

New Project: “Securing Indian Rhino Populations in Assam through Translocations – Indian Rhino Vision 2020”

ARP has been generously awarded \$10,000 from the Taronga Conservation Society Australia for the relocation of rhino as part of the Indian Rhino Vision 2020 program.

Project Summary

In April 2008, as part of Indian Rhino Vision 2020 (IRV 2020), a partnership among Assam Forest Department; ARP’s Partner, the International Rhino Foundation; WWF-India and other NGOs, the much anticipated translocations of Indian rhinos commenced with the movement of two males from Pabitora Wildlife Sanctuary to Manas National Park in Assam. The IRV 2020 goal is to “increase the total rhino population in Assam from present numbers to 3,000 by 2020, and to ensure that these rhinos are distributed over at least seven protected areas to provide long-term viability of an Assam metapopulation.”

The first translocation has produced initial positive results, and will be followed by the translocation of another 18 animals to Manas in November/December 2009. IRV 2020 will be achieved by a combination of rhino translocations and improved protection, with other translocations planned for the future. Support for moving rhinos to Manas in the local administration and among local communities is in place, as is enhanced security within the Park.

The key to the success of the initiative will be the safe capture and translocation of the animals as well as the ability to both continuously monitor and provide for their security. The cost of translocating one rhino is around AUD 5,000, thus translocating up to eighteen rhinos requires funding of around 90,000 AUD.

Conservation Benefit

a) Expected Measurable Outcomes

Currently, more than 85% of the Indian rhino population inhabits one protected national park, Kaziranga, exposing the population to the risk that a single catastrophe such as a flood or disease outbreak could again lead to serious population decline. Additionally, a smaller population of rhinos (approximately 100) living in Pabitora National Park have exceeded the park’s carrying capacity, leading to an increased risk of rhino-human conflicts as animals move out of the park and into agricultural areas to forage for food.

As part of the IRV 2020 program, ARP is assisting our partners, with the aim to translocate 18 rhinos to Manas NP in November/December 2009.

The expansion of the distribution of Indian rhinos will reduce stochastic risks and reduce the population pressures in any single habitat by ensuring a better distribution of rhinos over suitable ranges. This is essential for the species’ metapopulation management and long-term survival.

The expected conservation output of this project will be the successful establishment of an Indian rhino population in Manas National Park. Rhinos once flourished in this park but due to heavy poaching pressures in the past, only small numbers remain.

b) Expected Conservation Scope of the Project

The expected conservation scope of this project will be the successful re-establishment of the Indian rhino population in Manas National Park. The expansion of the distribution of Indian rhinos will reduce stochastic risks and reduce the population pressures in any single habitat by ensuring a better distribution of rhinos over suitable ranges. This is essential for the species’ metapopulation management and long-term survival.

c) Anticipated Scenario if Action is Delayed or No Action is Taken

Poaching pressure remains high within India and Nepal. In 2008, 26 rhinos died at the hands of poachers in Assam, and at least eight were poached in Nepal, where populations are highly fragmented and difficult to protect. Already in 2009, at least 17 rhinos have been poached in India and Nepal. These events occurred mostly during the rainy season when animals were forced to leave their normal ranges for non-flooded areas.

Any delay in translocations may further increase the risk of poaching within these areas, as well as force rhinos out of highly populated areas into the hands of poachers.

d) How Long Will the Project Continue to Deliver Benefits and What is the Required Ongoing Input?

The IRV 2020 program will continue to deliver benefits to the Indian Rhino Population up until 2020. We will know that the project is a success when the translocated population is established and breeding in its new home in Manas National Park.

Probability of Success

e) Describe the project design and how this will logically lead to the stated expected outcomes.

Rhinos will be selected for translocation based on their age, sex, health and other variables as laid out in the Translocation Protocol for Indian Rhinos, which is based on successful translocations carried out in Nepal between 1986 and 2003. The methodologies outlined in this document have been approved by the Government of India and the provincial Government of Assam. Current plans call for at least eighteen rhinos to be translocated into Manas NP. These will include four male and four female rhinos from Pabitora and three male and seven female rhinos from Kaziranga.

Up to four selected rhinos per translocation effort will be immobilized with etorphine hydrochloride (M99) from elephant back. Rhinos will be monitored by a team of veterinarians during transportation and prior to release. Post-release, animals will be monitored using radio-collars and direct observation, both from elephant back and on foot. Translocations were not allowed to begin until the Assamese government could ensure that Manas National Park was secure for rhinos.

Measures undertaken include building a number of new camps and making operational old camps for protection patrol teams to use, in addition to recruiting and training ~150 new guards from local communities. A new wireless network for communication and vehicles for transportation also have been provided to quickly foil illegal incursions into the Park. A fence is also being constructed along the southern border of the park to prevent park encroachment and to keep translocated rhinos from wandering out of the park and into unsafe areas. Effective translocation, monitoring and survival of these first ~20 rhinos to Manas National Park will be the key indicator as to the probability of success for subsequent phases of IRV 2020.

