



Borneo Rhino Sanctuary (BRS) programme (restricted distribution)

Quarterly report : covering the period April - June 2013

### **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

### **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), Sabah Foundation (YS).

### **Main financing agencies during this quarter**

YSD, WWF-Germany (also Wildlife Reserves Singapore, WWF-International, IUCN, IRF and others for Sumatran Rhino Crisis Summit)

### **Programme description** (following May 2009 and March 2013 Sabah State Cabinet decisions)

- protection and monitoring of wild rhinos in Tabin Wildlife Reserve, TWR (BORA-SWD) and Danum Valley Conservation Area (WWF-Malaysia).
- establishing Borneo Rhinoceros Sanctuary (BRS) breeding facilities inside TWR with additional facilities at Danum Valley.
- bringing isolated remnant rhinos from non-viable situations, into BRS facilities at TWR and Danum Valley.
- establishing a sustainable financing scheme to allow long-term operations of BRS.
- appointing a professional company to manage BRS and its rhinos
- develop rhino reproductive laboratory facilities in Sabah
- exchange Sumatran rhino gametes between Sabah and other countries

### **Targets for this quarter**

(1) Sumatran Rhino Crisis Summit (SRCS) held at Singapore Zoo, with the following objectives : a. To forge a global Sumatran rhino conservation plan (review and synthesis of existing plans, enhanced by the experiences of people who have been involved in successes and failures with endangered species; captive breeding will be seen in the context of a long-term re-introduction into the wild). b. To seek new impetus (via new potential financing sources, influence and partnerships) to support the goal of preventing the extinction of the Sumatran rhinoceros. c. To lift the conversation from

local, national and Sumatran rhino specialist levels to a broad, global platform. d. To seek ways to help those working on the ground secure enhanced governmental, political and financial support. e. To initiate a process to raise Euro 30 million for the prevention of the extinction of the Sumatran rhinoceros. (2) First artificial insemination attempt of Puntung. (3) Construction of rhino facility at Danum Valley underway. (4) Rhino trapping work underway in Danum Valley. (5) Initiation of a study to identify possible harmful substances in rhino food (natural plant toxins and residues from agro-chemicals).

### **Activities achieved during this quarter**

(1) Sumatran Rhino Crisis Summit (SRCS) was held as planned at Singapore Zoo, 31 March-4 April; follow-up with Indonesia was done through meetings (Yayasan Badak Indonesia Board and informal, 8 April), emails, and further meetings 23-27 June in Way Kambas, Jakarta and Bogor. As convener, and as agreed at the SRCS, IUCN took the lead during this quarter in drafting a 2-year Sumatran rhino emergency plan, based on the SRCS outcomes. (2) First artificial insemination of Puntung, using fresh sperm from Tam was attempted on 25 June, but fertilization was not achieved. (3) BRS Danum Valley rhino facility design was completed with a “design and build” consortium, bill of quantity was prepared, and the proposal submitted to Sabah Forestry Department (SFD; the site location lies within Ulu Segama Forest Reserve about 1.5 km from the Danum Valley boundary). (4) Location for base camp for building and monitoring the Danum rhino trap was chosen; approximate sites for trap(s) were located. (5) The study (by Institute for Tropical Biology and Conservation (ITBC), Universiti Malaysia Sabah (UMS)) to identify possible harmful substances in rhino food was initiated with samples of 20 food species.

### **Meetings held**

SRCS, 1-4 April; Yayasan Badak Indonesia (YABI) Board meeting, 8 April; BORA – Indonesia rhino institutions, 8 April, 22, 23, 24, 25, 26 and 27 June ; SWD-BORA, 17 April; Ulu Segama Malua management plan meeting, 10 May; ITBC-BORA, 13 May, 29 June; BRS task force, 7 June; BORA-WWF-Malaysia 17 May, 30 June; YSD-BORA, 19 April; BORA-IUCN SSC (Oxford) 24 April; Rhino May Day seminar (London) 1 May; BORA - YB Dr Edwin Bosi (former Sumatran rhino veterinarian and Sabah State Legislative Assembly member), 20 May; BORA - Mr Wong Tack, environmental “activist”.

