. The area of 90 km² proposed as suitable for rhinos be able to accommodate a maximum 90 animals but clearly rhinos must leave space for future population growth by reproduction. A limiting factor might prove to be the availability of funds for further fencing of the southern boundary, depending on which type barrier eventually proves to be the most suitable.