Borneo Rhino Sanctuary (BRS) programme (restricted distribution)

Quarterly report : covering the period July - September 2012

Programme objective

To prevent the extinction of the Sumatran rhinoceros in Sabah by protecting wild rhinos and by bringing rhinos together in managed breeding facilities at Tabin Wildlife Reserve (TWR)

Main participating agencies

Sabah Wildlife Department (SWD), Borneo Rhino Alliance (BORA), WWF-Malaysia, Sabah Forestry Department (SFD), Leibniz Institute for Zoo and Wildlife Research (IZW), Zoo Leipzig, ITBC/Universiti Malaysia Sabah, WWF-Germany, Sime Darby Foundation (YSD).

Main financing agencies during this quarter

YSD, WWF-Germany, SWD, BORA

Programme description (following May 2009 Sabah State Cabinet decision)

- protection and monitoring of wild rhinos in TWR (BORA-SWD) and Danum Valley Conservation Area (WWF-Malaysia).
- establishing Borneo Rhinoceros Sanctuary (BRS) breeding facilities (a managed, fenced area) inside TWR.
- bringing isolated remnant rhinos from non-viable situations, into BRS.
- establishing a sustainable financing scheme to allow long-term operations of BRS.
- appointing a professional company to manage BRS and its rhinos

Activities and progress

Kulamba rhino trap Kulamba rhino trap The rhino trap on edge of Kulamba Wildife Reserve was monitored twice daily by a team camped about 3 km away, throughout the period. No animals were caught in the trap. Guard duty initially (starting when the trap was complete) involved personnel from BORA, SWD, Wildlife Rescue Unit and WWF-Malaysia. Management and coordination was difficult, and numbers of persons involved were too many. During this reporting period, BORA became fully responsible for guard duty, with four persons on duty at any one time. On 2 August, Mr Stephen Hogg of Wildtrack Photography set two cameras at the rhino trap, fitted with a device that will send mms images of any

animal that enters the trap. Unfortunately, even with minimising image size and using "high gain" antennae, the Celcom/Digi strength at the trap site is too weak to permit sending of mms's. A WWF-Malaysia team was tasked to seek fresh signs of rhino in the Kulamba area as a basis for adding more traps, but no signs were found. Old WWF-Malaysia reports from this region were also found to not provide adequate information to select additional trap sites. SWD placed 20 camera traps for two months within Kulamba Wildlife Reserve, but no rhino images were recorded.

Surveys for wild rhinos in Tabin Wildlife Reserve (TWR) Seven surveys were done during this reporting period in the northern and central parts of TWR, each of between 7 and 10 days, to seek signs of wild rhinos. Up to end of this reporting period, no rhino signs had been found. July and August remained relatively dry, so finding rhino footprints was difficult. Surveys were done in July in the area previously occupied by Puntung, as a check in case another rhino uses this area, but no signs were found.

Kuamut rhino One-week surveys were conducted in July (involving local people) and in August in upper Kuamut area, but no rhino signs were found. It was agreed to offer a reward to local people who find and report fresh rhino signs and who bring BRS programme staff to the site. Rampant illegal hunting in the upper Kuamut region by native hunters with vehicles, guns and dogs is an issue of significant concern in relation to rhinos.

Interim and supporting infrastructure Infrastructure improvements and additions done during this reporting period included an additional interim rhino paddock (almost complete), "Trek Force" house (almost complete) and painting of the Long House. Following requests from BORA, Sabah Public Works Department (PWD) in August kindly commenced periodic maintenance of the road to the RQF and rhino interim facilities; such maintenance work is essential, but PWD is not allocated funds for the BRS programme, because the site lies with a Forest Reserve and is not for a public purpose.

