

# **Translocation of Rhinos within Assam :**

## **A successful first round of the second phase of translocations under Indian Rhino Vision (IRV) 2020**

Dev Mangal Singh<sup>1</sup>, Amit Sharma<sup>2</sup> and Bibhab Kumar Talukdar<sup>3</sup>

### Introduction

The conservation of the Great Indian One horned Rhino (*rhinoceros unicornis*) is being regarded as the epitome of conservation movement in the country and Assam in particular. Assam is also regarded as the last stronghold of the Indian Rhino with more than 2000 rhinos in the wild. Planned initiative in terms of rhino conservation in Assam by the Department of Forest with the help and support of many agencies including local populace made it possible to build up the population of rhinos to 2048 in Kaziranga National Park, 64 in Orang National Park, 84 in Pobitora Wildlife Sanctuary (Census, 2009) and 5 rhinos are also found in Manas NP of which two were introduced through wild to wild translocations and three were introduced under the rehabilitation program. While the successes in conservation of rhino was achieved in the above mentioned three protected areas, however despite all efforts by the forest department the rhinos could not be saved in a few PA's like Manas, Laokhowa and Burachapori.

The conservation of rhinos specifically in Assam and India in general has been a great success looking into the population figures and trends. However the point to think about is that the population is confined to only limited areas and more than 90% of the population is found in Kaziranga NP alone. For long term conservation of the species, the Indian Rhino Vision 2020 (IRV2020) has been designed which is a joint program of the Department of Environment and Forests, Government of Assam, World Wide Fund for Nature – India (WWF-India) and the International Rhino Foundation (IRF). The US Fish and Wildlife Service (USFWS), the Bodoland Territorial Council and a host of other organizations from different parts of the globe are extending support to the program that aims to increase the rhino population in Assam from about 2000 (in 2005) to 3000 by the year 2020 distributed over seven Protected Areas (PAs) of the state.

Range expansion through wild to wild translocations is a main component of the IRV2020 program and two male rhinos from Pobitora WLS were already successfully translocated to Manas NP in April 2008 during the first or training phase of this program.

To execute the translocation operations and to co-ordinate all activities related to translocation the Task Force for Translocation of Rhinos within Assam re-constituted a “**Translocation Core Committee (TCC)**” on 1<sup>st</sup> January 2010, headed by Mr. D.M. Singh as the Chief Operations Officer (COO) and Mr. Amit Sharma (WWF) as the Deputy COO . The other members in the committee are Dr. Bibhab Talukdar (Aaranyak), FDTP Manas, Director Kaziranga NP and DFO Guwahati WL Division.

### The Translocation Operation

The process of translocation can be divided into three distinct stages depending on the type of activities to be accomplished and each activity is very crucial, viz., - the preparatory stage; the implementation stage and the post-release stage.

**A. PREPARATORY STAGE:** The first step in any operation involves the planning at the most detailed level covering the minutest of things for a successful implementation. The TCC during the last year met to discuss these various aspects among themselves and others as deemed necessary. The biggest challenge during this period was to procure the tranquilizing drug and other accessories used for immobilization of the rhinos. The drug Etorphine Hydrochloride and its antidote Naltrexone Hydrochloride was imported from Wildlife Pharmaceuticals, South Africa with help from WWF. The processes to procure other accessories specially the chargers are still under process and the present round of operations is planned with the existing stock available with the Assam State Zoo and Dr. Kushal K. Sarma. The crates stored in the state zoo got damaged primarily due to weather and ground conditions and all the four were strengthened, repaired and modified for more effective use and easy handling. The radio collars to be fitted on the rhinos were imported from Africa Wildlife Tracking, South Africa with help from WWF. As a part of the preparations, monitoring of rhinos was done in the capture site to identify probable rhinos for capture as well as to select the capture locations. In the release site necessary preparations were done that included training, ramp preparations and others as necessary. Keeping in view the various activities to be carried out seven sub-teams under TCC were formed with members picked who had earlier experience or expertise of handling the pre-identified responsibilities smoothly.

