

# Report on the suitability of Dudhwa National Park U.P. as potential site for re-introduction of the Indian Rhinoceros

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## **1. Introduction**

Informed conservationists generally agree that an endangered species whose habitat type has by human impact been reduced and split up into separated "islands", should live in as many of those islands as possible. This reduces the risk of its extinction.

This applies also to the great Indian rhinoceros. Some decades ago the few survivors of the species lived in Kaziranga and near Chitwan Nepal. Devoted efforts to protect these animals were extremely successful especially with the Kaziranga population which has multiplied many times within the last 40 Years. Within the new national park, population pressure is high and during recent years emigration of a population surplus has been observed. These animals have spread up and down and across the Brahmaputra Valley. However, most areas into which the rhinos move are used for agriculture and the invading animals are not compatible with it. There is not much choice but :

- to destroy them;
- to capture them and to transfer them to zoos;
- to translocate them to protected areas.

From the point of view of conservation, only the latter mentioned possibility is satisfactory, and then only if the probability is high that the animals can thrive in the new area.

## **2. Identification of areas for translocation of Indian rhinos**

One requirement of such an area is that it must be efficiently protected. Of equal importance is habitat suitability. Translocation to an

area which already harbours a local rhino population is of little value. Under stable conditions the size of such a population depends on the living conditions provided by the area. As the introduction of individuals does not improve these conditions, it will not result in the lasting growth of the population. At best a small local population might profit as a gene pool from the importation of individuals not originating from the same local strain.

In fact it once has been suggested to translocate rhinos from Kaziranga to Manas, but such an effort would not be effective for the above reason. The most beneficial solution would be to create new population units in areas which :

- are—or can be—efficiently protected;
- provide suitable habitat throughout the year;
- are large enough to harbour viable population units;
- are not yet inhabited by rhinos.

### 3. Dudhwa National Park, U. P.

Repeatedly, Dudhwa National Park has been proposed as a possible place to establish a new local rhino population. The Rhino Sub-Committee (Chairman Dr. J. B. Sale) of the Wildlife Status Evaluation Committee of India has worked out a detailed proposal, dated 21. 7. 1980. L. and R. Schenkel visited Dudhwa National Park at the end of December 1980/beginning January 1981 in order to obtain some first hand information on the habitat and the management of the Park. In a general way we can confirm the information summarized by the Rhino Sub-Committee in their report dated 21. 7. 1980. The following statements can also be made.

#### (a) *Size and habitat*

The whole park area is 490 km<sup>2</sup>, approximately half the size of Kaziranga. Large parts of the park are characterised by rhino habitat similar to that of Kaziranga. Until about 1870 the area was inhabited by rhinos, but they were finally eradicated by hunting.

Although the percentage of forest in the area is higher than in Kaziranga, savannah marsh land vegetation is abundant and a number of “nallas” and “this” (ponds), as well as the Suheli river which forms the south-western border of the park, provide permanent water.

The lower, marshy areas are seasonally flooded. However, in times of flood the rhinos find refuge areas on higher ground inside the park. On the basis of habitat evaluation the Sub-committee has identified three areas within the park where rhinos could preferably be released. The choice of the area will be especially important during the early period after the rhino release. During this stage, disturbance of the animals should be avoided as much as possible. Once a new population unit is growing, parts of it will tend to progressively colonize the neighbouring suitable areas.

#### (b) Relation to man

At present, the park appears well protected and illegal hunting does not seem to play a major role. However, the introduction of rhinos into the park might lead to conflict between the rhinos and the human population of the surrounding area because:

- until now villagers were allowed to cut thatching grass in the park, mainly in December, and also to collect firewood.
- Individual rhinos might tend to move out of the park into cultivated land.

Before rhinos are translocated to Dudhwa, measures should be taken to minimize future conflict between rhinos and man.

#### 4. Conclusions

Dudhwa is the area most suitable for establishing a new local population of Indian rhinoceros. The area is protected, large enough and contains suitable habitat.

However, measures to minimize conflict between rhinos and man are essential. In this context two problems have to be resolved:

- either the exploitation of resources provided by the park, which traditionally was permitted, will have to be strictly organised and controlled, or such exploitation will have to be stopped and the resources provided by alternative measures.
- Measures must be taken to prevent rhinos (and elephants) from moving into cultivated land outside the park.

Plans to cope with these problems have been developed. In particular, a trench-cum fence system to prevent rhinos from leaving the park

across the Suheli river or in an eastern direction has been designed and budgeted. Undoubtedly such a system would have to be permanently kept under control and maintained. A solid track will have to permit access to the trench-cum-fence in its entire extension (the suitability of high voltage electric fencing as demonstrated at the recent elephant workshop of India could also be explored - Ed.). It will also be necessary to resolve the problem of the "dacoits", who at present live partially in the park, partially in its immediate vicinity.

We do not doubt that all these problems can be resolved, but we want to emphasize that they must be resolved so that translocation does not run a high risk of failing.

We would like to mention one more aspect, construction and maintenance of the trench-cum-fence system would provide the possibility of employing workers of the villages around the park. This might contribute to create a positive relation between people and park.

## **5. Recommendations**

We support the recommendations of the Rhino Sub-Committee dated 21.7.80. Introduction of rhinos into Dudhwa National Park, U.P. is a highly desirable measure in the interests of rhino conservation. However, we want to stress that quite a number of important steps have to be taken to assure the lasting success of the rhino translocation.