Puntung & Tam mating Based on data from zoos and other facilities since 1990s, it is known that healthy, fertile female Sumatran rhinos are receptive to mating only for a period of 1-2 days, at intervals of roughly 21-27 days. Dangerous fighting may occur between male and female rhinos if put together at times of "non-receptivity". Of the various possible methods potentially available to determine receptivity dates, the best available in Sabah is to monitor blood serum levels of the hormone progesterone; this rises and falls, with the lowest level normally indicating receptivity. Based on monitoring of Puntung's progesterone since January 2012, and the successful reduction of her endometrial cyst growth in June, 17 August was determined to be the most likely date for the first mating attempt. Six attempts to put Puntung and Tam together in the breeding yard were done (17-19 August). Tam showed increasing aggression over those days, and no copulation occurred. Puntung's drop in progesterone in September occurred sooner than anticipated, and the likely best date was missed for a second mating attempt. A decision was taken to monitor serum daily, rather than every other day, and to target October for the next mating attempt. There is a constraint, however, in that blood samples are analysed in Sandakan, and results not usually available same day.

Awareness (a) a media update on Puntung's status and the BRS programme (e.g http://thestar.com.my/news/story.asp?file=/2012/8/11/nation/11837690&sec=nation) was released in early August, (b) video filming of the BRS programme for Sime Darby internal corporate use was done at TWR, 19 July, (c) an article appeared on the WWF-Germany website based on a presentation and interview given on the BRS programme on 21 September (http://www.wwf.de/themen-projekte/bedrohte-tier-und-pflanzenarten/nashoerner/sumatra-nashorn-die-geschichte-von-puntung-und-tam/), (d) a scientific paper drafted by Dr Benoit Goossens with input from BRS programme participants entitled "Genetics and the last stand of the Sumatran rhino" was rejected for publication (because no new data were presented) by the journal PLoS Biology, and re-submitted to Oryx. The paper argues that the Sumatran rhino is so endangered, and that the Sumatran and Bornean forms are so alike, that mixing of gametes of the Sumatran and Sabah rhinos is supported. Formal publication is considered important as a basis to clear any residual concerns over this idea by governmental or other authorities.

IZW field research at TWR Mr Torsten Bohm of IZW, accompanied initially by Mr Rasmus Havemoller (Copenhagen) arrived in Sabah in June to initiate field studies of rhinos. Due to several issues, not least acquisition of a research permit, this work has had a slow start. However, Mr Bohm has made several preliminary initiatives during this quarter.

IUCN World Conservation Congress This four-yearly event, in 2012 held in Korea, 6-15 September, is considered by IUCN to be the world's largest and most important conservation event. The following clause was included in the Congress's statement on rhinoceros : "for the Sumatran rhinoceros, close management of rhinos in fenced, managed conditions will be necessary in order to explore all possible techniques that may boost birth rate above natural death rate, including super-ovulation, artificial insemination, in vitro fertilization and other advanced reproductive techniques."

WWF-Malaysia During this quarter, the head and deputy head of the WWF-Malaysia patrol and rhino survey personnel in Sabah ended their service with WWF-Malaysia, and a new Sabah-based Senior Manager - Species & Habitats (Dr K Yoganand) started work on 23 July. He plans to give special attention to rhinos.

BRS programme external links (a) Two BORA groups visited Indonesia, including the Sumatran Rhino Sanctuary at Way Kambas, (4-8 and 25-29 September, the latter with TWR Wildlife Officer), (b) BORA executive director visited IZW and WWF-Germany main offices (Berlin), 21 September, and provided updates on the BRS programme.

Other updates (a) Gelogob remained at TWR during this reporting period, pending renovation of her old enclosure in Lok Kawi Wildlife Park. (b) Initial site preparation for planting the Rhino Food Garden commenced in late September, (c) Era Wira were contracted to provide a feasibility study for hydro-power on Tabin river.

Meetings held SWD-BORA, 26 July, 6, 28 & 29 August; YSD-BORA, 23 July; WWF-Malaysia-BORA, 2 & 23 August, 25 & 30 September; BRS technical committee / Sabah rhino task force meetings meeting, 13 July, 15 & 30 August; SWD-SFD-BORA-WWF-Malaysia, 3 August; BORA Annual General and Board meetings, 9 August.