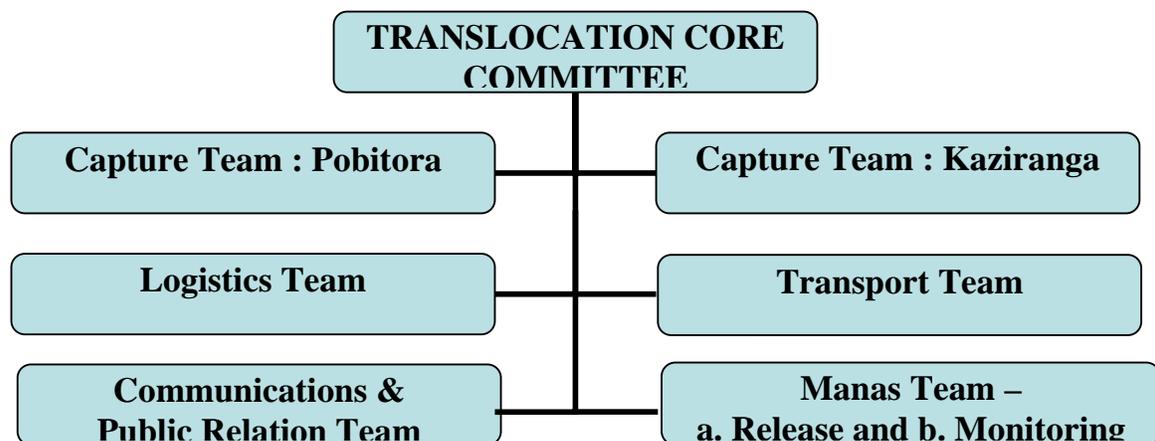


Chart1 – TCC and sub-teams



Plate1 – Pre-capture assessments



Plate2 – Checking the crates

**B. IMPLEMENTATION STAGE:** This stage includes locating the rhinos of suitable age and sex, capturing, transporting and then releasing the rhinos in the destination.

The first round of translocations was fixed to be conducted during 27<sup>th</sup> to 29<sup>th</sup> December 2010. On 27<sup>th</sup> Dec2010 a meeting was arranged for all the teams to take stock of the final preparations and to identify gaps if any. Mr. R.M. Singh a top official of the Assam Police also attended the proceedings and briefed all on the security aspects and arrangements for the whole operation. The crates and its operations, the radio collars and all other equipments were checked and tested. On 27<sup>th</sup> Dec2010, the support staff involved that included the drivers, assistants, labors, etc were briefed on the different aspects in the Assam State Zoo from where all proceeded to the capture site. Briefing and strategies were also discussed in the evening prior to the capture and all preparations were given a final touch. The trucks with crates, cranes, excavators, etc all reached the capture site by the evening and as per the strategy devised they were positioned in two different parts of the sanctuary. One set with two trucks and crates was positioned at Kukari camp which is near to one of the capture location and the other with two more trucks and crates were positioned at Haduk which was closer to the second probable capture site.