Monitoring of a translocated rhino will begin immediately upon arrival by a team of biologists with all necessary equipment organized to track the rhino using its radio collar and visually. Initially, the rhinos will be monitored for properly settling in at the new location. The team will also monitor the behaviour and habitat use of the rhinos over the long-term.

A team of at least two biologists will locate each rhino on a daily basis and observe them over the course of the day for overall behaviour and well-being. Location data will be transformed onto a GIS domain with layers of vegetation mapping and other management parameters. These analyses and conclusions will provide critical data for improving management practices and identifying other needs for making the program successful, in addition to providing information and experience for further translocations, and management of protected areas.

IRV 2020 is part of a long-term program and part of ARP's, IRF's and WWF's commitment to conserving Indian rhinos. As such, it is monitored regularly by IRF's Asian Rhino Coordinator (position funded by ARP) and by WWF-India personnel. Quarterly reports are provided by WWF-India and partners that allow monitoring and evaluation of the project's success on a regular basis. We will know that the project is a success when the translocated population is established and breeding in its new home in Manas National Park.

f) Is the project embedded into the local community and governments, does it incorporate capacity building into the plan, and have buy in from governing bodies?

In addition to training more than 150 community members as guards and monitors, the IRV 2020 team has coordinated with the local political and civil leadership to organize public meetings and other activities to cultivate community involvement in and support for the rhino conservation program. There has been a long history of conflict between wildlife and people in Assam. To cultivate public support in favour of rhino conservation in particular and wildlife conservation in general, the IRV 2020 team has employed a two-pronged strategy of providing local employment and training, combined with regular public meetings and communications, to build an atmosphere that favours conservation in and around

Manas National Park. At least three large meetings per year are held with local parties, including the Bodo Territorial Council, to continue to engender support for IRV 2020. Additionally, local community members are hired for any employment opportunities that arise, including construction of the fence along the southern border of the park.

With a program as significant as the rhino translocations in Assam it is critical to communicate the correct information on the program to all constituencies, in particular, via the media. The IRV 2020 has a Communications Strategy which will guide these interactions, with a short-term aim of at least three major stories per year about post-translocation events. Because of the sensitivity of the moves, the Government of Assam will closely manage

media coverage of the first translocations, and will organize press conferences for releases of print and photographic coverage.

This is the second grant awarded to the ARP from the Taronga Conservation Society Australia. The support from Taronga Zoos has been outstanding with funding last year for a rhino rescue program around Kaziranga National Park and the Vision 2020 program this year. Taronga Zoos also supports ARP through professional support of Dr Benn Bryant to the ARP Veterinary Support Team and the whole of the ARP NSW Branch are Taronga Western Plains Zoo staff. This valuable support is greatly appreciated and goes a long way to helping us help the rhinos. Thank you!

Javan Rhinos Share Wallow Holes: Impact of Climate Change?

Javan rhinoceros (*Rhinoceros sondaicus*) in Ujung Kulon National Park, Banten-Indonesia are known as solitary mammals, for the tendency of these animals to roam individually (except during mating season, or when nurturing the young calves). However, the recent finding from video trap equipment is not consistent with the above view. During the months of September and October, the survey teams were perplexed by the occurrences of several video clips from different parts of rhino habitat in Ujung Kulon National Park that show two male rhinos wallowing together as a "pair" (at the same time in the same wallow holes). Other than pairs of mother and calf, this "communal" wallowing behavior of male rhinos was never previously recorded; thus adding on to the list of activities (ethogram) comprising the behavior of the Javan rhinoceros.

Further investigation in the field revealed that during this period (the dry season) many of the wallow holes, as well as any sources of water are depleted. Some of the wallow holes are completely dry, rendering the spot useless for rhino wallow. Previous observations indicate that wallowing is a major requirement in rhino's daily life, so wallow holes / water depletion would force the rhinos to find alternative sites for wallowing. Is this an example of climate impact on rhino's habitat? No one can know for sure, but climate modeling and prediction calculated by a team from Bandung Institute of Technology (ITB) showed a

tendency of drier climate in Ujung Kulon National Park for the next ten years. Drier climate would mean more severe water and wallow holes depletions in the Javan rhino habitat, and consequently we could predict higher occurrences of such "communal" wallowing. Therefore, this behavior can potentially be used as an indicator of climate change impact on the behavior of the rhinos.

The next question from derived this finding is: how will the water and wallow hole shortage affect the well being of the rhino in terms of stress level and other physiological effects? Hormonal assay from feces, as well as the study of water deprivation using animal model are being discussed to provide more insight to anticipate and prevent harmful effects to the endangered javan rhinoceros.

Article: Adhi Rachmat Hariyadi – WWF Indonesia
Photo: Ujung Kulon NP – WWF Indonesia