Problems to be addressed

(1) In July 2012, SEDIA (Sabah Economic Development and Investment Authority) confirmed that no further funds will be made available from Federal Government via existing channels for the BRS programme, due both to specific bureaucratic mishaps and a general policy decision on SEDIA goals during 2010. The issue of absence of BRS facilities three years after programme commencement, and uncertainty over financing for their construction, continue to be an issue of very significant concern. Even with the near completion during this quarter of one new interim paddock, there will then be no place to put additional rhinos after the Kulamba rhino(s) are caught. State Government has indicated that funds will be made available only over the years 2013-14 to build the BRS permanent facilities. This is too slow; lack of holding facilities will put a brake on capture of rhinos.

(2) Through the interest of Sabah Forestry Department (SFD), RM1 million was raised from forestry-related companies as an emergency fund to complete the BRS access road and initiate construction of the perimeter road of the BRS breeding facilities complex. However, due to government procedures, these funds had to be channelled to BORA via State Ministry of Finance. Due to Ministry procedures, choice of a contractor and disbursement of funds has to be done through a committee chaired by the Ministry. This procedure negates the original idea of having funds that can be channeled quickly to contractors with proven experience at building small roads inside forest on slopes.

(3) Both YSD and BORA have entered into written agreements with government of Sabah that are based on the assumption that government will build the permanent BRS breeding facilities. Both YSD and BORA have implemented their roles to the best of their ability. After three years' formal operations of the BRS programme (mid 2009-mid 2012), however, government has been unable to supply the necessary funds to build infrastructure on time.

(4) The access road to the BRS breeding facilities was seemingly completed during this reporting period; however, the poor quality of the culvert and exposure of uncovered soil embankments to rain remained issues of concern at end of this quarter.

(5) The unreliable piped water supply at Tabin continues to cause significant concern for humans and rhinos.

(6) Insufficient information available to allow determination of additional potential rhino trap sites at Kulamba.

Solutions

(1) Continue to hope that State government will provide funds adequate to build the BRS permanent facilities within a reasonable time frame; and simultaneously seek alternative, quicker financing sources.

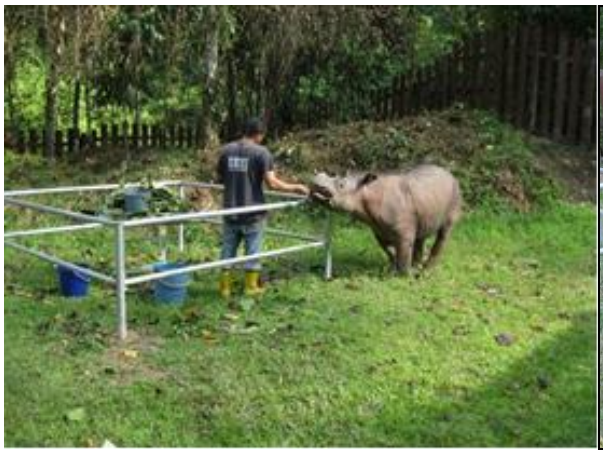
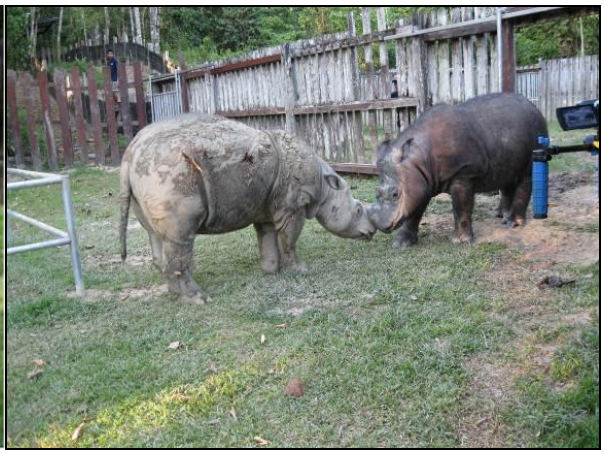
(2) The funds raised by SFD will be used for ad hoc improvement and maintenance related to road and rhino-related infrastructure, with small disbursements for each job.

