

## **Rhino Protection Units: The Front Line for Ensuring the Survival of Indonesia's Critically Endangered Rhinos**

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Indonesia is home to two of the world's five rhino species, both of which are Critically Endangered. The rarest of the rhino species, and the most endangered large land mammal in the world, Javan rhinos exist only in Indonesia's Ujung Kulon National Park and Viet Nam's Cat Loc Reserve. Surveys in Ujung Kulon in December confirmed that between 38 and 44 animals inhabit the park. The Viet Nam population is thought to contain no more than three to five individuals, and the age structure and sex ratio of the population is unknown.

No more than 200 Sumatran rhinos survive in fragmented populations on the islands of Sumatra and Borneo. In early 2008, surveys in Sumatra's Bukit Barisan Selatan National Park found that there are between 50 and 70 animals in the park. Way Kambas National Park holds an estimated 27-35 adult rhinos, plus four to six juveniles. This population was only (re)discovered in 1993 and may have been larger before the catastrophic fires of 1997. The lowland forests of Way Kambas National Park are under severe pressure from local communities looking for suitable agricultural lands. In 2009, surveys will be conducted in northern Sumatra's Gunung Leuser National Park – the only other major site in Indonesia where Sumatran rhinos exist.

Over the past 10 years, losses of Sumatran and Javan rhino have been nearly eliminated in Indonesia through intensive anti-poaching and intelligence activities by Rhino Protection Units (RPU), which are operated by *Yayasan Badak Indonesia* (YABI, or the Indonesian Rhino Foundation) and funded through the International Rhino Foundation (IRF). These units have kept the two species from becoming extinct and are critical for their continued population recovery.

Attention to rhinoceros preservation and protection in Indonesia only began in the 1990s. Rhinoceros experts and conservationists attending the Sumatran Rhino Population and Habitat Viability Analysis workshop in Lampung (Soemarna et al., 1993) called for the establishment of RPU to ensure rhinoceros population sustainability and survival.

RPU were first established through support from United Nations Development Program's Global Environment Facility (UNDP/GEF). The first RPU was established in Air Hitam (Bengkulu Province) on July 15, 1995, followed closely by Gunung Leuser National Park in northern Sumatra. RPU later were created in areas such as Kerinci Seblat and Way Kambas National Parks. After the UNDP/GEF funding

ended in 1998, the IRF collaborated with Indonesian Department of Forestry, the IUCN/SSC Asian Rhino Specialist Group and *Yayasan Mitra Rhino* (YMR, or Friends of the Rhino Foundation) to support the continuation of RPUs. Other RPUs were added in Bukit Barisan Selatan and Ujung Kulon National Parks. Funding for the Indonesian RPU program through the American Association of Zoo Keepers Bowling for Rhinos Program began in 1996 and initially focused on Ujung Kulon National Park through the Minnesota Zoo's former Adopt-a-Park program, and later Indonesia-wide through the IRF.

Eight RPUs operate in Bukit Barisan Selatan National Park in Sumatra, one of the highest priority areas for Sumatran megafauna. In addition to its rhinos (the second largest population in the world), around 40-50 Sumatran tigers and around 500 Asian elephants inhabit the park. Five patrol units operate in Way Kambas National Park, which has the third largest population of Sumatran rhinos, and is also the site of the Sumatran Rhino Sanctuary. Four patrol units operate in Ujung Kulon National Park, home to the only remaining viable population of Javan rhinos.

RPUs rigorously patrol forests to destroy snares and traps (the main method of poaching for these species) and apprehend poachers, spending an average of 15 days per month in the forest. By gathering intelligence from local communities, RPUs also proactively prevent poaching attempts before they take place.

