

Section 5 – Appendices

5.1) Extracts from the two WWF-commissioned Draft Action Plans

a) **Rhinoceros Conservation in Asia: The Challenge for WWF**

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EXECUTIVE SUMMARY

Over two decades of conservation efforts to increase the populations of the three highly endangered species of Asian rhinoceros have been largely unsuccessful. With the exception of the Greater one-horned rhinoceros populations in Kaziranga and Chitwan national parks in India and Nepal, respectively, all of the other rhinoceros populations have been in decline, or at best, shown no significant increase in numbers despite being in protected areas.

Large mammals, including rhinos, are wide-ranging and require extensive habitat areas to support viable populations. Thus, it is possible that several of Asia's relatively small protected areas are now at carrying capacity, and by themselves are unable to provide the adequate ecological resources necessary to support larger populations. Fragmentation of natural habitat and insularization of reserves which were once set within large habitat landscapes now leave little hope of matching the expansive protected areas of Africa. However, a landscape approach to conservation that includes: 1) expanding existing reserves and creating new reserves where possible; 2) linking proximal protected areas; 3) buffer zone management that provides benefits to the local communities from wildlife conservation and from other natural resources, and encouraging low-intensity land-uses that are compatible with wildlife use and dispersal; and, 4) invoking the traditions of the local people that once enabled a relatively benevolent coexistence with wildlife, can be Asia's surrogate to the vast reserves of Africa.

The Chitwan rhino conservation experience shows that a comprehensive conservation program built around strict protection of source populations can make effective rhino conservation outside protected areas possible. Because of buffer zone activities that have brought benefits to the local communities around Chitwan National Park from the presence of rhinos and other megavertebrate species, wildlife is not merely tolerated, but their presence is actually encouraged - such is the change in attitude.

As the world's largest and foremost conservation organization and advocate, WWF has charted a new course in conservation that emphasizes a holistic, landscape approach to conservation. We suggest that WWF's species conservation program can be most effective by focusing conservation resources in key areas within the overall landscape conservation framework, rather than by supporting largely unrelated projects in many areas. To this end, we have identified several conservation landscapes or Rhino Conservation Units (RCUs), to enable long-term conservation of the three species of Asian rhinoceros. The RCUs are: the Southern Brahmaputra Valley RCU, Jaldapara-Manas RCU, and the Central and Western Terai RCU for the Greater One-horned rhinoceros; Ujung Kulon RCU and Southern Indochina RCU for the Javan rhinoceros; and Gunung Leuser RCU, Kerinci Seblat RCU, Barisan Selatan RCU, Taman Negara-Belum RCU for the Sumatran rhinoceros.

We then prioritized among these RCUs to create a small portfolio of RCUs representative of the three species for WWF's international rhino conservation efforts. These consist of three Priority I RCUs, (Central and Western Terai RCU, Southern Indochina RCU, Ujung Kulon RCU, and Kerinci Seblat RCU), and two Priority II RCUs (Southern Brahmaputra Valley RCU, and Barisan Selatan RCU). We have selected both known populations of the Javan rhinoceros as Priority I because of the limited options for conservation of this species.

Finally, we present a set of criteria that can be used to evaluate and prioritize conservation project proposals within these RCUs on the basis of their urgency to secure and protect rhinoceros populations for long-term conservation. We emphasize, however, that this portfolio of conservation landscapes is for WWF's international conservation programs and is not meant for the national offices and programs which should prioritize and continue to focus on conservation areas within their respective countries and regions.

INTRODUCTION

The three species of Asian rhinoceros are among the most endangered mammal species in the world. Poaching of rhinoceros for the much-valued horn for use in the oriental medicine trade and large-scale habitat loss throughout their ranges have been the primary causes of population declines (Laurie 1978, Rabinowitz 1995, Menon 1996, Dinerstein in prep). Today, the three species of Asian rhinoceros, which were once widely distributed, are restricted to a few small protected areas.

Over two decades of conservation efforts to arrest and reverse the population declines even within the protected refuges have been largely unsuccessful (Rabinowitz 1995, Dinerstein in prep). But two notable exceptions stand out - the Greater one-horned rhinoceros in Kaziranga National Park in northern India and Chitwan National Park in Nepal have been brought back from the brink of extinction. Thus, it is time to take careful stock of conservation efforts to date and learn from the more successful programs. WWF, as the world's largest and foremost conservation organization, should take the initiative in adopting new approaches that incorporate these successes to further rhinoceros conservation.