On the day of actual capture i.e. – 28<sup>th</sup> December2010 at Pobitora WLS, the area was cordoned off and full security cover was provided by the personnel's of the Assam Police department. The preparatory works that also included the search for the rhinos started at about 5.45AM under foggy conditions from Tuplung camp. On receiving information of rhinos in the Pagladoba area the veterinarians along with rhino identifiers started the move on the back of trained elephants at about 6.15AM. The aim was to capture female sub-adult rhinos but even after a lot of effort appropriate rhinos could not be identified for the capture and in a couple of cases the presence of water-bodies close-by posed a problem. After a lot of efforts one rhino could be tranquilized at about 8.00AM near Tuplung but it ran a long distance (more than 500mts) dodging all barriers to ultimately jump into a water body. Immediate action was taken to keep the rhino above the water level and it was immediately reversed back and pulled / pushed to safety with utmost care and full precaution within about 4 minutes. The team thereafter took a break for breakfast and chalked out new plan. After agreement to the plan the veterinarians, rhino identifiers and a few support staff moved to the second location Tamulidoba. The rest of the team along with the logistics team also followed slowly to Haduk camp which is nearest to the capture area so that on any information support can be provided immediately. After a lot of hard work as a number of darting efforts failed due to syringe breakage the first rhino an adult female with a calf (~3 years) was successfully darted around 11.15AM and the rhino was fully immobilized after a long duration of about 30 minutes. Thereafter post-darting activities were carried out by the veterinarians following the standard protocol. VHF radio collar was also fitted on to the rhinos and ear notching was done for easy identification. This rhino was numbered 3 as two rhinos were earlier moved to Manas in 2008. After these operations, the logistics team moved in with excavators, labors, trucks and crates for the following operations. The sledge was placed appropriately adjoining the rhino after digging the ground as per the necessary specifications. The rhino was then rolled on to the sledge with the help of ropes and then it was pulled towards the open doors of the crate. After aligning the sledge with the crate, it was pulled inside over the ramp with the help of an excavator steered by experienced persons taking all care not to injure anyone during the tricky operations. After the sledge with the rhino was put inside the crate the doors of the crate was pulled down using the innovative chain-pulley mechanism. One side was fully closed and the other side was open at minimum levels for the application of the reversal. On the application of the reversal, the rhino was up in its feet in about a minute's time and the

sledge was pulled out and simultaneously the door was fully closed and reinforced with the iron bar locking systems. The process till crating ended at about 1.20PM and the crate was loaded later on to the trucks as the team had to attend to the next rhino. The second rhino which was the calf had to be guided to a safe distance with the help of elephants and was monitored closely and once the veterinary procedures were completed in the first one, the calf was darted at about 12.30PM. The same procedures were carried out before the second rhino which was also a female was crated at about 2.10PM. The second rhino was not fitted with a collar after a discussion with an assumption that since the rhinos are a mother and calf combination they would re-unite after release and stay together in Manas. Thereafter both the crates with the rhinos were loaded on to the trucks with the help of cranes and the process was complete by about 2.40PM. The trucks loaded with the sedated rhinos were parked in shaded areas and the rhinos were monitored by the veterinarians and watered at regular intervals.

The movement of the rhinos in convoy started from Pobitora WLS at about 6.00PM in the evening to Manas NP under the supervision of a dedicated team. A Police escort vehicle with flashing lights led the convoy with the rhinos, and the traffic of cities and towns was regulated throughout the journey by the police to make way for the convoy to pass by. The transportation route was followed the same as selected by the TCC via Chandrapur-Narang-VIP road-Khanapara and NH-37. En-route weighing of the trucks with the empty crates as well as the fully loaded truck was done in the same station to obtain the weight of the respective rhinos. One of the rhinos weighed 1840 kgs. and the second one weighed 790 kgs. The distance of 240 kms from Pobitora WLS to Manas NP was covered in about twelve hours due to slow movement of vehicles in the interest of comfort and safety of the rhinos. The veterinary team kept monitoring the rhinos at regular intervals and water was poured over them periodically. The vehicles in the convoy kept in contact with each other through walkie-talkies. The convoy of vehicles carrying the two female rhinos stopped at pre-arranged areas for food and rest and ultimately reached Basbari, Manas NP at about 5.30AM.



Photo – Dipankar G. / WWF-India



Photo – Dipankar G. / WWF-India

Plate3 – Capture process in progress

Plate4 – Loading of the crates with the rhinos

On the convoy reaching Manas the release team who made all pre-arrangements for the release took over. Two ramps were prepared for parking the trucks for the release near Buraburijhar camp. The crate with the calf was unloaded from the truck to be placed close to the crate of the mother so that they can come into contact easily. The plan was to release the rhinos when the visibility was good at about 8.00AM. The door of both the crates was opened together at about 8.15AM so that the rhinos get the chance to come out simultaneously. The calf came out first at about 8.28AM and moved towards the mother and both came very close and then moved northwards towards the grasslands. The mother also came out at the same

time and moved towards the crate that had the calf and not finding anything demonstrated a very aggressive behavior and ran off in a westerly direction. By 8.30AM both the rhinos were roaming freely in the wilderness of Manas National Park in different directions. The released rhino were monitored closely by the monitoring team.