### **Other updates**

(1) The Bukit Kretam rhino trap was re-opened in mid-April (following settlement of the “Suluk invasion” incident, purchase of a boat and moving of the BORA monitoring team out of Ladang Bukit Kretam plantation land to Seri Ganda village); however, despite repeated surveys in the Kretam-Kulamba area, no signs of rhino have been detected in this area since December 2011; accordingly, in June it was concluded that it is better to focus rhino trapping efforts on Danum Valley, and the Bukit Kretam trap was closed (and the materials removed) on 19 June. Notices of cash reward for information on any rhino signs have been posted in villages and plantations in the Kretam-Kulamba area.

(2) Commencing mid May 2013, the ITBC lead researcher who has been contracted to investigate possible toxins in rhino food, Dr Charles Vairappan, was appointed as acting director of ITBC; it has been agreed that ITBC and BORA maintain and ideally strengthen collaborative work.

(3) Work commenced on the perimeter road of the TWR BRS facilities.

(4) The newspaper reports by Mr Kan Yau Chong (see **Awareness** section below) quoted several people both from Sabah and elsewhere as suggesting that Tam be sent to Cincinnati Zoo as a mate for the fertile but lone female Suci.

(5) BORA representatives Dr Abdul Hamid Ahmad and Dr Zainal Z Zainuddin visited Sumatran Rhino Sanctuary in Indonesia, 16 May, coinciding with an electro-ejaculation (Andalas) and AI (Rosa) procedure.

(6) A visit was made (24 May) to 40 hectares of mature oil palm abandoned in October 2012 on the southern fringe of TWR. With adequate shade and abundant natural, fast-growing woody undergrowth, some suitable as rhino food, no chemical usage, and a stream flowing from TWR, this would be ideal habitat as a large paddock to house Sumatran rhino. Being 1 hour drive from the BRS interim facilities, the site is too far to be logistically practical. However, the visit demonstrated that abandoned or lightly-managed mature oil palm plantation, if fenced, could be a suitable habitat for Sumatran rhino, either in small individual paddocks or for one very large enclosure for several rhinos.

### **Awareness**

Following SRCS, veteran Sabah journalist Mr Kan Yau Chong produced a series of reports on the event, which were printed in the Sunday edition of the Sabah English language newspaper, on 7 and 14 April, 5, 12, 19 and 26 May, and 2, 9, 16 and 23 June 2013 (three examples reproduced below).

### **Issues to be addressed**

(1)SRCS provided a very important forum where a wide diversity of experience and opinions were shared. Not all the objectives were met (notably an agreed plan of specific actions, nor any new specific financing opportunities), but potentially the most significant outcome was a call by the governments of Indonesia and Malaysia to collaborate. For BRS programme and Sabah, the most serious issue is that no global consensus was reached on the need to bring further Sumatran rhinos into fenced, managed facilities as the main route towards production of embryos (and thereby boosting birth rate significantly above death rate). A significant minority of SRCS participants supported this view (most Malaysians, and some international specialists with experience of critically endangered species), while the other participants either favour obtaining more data on wild Sumatran populations before making any decisions, or favour protecting wild rhinos over further captive efforts, or favour concentrating Sumatran rhinos into an extensive wild habitat in Sumatra. The majority supported a coordinated programme of camera trapping effort and rhino faecal DNA work in order to obtain better information of numbers, sex ratio and breeding amongst the three remaining wild rhino populations in Sumatra. In any case, the draft SRCS emergency plan document needs to be reviewed, amended as necessary, and agreed by government Indonesia. Biodiversity Conservation Division of Ministry of Forestry Indonesia indicated during a visit from Sabah representatives in June that Government of Indonesia is reluctant to enter into a formal collaboration between Government of Indonesia and Government of Malaysia. It was suggested by Indonesia that a “materials transfer agreement” involving NGOs might be an option to allow rhino gametes to be exchanged, but it is not clear how this might be achieved (a Sabah request to Indonesia dating from 2011 for urine from a Sumatran Rhino Sanctuary female rhino in oestrus to be used as a possible stimulant for Tam remains pending).

(2) Puntung’s irregular oestrus cycling makes it difficult for the IZW vet team to mesh their visit to Tabin exactly when Puntung will be able to ovulate; in addition, the loss of all cryo-preserved sperm taken from Tanjung pre-2007 and Tam (2009-11) means that the only possibility to obtain sperm now is for Tam to undergo full anaesthetization and electro-ejaculation on the on the same day of predicted ovulation, so fresh sperm and oocyte can be available at the same time as Puntung is ready to ovulate. Even with an extended stay by the IZW team in Sabah and administration of human chorionic gonadotropin to accelerate ovulation, the visit to Tabin in June turned out to have been earlier than optimum.