(3) The problems associated with governments as a mechanism to prevent the extinction of endangered species was recognised decades ago and this was the primary reason for establishment of WWF in 1961. Parties involved in the BRS programme must think again, looking outwards to seek new ways to put the plight of the Sumatran rhino on the global table, and to seek the necessary funding support to revitalise the stagnant BRS breeding facilities element.

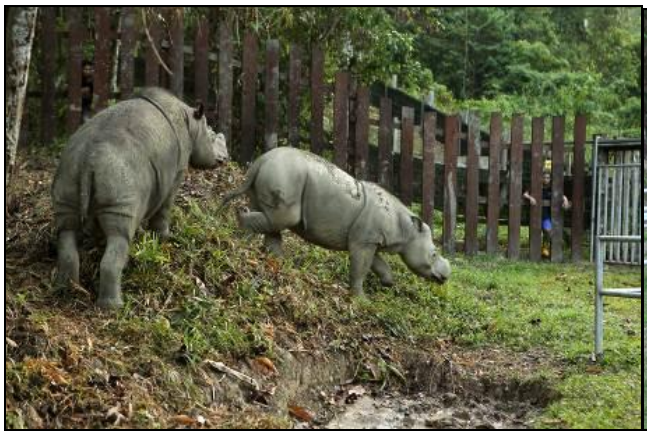
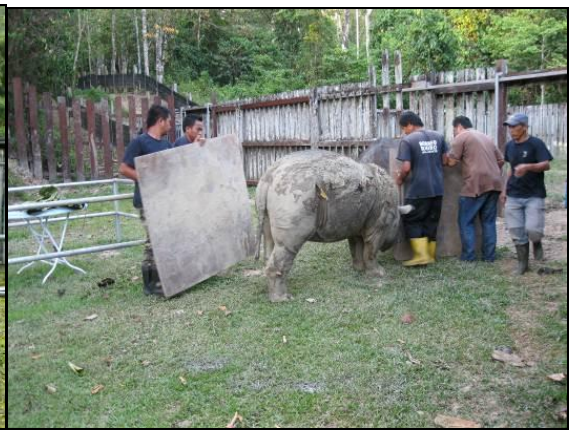
(4) Resolution of the BRS access road problems will follow normal governmental procedures. Once the necessary bureaucratic procedures are settled, funds raised by SFD can be used to undertake improvements.

(5) Await advice from Era Wira consultancy on potential for combined hydro power and water supply from Lipad river near to TWR HQ.
(6) Prioritise seeking of new rhino signs in Kulamba area.

