

# INDONESIA

## FLAGSHIP SPECIES

(635)

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Two species of rhino occur in Indonesia. While the Javan rhino *Rhinoceros sondaicus* is represented by a single population of about 60 animals confined to the Ujung Kulon National Park situated in the southwestern tip of Java, the Sumatran rhino (*Dicerorhinus sumatrensis*) occurs in a number of small, fragmented and isolated populations numbering about 300 animals across Sumatra and parts of Kalimantan (Indonesian Borneo). Both species — listed on Appendix I of CITES — are among the world's most seriously endangered large mammals.

These two rhino are Indonesia's flagship species. Indeed, despite the concern expressed and the measures adopted so far by Indonesia and international conservation organizations, few people would dispute that these conservation efforts, coupled with the ban on rhino horn trade, have failed to halt the decline of the two species in the wild.

Considered Indonesia's flagship species, the aesthetic value of the Javan and Sumatran rhinos arouses public emotions and attracts strong support for their conservation. Unfortunately, despite all efforts, the two species continue to be threatened by poaching and habitat loss. Both species have already disappeared from many parts of their former range in Asia, and the remaining isolated and fragmented populations continue to be extremely vulnerable to poaching and human encroachment.

The issue at the core of rhino conservation is whether to protect the species in their natural habitat within their former range in Indonesia (*in-situ* conservation) or to take some animals out of the wild and breed them in captivity in zoos for reintroduction in the distant future (*ex-situ* conservation).

Proponents of both conservation methods agree that, in the long term, the end result of their approaches must ensure the survival of the two species in their natural habitat. What the *ex-situ* conservationists fear is that the protection currently afforded to the two species of rhinos

in Indonesia may not be sufficient to prevent further decline in range and number.

Given this concern, the International Zoo Community, with the blessing of the IUCN, embarked on an ambitious project to capture the so-called "doomed" Sumatran rhinos for breeding in captivity both in Indonesia and abroad.

Between 1984 and 1993, a total of 18 animals (7 males and 11 females) were captured — 11 of which (4 males and 7 females) were exported. Of those 18 animals captured, so far 7 of them (1 male and 6 females) have died in captivity, a 39% mortality rate. To date, not a single animal has bred in captivity.

The entire project was also very expensive. International zoos and conservation agencies have given increasing

PHOTO: WNF/MIKE GRIFFITHS



A Javan rhino (*Rhinoceros sondaicus*)  
in the Ujung Kulon National Park, Java, Indonesia.



# INDONESIA



PACIFIC OCEAN

**Population:**  
179,300,000 inhab.

**Urban population:**  
28 percent

**Population density:**  
93 inhab./sq. km.

**Capital:** Jakarta

**Other cities:** Medan,  
Bandung, Surabaya,  
Padang.

**Language:** Bahasa Indonesia (national language). There are 583 languages and dialects belonging to different ethnic groups.

**Religion:** The majority is Muslim. There are also Protestants, Roman Catholics, Buddhists and Hindus.

**Currency:** Rupiah

**People:** Archeological remains point to Indonesia as one of the first places on Earth populated by Homo sapiens. More than 90 percent of the current population is of Malayan origin, largely from the Javanese ethnic group. There are also Chinese and Indian minorities.

**Geography:** Indonesia occupies most of the largest archipelago in the world. It is found on the equatorial line, covering a distance of approximately 5,120 kilometers. There are five main islands (Sumatra, Java/Madura, Kalimantan, Celebes, and Irian Jaya) and thirty other smaller groups. It is estimated that there are more than 17,000 islands, many of which are uninhabited. The lands are generally covered by thick tropical rain forest. Indonesia is noted for its large number of volcanos (some 400, of which 100 are active).