Plate5 – Preparing for the release



Plate6 – Release of the rhinos in Manas

**C. POST-RELEASE STAGE:** This stage involves regular monitoring, patrolling and protection of the released rhinos in Manas NP. Regular monitoring of the rhinos is followed in Manas as a continued process under the supervision of FDTP Manas and Deputy FDTP. The field monitoring team at present comprises of foresters, forest Guards staff assisted by home guards and volunteers, technically supported by a team from WWF-India.

The rhinos are presently seen to be exploring the areas under Basbari range. The adult female rhino named as Rhino 3 moved towards the south and as observed during the first few days after release is seen to be using the areas near the southern boundary near Rhino Camp and Kureebeel. The female calf named as Rhino 4 moved towards the north and was a bit difficult to monitor and observe as it did not have a radio collar. Rhino 4 was mainly using the central areas near to the site of release and probably met the mother only after five days. The lacerated wounds observed in the rhinos at the time of release are at present completely healed and both the rhinos are behaving normally adapting well in the new environment.

## Conclusion

Two more rhinos, this time females have been captured and released freely within twenty-four hours successfully for reviving the Manas NP. The success achieved in the first round of the second phase of the translocation has boosted the moral of all the people associated with the process directly or indirectly. These two females have joined the two male rhinos translocated to Manas NP from Pobitora WLS in April 2008. By April 2011, the plan is to translocate another sixteen rhinos into Manas NP from both Pobitora WLS and Kaziranga NP to make it a self viable population in years to come.

The Translocation Core Committee headed by Mr. D.M. Singh as Chief Operation Officer takes the opportunity to thank and acknowledge the help offered by all directly or indirectly contributing to the success of the first round of the second phase of the translocations under the IRV 2020 Program.

## References

1. Bonal B.S., Talukdar B.K. & Sharma A. (2008) : Indian Rhino Vision (IRV) 2020 – Training cum Translocation of Rhinos within Assam, the First Phase ([www.assamforest.in](http://www.assamforest.in))
2. Bonal B.S., Talukdar B.K. & Sharma A. (2008) : Translocation of Rhino in Assam, Tiger Paper, Vol. 36: No. 1 January-March 2009
3. IRF (11/1/2011) : Indian Rhino Translocation Success (<http://www.rhinos-irf.org/en/art/1417/>)
4. IUCN (1995) : Guidelines for Re-Introductions; prepared by the ICN/SSC Re-Introduction Specialist Group.
5. WWF-India (15/5/2008) : First Ever Rhino Translocation in Assam a Success ([www.wwfindia.org](http://www.wwfindia.org))
6. WWF-India (29/12/2010) : Translocation of wild rhinos carried out in Assam, India (<http://wwfindia.org/?5180/Translocation-of-wild-Rhinos-carried-out-in-Assam-India>)
7. Williams A.C. (2008) : Translocation Guidelines for Indian Rhinos (Draft), WWF AREAS (with inputs from Rajendra Gurung, Kanchan Thapa and Kamal Ghahre). WWF Technical Support Network Document.

---

### *Author details :*

1. *Chief Operation Officer, Translocation Core Committee (CCF- Wildlife, Assam); email – [dmsingh82@gmail.com](mailto:dmsingh82@gmail.com)*
2. *Deputy Chief Operation Officer, Translocation Core Committee (WWF- India); email – [amitsharma\\_ghy@sify.com](mailto:amitsharma_ghy@sify.com)*
3. *Member, Translocation Core Committee (Aaranyak); email - [bibhab@aaranyak.org](mailto:bibhab@aaranyak.org)*