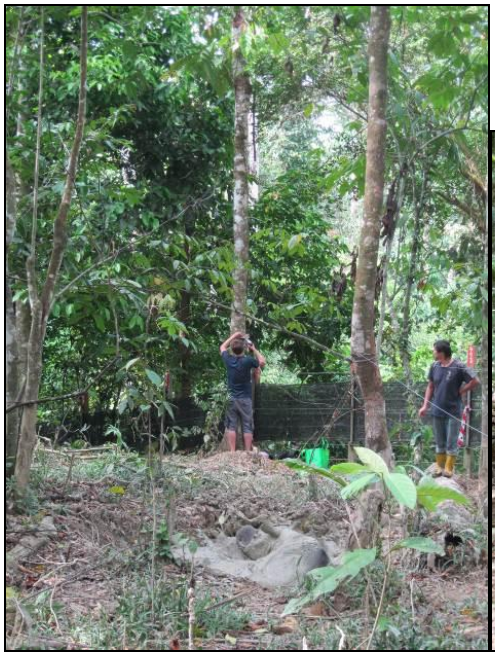
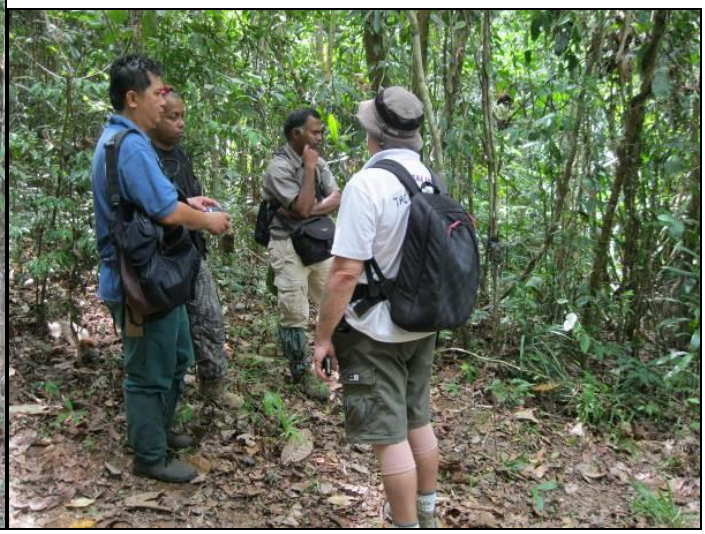
Plans for next quarter
(1) Continue with Puntung and Tam natural mating attempts. (2) Complete the additional interim rhino holding facility and address the need for yet more temporary facilities. (3) Locate at least one specific site for an additional rhino trap at Kulamba area. (4) Determine if any wild rhinos remain in Tabin Wildlife Reserve. (5) Decide the need for capture of rhino(s) from sites other than Kulamba. (6) Consider new ideas for bringing the plight of the Sumatran rhino to global attention, and for seeking necessary financing support to revitalise the stagnant BRS breeding facilities programme.

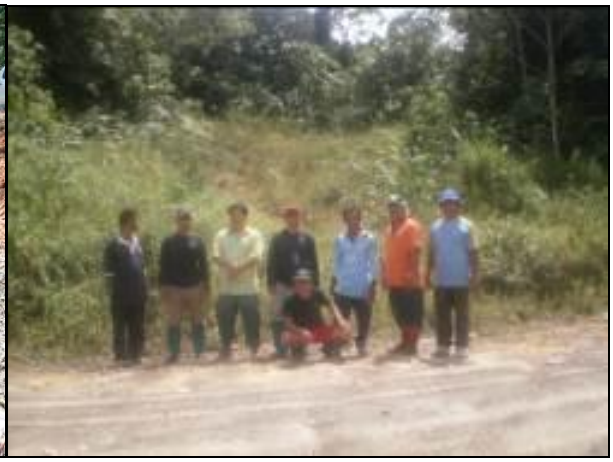
(left) Interim rhino facilities keeper Mr Wilson Kuntil feeds Puntung in the breeding yard; Puntung was trained to explore the yard for several weeks before the first mating attempt, to mimic the wild situation (male enters the females' home range for mating, not vice versa), (right) the first face-to-face, uninhibited meeting of Puntung and Tam (17 August)

(left) Tam chases Puntung (18 August), a normal part of Sumatran rhino "foreplay"; it was a relief to ascertain that Puntung can run on her three good legs, (right) if interaction becomes too aggressive, Tam and Puntung are separated by keepers using plywood shields

(left) Mr Tortsen Bohm (IZW) attaches a device inside Puntung's paddock, to obtain recordings of rhino calls, as a possible future aid to calling rhinos to night stalls, or even for attracting rhinos to traps, (right) (left to right) Mr Herman Stawin and Dr Sen Nathan (SWD), Dr K Yoganathan (WWF-Malaysia) and Mr Stephen Hogg (Wildtrack Photography) at the Kulamba trap site to install cameras, intended to capture and mms images to smart phones, of any animal that enters the trap.

(left) BRS access road, early August, showing bare soil embankments near culvert, (right) Tagason area in upper Kuamut region, where rhino footprints were seen by people from Kampung Kuamut in 2009 (photo : Rasaman Jaya)