**Most endangered species:** Sumatran Elephant (*Elephas maximus sumatranus*), Javan Rhinoceros (*Rhinoceros sondaicus*), Sumatran Rhinoceros (*Dicerorhinus sumatrensis*), Malayan Tapir (*Tapirus indicus*), Sumatran Tiger (*Pantera tigris sumatrae*), Bawean Deer (*Cervus kuhlii*), Lowland Anoa (*Bubalus depressicornis*), Mountain Anoa (*Bubalus quarlesi*), Silvery Gibbon (*Hylobates moloch*), Mentawai Gibbon (*Hylobates klossi*). ☉

attention and funding to captive breeding schemes and re-introduction programs. But no matter how useful these programs are in support of other conservation efforts, they can never replace *in-situ* conservation.

The principal threats facing the Sumatran and Javan rhinos in Indonesia are poaching and habitat degradation.

**Poaching:** The value of rhino horn makes it inevitable that poaching will continue to be a serious threat in the years to come. The Sumatran rhino is a prime target for hunters throughout its range in Sumatra and Kalimantan. The dependence of this species on salt licks and other concentrated mineral sources makes it extremely vulnerable.

Poaching continues both within and outside protected areas. The exact number of Sumatran rhinos poached annually must be substantial, given that in 1990 alone at least 10 animals were killed in Kerinci-Seblat National Park in West Sumatra. Several of the rhinos captured in the Torgamba forest for captive breeding had snare wounds on their legs.

In the early 1960s, one-third of the Javan rhinos fell victim to poachers. Although the incidence of poaching seems to have declined to some extent since 1967, it still remains a serious threat to the Javan rhinos in Ujung Kulon National Park on account of their small numbers (about 60 animals).

Controlling poaching must therefore remain the key thrust of any conservation program. It is now generally accepted that in poor countries large conservation areas and sizeable populations of large mammals – especially megaherbivores (those plant-eating animals that attain a body weight in excess of one metric ton) – can only be maintained if substantial funding is given to enhance protection by park rangers.

Sumatran rhinoceros (*Dicerorhinus sumatrensis*), Indonesia.



PHOTO: WWF/ALAN COMPOST

**Habitat degradation:** The conversion of forest to agriculture and other forms of land use is one of the most serious threats facing all large mammals, including the rhino in Sumatra. Changes in land use patterns are leading to the continuous contraction of the rhino's habitat, destroying forest corridors that act as bolt-holes for the rhinos to move from one forest block to another. It is estimated that between 65 and 80 percent of the lowland forest in Sumatra has already been lost.

Human activities along the eastern border of Ujung Kulon National Park pose another problem facing the Javan rhino. They have not only encroached into Javan rhino habitat but, more seriously, they provide a means for the spread of diseases brought by domestic cattle into the park from outside. In the early 1980s five rhinos (representing almost 10 percent of the population) died in Ujung Kulon, possibly from an epidemic disease.

As far as Sumatran rhino conservation is concerned, while the need to retain large tracts of undisturbed climatic ecosystems is axiomatic, stopping commercial exploitation of timber in forests managed as habitat for the rhino is not as urgent: exercising strict control is sufficient. Sumatran rhinos are known to utilize logged-out areas where there is an abundance of regenerating plants.

In the final analysis, the safest, easiest, and cheapest way to protect the two species of rhino in Indonesia is *in-situ* conservation. Better protection of Ujung Kulon in Java and other reserves in Sumatra would not only safeguard the two species of rhino but many other wildlife species that are sympatric with the rhinos as well. If the Ujung Kulon population of Javan rhino grows, it may be possible to remove a very small number of animals to found a second population elsewhere in Indonesia within the Javan rhino's former range.

By using the Javan and Sumatran rhinos as symbols of conservation, it should be relatively easy to elicit international support for Indonesian rhino reserves. Zoos have played a key role in captive breeding and reintroduction programs. They could also play an equally important role in improving the protection and viability of rhino habitats.

Conservation of the two species of rhinos in Indonesia should not be considered as showing preference for this so-called "charismatic" species: it provides a practical means for enhancing the country's overall conservation capacity. If the Sumatran and Javan rhinos are Indonesia's flagship species, their conservation will help maintain biological diversity across a substantial area of Indonesia. ●