ASIAN RHINOCEROS Project 1726 Action Plan, Asian Rhinoceros

WWF GRANT 1979 - $1,907

The Asian Rhino Specialist Group met in Bangkok in the summer of 1979 with WWF/IUCN support to analyse the situation of the three Asian rhino species and work out immediate action plans for their long-term survival. Extracts are given below from the report of the chairman, Dr Rudolf Schenkel of Basle University.

The Asian rhino species have a chance of long-term survival only if local viable population units persist or can be established and kept alive - population units in which reproduction outweighs mortality. The survival chance increases with the number of areas which harbour viable population units.

The three species, the Great Indian rhinoceros (Rh. unicornis), the Javan rhinoceros (Rh. sondaicus) and the Sumatran rhinoceros (Dicerorhinus sumatrensis) live in different situations.

The Sumatran rhinoceros is a forest dweller similar to the Javan rhino, but better adapted to mountainous areas. It feeds on tree saplings, climbers and other forest plants. It also needs surface water, salt, wallow places and cover. In its use of the environment it is conservative: the same saltlicks, wallow places, feeding areas and main tracks may be used over generations. Main tracks connect more or less distant focus areas of rhino activity - e.g. saltlicks, wallow places, feeding areas - and are well adapted to topography.

Population density is lower than in any other rhino species: approximately one animal per 40 square kilometres. The individual home ranges are very large and overlapping. The way of life is nomadic. Individuals from the age of one to 12 years on are predominantly solitary.

The Javan rhinoceros shows many similarities with the Sumatran rhinoceros, not only in its life cycle and reproduction, but in biology generally. Both are forest dwellers, feed on forest plants, and are predominantly solitary. As both live in their last refuge places only, present observations might not be conclusive to define their specific habitat preferences. The refuge places have provided survival for population units, not because they are optimal as to habitat, but because they are comparatively inaccessible for hunters.

Compared with the Sumatran rhino, the Javan rhino is better adapted to lowland, flat terrain, soft and wet soil, to disturbed forest and to the vegetation transitional between forest and low growing vegetational cover. It not only wallows, but frequently lies in river basins, and also in brackish water.

Although living predominantly solitary, its population density is much higher than in the Sumatran rhino (in Ujung Kulon e.g. around one animal per seven sq. kilometres). Individual home ranges are overlapping. Territoriality between bulls of top status is at least not strictly realized. The noise of a rhino when moving through dense vegetation may stimulate another one to utter a far-reaching whistling call. Communication with scent traces shows an additional component typical for the genus Rhinoceros: a scent gland in the forefoot scent-marks the trail.

In SE Asia human settlement has spread in the plains and hills, not in the high mountain ranges. This explains why the Javan rhino has been wiped out in the entire range of its former distribution, whilst the Sumatran rhino has survived in several places in mountainous areas. Ujung Kulon is - with all likelihood - the only place where the species has survived.

The Great Indian rhinoceros differs from the two other Asian rhino species in that it lives in comparatively open country; it is to a large extent a grazer; it is a comparatively social rhino species; in a suitable habitat, it can reach a rather high population density (e.g. Kaziranga, appr. 1 rhino/0.6 square kilometres); its individual home range under stable living conditions is much smaller than in the other Asian rhino species, yet seasonal or irregular changes of its living space (e.g. flooding or drought) can force migrations upon the animal; it lies for hours submerged in shallow water or in narrow wallows; defecation - again and again at the same spot - results in the formation of large dung heaps; females on heat not only release urine at short intervals, but also utter a typical rutting call. All three Asian rhinoceros species are endangered, the Great Indian rhinoceros less so than the two other species.

In all three species, areas set aside for rhinos must be efficiently protected; must have habitat suitable for the respective species; must be large enough to harbour a comparatively large population unit; and the number of such isolated conservation areas should for each species be as high as possible. Depending on the specific situation of each rhinoceros species and each country, the conservation strategy has to set specific priorities of action and to focus on specific intermediate aims of action.

Sumatran rhinoceros

Malaysia: The main needs are:

- To maintain the present level of protection of rhinos, habitat, areas.
- To monitor the rhino population unit of Endau Rompin. It is especially important to find out whether they will resume breeding and make use again of the area logged in 1977/78.
- To survey Taman Negara as to rhino range, composition of the local population, breeding.
- To study the situation of the rhinos of Sungei Dusun. Range? Viable population unit or relict individuals? Conservation measures indicated?
- To survey Sabah, Kinabalu N.P. and Ulu Segama for Sumatran rhino.

Thailand

- To survey four special areas as soon as possible in order to assess for each one: whether rhinos are living there; whether only relict individuals are there; whether there is a viable population unit? In the two latter cases: what conservation measures are indicated?
- It is very important to create and promote awareness of the importance of nature conservation - in the human population living near to conservation areas; in the government as well as the general public.

Indonesia

- To continue and improve protection of the Mt. Leuser complex of reserves.
- To perform a rhino survey of the Kerinci-Seblat forest (Central Sumatra).
- To perform a rhino survey of the Banamuda area, north of Kutai, Kalimantan.
- To assess the situation of the rhinos still existing in other parts of Sumatra and the possibilities of establishing additional viable population units based on these animals and areas.

Javan Rhinoceros

The population unit of Ujung Kulon in west Java is most probably the only one left of the species.

Experience shows that these animals are exposed to poaching as soon as actual protection is neglected. Protection of Ujung Kulon is paramount for the species' survival, and this implies morally and materially adequate living conditions for

the guards as well as efficiency and integrity of the staff of the Directorate of Nature Conservation (P.P.A.). In addition it is important to permit only tourism beneficial to conservation: limited as to quantity and quality of tourists, based on love of and interest for unspoiled, non-manipulated nature. It would be risky and unwise to capture rhinos to display them to tourists as a "sensation".

In the long run it is a great risk for the survival of the species to have its world population confined to one single area of 400 to 500 square kilometres. It is very important to define soon an additional area with habitat suitable for the species; to organize its legal and actual protection and to translocate to it the nucleus of a new population unit. The signal to start such action might be emigration of rhinos out of their range, which would be evidence of population pressure within.

Great Indian Rhinoceros

The population of this species exceeds 1100, perhaps even 1500 individuals. These animals form two larger and at least six smaller population units, which presently all thrive due to efficient protection.

The largest unit inhabits the Kaziranga National Park, an area of only approximately 550 square kilometres; population pressure has grown high and, as a consequence, damage by rhinos to the rice fields bordering the park.

On the other hand the situation of most of the population units shows certain risks apart from poaching: contact between domestic buffaloes and rhinos and its consequences in the case of epidemic outbreak; loss of living space as a consequence of erosion during seasonal flooding; loss of food resources due to the spreading of the exotic plants such as water hyacinth.

It is important to monitor all local population units and to study the consequence of flooding and the impact of exotic plants; and establish new units by translocating rhinos from overpopulated areas. This will at the same time reduce friction between rhinos and people, and broaden the basis for the species survival.

Professor Dr Rudolf Schenkel
Chairman, IUCN/SSC Asian
Rhino Specialist Group