

About the Species

The Javan or lesser one-horned rhino (Rhinoceros sondaicus sondaicus) is probably the rarest large mammal species in the world, and is on the brink of extinction. Classified as critically endangered in IUCN Red List, no more than 50 individuals are estimated to survive in the wild, and there are none in captivity.

Only one population of Javan rhino survives in Indonesia, in Ujung Kulon on the island of Java. The only other population in Vietnam has been declared as extinct. The Javan rhinoceros has been protected since 1931 in Indonesia. Ujung Kulon National Park in south western side of Java has been designated for the conservation of this species in 1992.

Ecology and Habitat

Javan rhinos were once found inhabiting the areas surrounding all major volcanoes in west Java, some of which are 3,000m above sea level. During the 1960s an estimated 20-30 individuals remained in Ujung Kulon National Park. The population doubled from 1967 to 1978, after rigorous protection (supported in part by WWF-Indonesia) was put in place. Since the end of 1970s, population numbers appear to be stable with a growth rate at the average of 1% per year (maximum estimation).

Physical Description

- Small horn about 25 cm in male rhino, females have a smaller or no horn.
- Weight ranges between 900
 2,300 kg, body length of 2 4 m, reaching up to 1.7 m in heights.
- Grey in color with small dotted mosaic in skin surface.
- Male rhino reach sexual maturity after 10 years, while female at approximately 5 to 7 years. Gestation period approximately 15-16 months.
- Pointy upper lip, useful to grab on leaves and branches.

Ujung Kulon has an estimated carrying capacity of 50 rhinos, based on home size range and habitat condition. However, rhino numbers have not increased significantly for some years, indicating that carrying capacity might have already been reached. Due to the limited carrying capacity of the national park and to prevent extinction caused by natural disasters or disease outbreak, experts suggest a second habitat is required to sustain rhino population. Some of the candidate areas are: Baduy forest, Halimun-Salak National Park, Sancang Reserve, and Cikepuh Reserve.

Threats

Although poaching poses a potential threat to the rhinos, no poaching incidents have been reported since the 1990s due to effective law enforcement by the park authority coupled with initiatives like Rhino Monitoring and Protection Unit (RMPU) and Coastal Patrol. Immediate threats to Javan Rhino population come from:

Reduced genetic diversity and Natural Catasthrope

The small size of the Javan rhino population is in itself a cause for concern. Low genetic diversity could lower the rhinos' ability to survive natural disasters or diseases. As a result, natural catastrophes such as volcano eruptions or earthquakes, diseases, and genetic drift remain the main threats to the species.

Habitat loss and degradation

Another threat to the Javan rhino is the increased demand for land caused by rising human populations. Clearance of forests for agriculture and commercial logging are occurring in and around the protected area where these animals occur.

WWF's work for Javan Rhino

WWF and its partners monitors the rhinos through camera traps and fecal DNA analysis. Since the first installation in 2001, 14 rhino births have been successfully documented by camera and video trap operated by WWF in collaboration with Ujung Kulon National Park Authority. Such monitoring indicates that the population is still breeding and producing calves. WWF is also working with local communities to create awareness and generate alternative livelihoods.

Starting from February 2011, camera and video trap management is fully transferred to National Park Authority, while WWF shifts its focus to: observations of rhino behavior, feeding patterns, and investigation of risk of disease



outbreak. Rhino behavior observation provides population managers with information on how the rhinos interact with the surroundings, as well as providing information useful for monitoring the physiology (respiration rate) to indicate levels of stress and wellbeing of each individual rhino.

Currently, WWF is working with Bureau of Forestry, National Park authorities, and local people to assess the possibility of setting up a second habitat and translocate some of the rhinos (pre-selected for health and reproductive viability) to initiate a new population while maintaining the original population in Ujung Kulon National Park.