- (3) Several issues combined to slow progress on starting work on the Danum Valley rhino facility. One key outstanding issue is that RM1 million is available from SFD to build the facility, but actual total cost (including night stalls, breeding yard, forest paddocks, keeper accommodation and water and electricity supply) will significantly exceed that amount.
- (4) There are rational reasons for the idea of loaning Tam as a mate for Suci in Cincinnati Zoo, but public perceptions need to be addressed, and the pros and cons brought to a wider section of Sabah society. There are also other options, including waiting until a fertile female is caught from Danum Valley; loaning both Tam and Puntung to Leipzig Zoo, where advanced reproductive technologies could be applied more readily by the IZW team; or loan Tam to the Sumatran Rhino Sanctuary in Indonesia.
- (5) Due to sloping clay soils and prevailing high rainfall at TWR, the condition of Puntung's forest paddock now make it almost impossible for her to walk up and down the slope between her paddock and night stall. Rectification work is needed, so she can walk more easily. In addition, further improvements to Gelogob's enclosure in Lok Kawi Wildlife Park are needed, pending removal of the last (pregnant ) sambar deer and availability of funding.

### **Solutions**

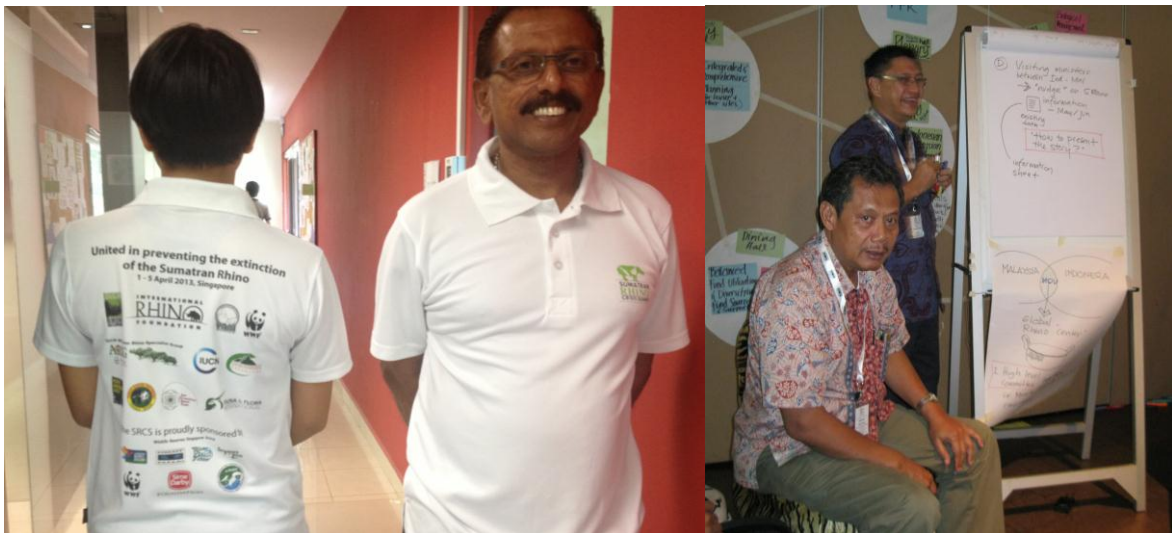
- (1) Pending further news from Government of Indonesia, the Indonesia-Malaysia collaboration can be potentially pursued by collaborative work on the ground involving the key Indonesia and Malaysia/Sabah NGOs.
- (2) The IZW team have confirmed their continuing interest in the Sumatran rhino, and willingness to seek funds for regular working visits to Sabah; letters of support can be provided for funding applications; the general aim is for further artificial insemination (AI) attempts at 2 or 3 monthly intervals; availability of a better resolution ultrasound device at TWR for frequent monitoring of Puntung's follicle growth would be helpful in predicting best dates for AI.
- (3) SFD, the "design and build" consultant consortium, BORA, YSD and Danum Valley Management Committee to liaise to ensure that sufficient funds will be available to complete the Danum Valley rhino facility. Additional fund-raising effort is needed.
- (4) Briefings and/or discussion forums with specific individuals and institutions are needed to garner public support for the idea of moving rhinos between nations, particularly the idea of Tam to Cincinnati Zoo, or both Tam and Puntung to Leipzig Zoo.
- (5) Build stone walkway from Puntung's night stall into her paddock; remove last sambar deer from Gelogob's enclosure and add shade.