The RPUs' task is to protect and conserve rhino in its habitat and to:

- Patrol the forest to prevent area violation and poaching, find and destroy equipment that can threaten rhino, capture and secure evidence
- Conduct law enforcement activity for enforcement/investigation
- Survey and monitor rhino and other important large mammals, such as tiger, elephant, tapir and deer
- Intelligence operations to obtaining important information for law enforcement

Each RPU is led by a park ranger, who has the authority to carry firearms and arrest suspected poachers. The other three members of the RPU are recruited from local communities and are armed only with pepper spray for subduing uncooperative suspects. Recruits undergo a rigorous selection process that includes running, swimming, hiking, and other physical activities, followed by an intensive training course. Training includes classroom instruction and field exercises, including navigation, record taking and law enforcement practices. Only candidates that pass the final test are recruited. The RPU program is a unique collaboration, which combines government officers and communities to professionally secure and patrol national parks and to contribute to good park management.

In the areas where IRF and YABI work, RPUs have been very effective in protecting rhinos from poachers - only five Sumatran rhinos have been lost to poachers since the beginning of the program, and no Javan rhinos have been killed. By virtue of the RPUs' consistent presence and patrolling, other species, such as Sumatran tigers and elephants also benefit, as does the ecosystem as a whole. Even though RPUs focus on securing rhinoceros' habitat, they handle many cases of poaching of other species such as deer, elephant, and tiger, and also apprehend and assist in prosecuting illegal loggers.

Poaching and habitat loss are the primary threats to the survival of Javan and Sumatran rhinos. Illegal encroachment on National Park territories occurs throughout Indonesia, with local people cutting down forests to grow crops. Human pressure on wildlife (and parks) is mainly a result of poverty (resulting in needs for more agricultural land and encroachment).

The RPUs are also working to address this pressure. Local communities in the area around Bukit Barisan Selatan National Park have farmed coffee in extensive plantations for some time. Because world coffee prices have been low for many years, and because coffee tends to deplete the soil quickly and can be harvested only once a year, farmers have been forced to continuously expand their coffee plantations just to maintain their current levels of income. These expansions have resulted in increased encroachment and habitat destruction. Within the Park, overstretched rangers have been unable to prevent and reduce encroachment or other illegal human activities.

The RPUs and the Intelligence and Law Enforcement Unit (ILEU) in Bukit Barisan Selatan have continued their core activities in the area, and in addition to deterring encroachment through enforcement, they also have been working to offer positive incentives to communities to truly halt encroachment over the long-term. Park authorities intend to provide these incentives through community outreach and development, and because the RPUs and the ILEU have such good relationships with local communities, they were asked to help.

Local people are interested in developing more sustainable agricultural crops than coffee (e.g., cacao, which has higher yields and brings higher prices). Park authorities (and the RPUs) have been working to promote cacao production, because it is significantly more environmentally-friendly than coffee. Cacao does not require land clearing or massive irrigation, and can be grown as part of a mixed natural forest system in park buffer areas. For the past several years, the Bukit Barisan Selatan National Park Authority has undertaken a development program, primarily focused on cacao production, for local villages within the Park's buffer zone. The RPU and ILEU members have assisted with this effort, volunteering their personal time. To date, at least 46 villages out of a total of 120 villages in the buffer zone have participated in this program. Farmers who participate in the program receive cacao seedlings, and training on planting and care of trees, integrated pest management, harvesting, and marketing. In return, they eventually sign community agreements pledging not to encroach in park areas, and provide intelligence to the RPUs that leads to apprehensions of poachers and encroachers. This program has helped to decrease, and even slightly turn back, encroachment in the southwest portion of the Park – in some areas as much as 60 percent.

The threats facing Indonesia's Critically Endangered rhinos, and our need to conserve them while engaging local communities with incentives and education programs to protect their ecosystems, will continue to increase over time. The International Rhino Foundation and its partner Yayasan Badak Indonesia are grateful for the support of the AAZK Bowling for Rhinos program whose contributions to support the RPUs protect 90 percent of the Javan rhinos and 60 percent of Sumatran rhinos left on Earth. AAZK's continued involvement and commitment will most surely help to prevent their extinction.

## References

Soemarna, K., Tilson, R., Ramono, W., Sinaga, D.W., Sukumar, R., Foose, T., Traylor-Holzer, K., and Seal, U.S. (1993). *Sumatran Rhino Population and Habitat Viability Assessment*. Workshop Report. IUCN/SSC Conservation Breeding Specialist Group, Apple Valley, MN, USA.