Charismatic megavertebrates raise consciousness of conservation needs. Many of these megavertebrates are also keystone species that play a critical role in the ecosystems of which they are a part (Dinerstein and Wemmer 1988, Dinerstein 1991, Schoenwald-Cox et al. 1991, Wilcox 1984, Wikramanayake et al. 1998), or are wide-ranging umbrella species whose conservation requirements encompass the conservation requirements of smaller species and species assemblages (Owen-Smith 1988, Noss 1990, Schoenwald-Cox et al. 1991, Wilcox 1984, Wikramanayake et al. 1998, in press). These species are thus used as focal species in conservation programs; both for conservation management planning and for fund-raising. In Asia, the distributions of many megafauna species overlap, and a species-oriented, project-based approach will result in redundant funding. For instance, a project to strengthen the staff capacity in a protected area funded under a rhinoceros conservation program might also be funded through an elephant and/or tiger program, unless there is a coordinating mechanism to prevent such redundant funding. The low absorptive capacity in many governmental organizations will invariably result in these extra funds being misspent and will actually be detrimental to the function of the departments. Since conservation dollars are a limited commodity, it is essential that funds are wisely and effectively spent.

Thus, a holistic species conservation program will: a) help to conserve Asia's diminishing natural habitats by raising conservation consciousness; b) help to secure adequate habitat areas required for long-term, *in situ* conservation of large vertebrates; c) maintain the integrity of ecological communities by conserving functional ecosystems; d) enable more efficient use of scarce conservation resources.

We suggest that WWF's rhino conservation program identify areas with the greatest potential for long-term conservation, and take on a programmatic approach by:

1. reviewing past successes and failures, adopting and adapting the successes, and discarding the failures;
2. identifying a manageable portfolio of conservation areas with the potential for long-term rhinoceros conservation and directing conservation resources to these areas, rather than attempting to fund a number of projects in several areas with no target-driven, long-term objective;
3. prioritizing projects in these select areas using criteria that identify their urgency in contributing to a long-term conservation program.

WWF has already begun a process of objective allocation of conservation resources into a few important conservation areas (see Olson and Dinerstein 1998, Dinerstein et al. 1997). WWF, in partnership with the

King Mahendra Trust for Nature Conservation and the Nepal Department of National Parks and Wildlife Conservation, has also been involved in implementing one of the success stories in rhino conservation - the Chitwan project (Dinerstein in prep) - which provides many lessons for a good rhinoceros conservation program in particular and for megafauna in general.

We recommend that WWF's species conservation program conform to the organization's newly- charted course in conservation and integrate into a programmatic approach in a few focal areas. This will allow WWF to:

- focus its resources wisely and more effectively;
- provide expertise and technical assistance more strategically and effectively;
- and be able to influence the course of conservation and conservation approaches through successful conservation programs.

b) The Asian Elephant: Priority Populations and Projects for its Conservation

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INTRODUCTION

The Asian elephant (*Elephas maximus*) is a priceless biological and cultural heritage. It has been an integral part of the culture, religion and economy of the Asian peoples for at least 4000 years. It is a keystone biological species in the tropical forests of Asia. The conservation of the Asian elephant in the wild and in captivity would thus promote harmony between human development and nature and in conserving the rich bio-diversity of the South and Southeast Asian region.

Ironically, this charismatic species today faces a serious crisis that is largely unrecognised by the global conservation community. Elephant populations have declined substantially in all countries, with the possible exception of parts of India, during the past few decades. Even in India, the species has lost ground in the northeast, while in the south poaching for ivory threatens the genetic viability of the population. The population of Asian elephants today stands at between 35,000 and 50,000 in the wild with an additional 15,000 in captivity, a total population which is less than 10% of its much publicized cousin, the African elephant (*Loxodonta africana*).

Historically, the major causes for the decline of the Asian elephant have been capture for domestication and loss of habitat in the face of the expanding human population. Even today, the unsustainable capture (often illegally) continues in some countries, while human expansion continues to reduce and fragment the forest habitat, constricting elephant populations to small numbers which cannot survive in the long-term. Elephants inhabit some of the richest habitats in terms of bio-diversity in south and Southeast Asia. In these countries, the elephant habitat ranges from dry tropical thorn forest through deciduous forest and floodplains of rivers to tropical rain forest. These include, for instance, the following biodiversity rich regions:

Western Ghats in southern India

Eastern Himalayas in NE India, northern Myanmar, Laos and Yunnan in southern China

Rain forests of Sumatra, Peninsular Malaysia and Sabah

Tropical forests along the Laos and Vietnam borders where new species of mammals are still being discovered.

The largest surviving wild populations are in India (20,000-25,000), in particular in the northeastern states of Arunachal Pradesh, Assam and Meghalaya, and in the Western Ghats of southern India. There may be 2800-4,800 elephants still left on the island of Sumatra (Indonesia), with other major populations occurring