### **Plans for next quarter**

- (1) Pursue collaboration with Indonesia, targeting agreement on the SRCS emergency plan and assistance with provision of camera traps to initiate obtaining better data on wild rhinos in Way Kambas National Park. (2) Conduct second artificial insemination attempt on Puntung. (3) Construction of BRS Danum Valley rhino facility initiated; secure additional funding for completion. (4) Female rhino captured in Danum Valley. (5) Continue construction of the permanent BRS breeding facilities at TWR. (6) Present argumentation and secure wider public support for loan of rhinos to institutions outside Sabah.



(left) Sumatran Rhino Crisis Summit (SRCS) logo, designed by Sime Darby with the SRCS planning group, (right) SRCS discussion, hosted by Wildlife Reserves Singapore in Singapore Zoo, 2 April.



(left) SRCS T-shirt, produced by Wildlife Reserves Singapore, (right) Drs. Widodo Ramono, executive director of Indonesian Rhino Foundation with facilitator Victor Chandrawira at SRCS.



Post SRCS visit to Indonesia, late June, (left) Andatu's first birthday party at Way Kambas National Park, 23 June, witnessed by BORA chairman and executive director, with Director of Biodiversity Conservation, Mr Bambang Novianto Wawandono in centre, (right), the size of Andatu, born at Sumatran Rhino Sanctuary, at only one year old is astonishing (mother Ratu to left of Andatu, below); although only about 65% of her body weight, at a glance he appears not much smaller.



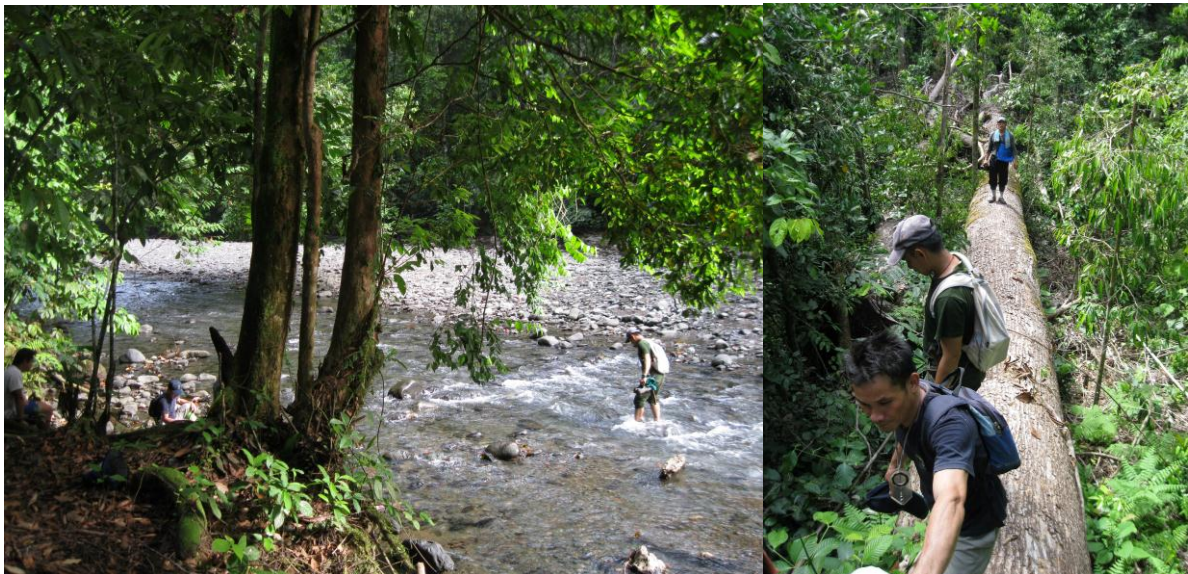








(Left) Puntung's forest paddock in TWR – due to clay soils and prevailing high rainfall at Tabin, the condition of the soil sometimes makes it almost impossible for her to walk up and down the slope, (right) wallow used recently by the targeted wild female rhino in Danum Valley.



Preparations for the rhino trap in Danum Valley, (left) crossing the Nicola River (Sungai Bersih on geological maps), between Borneo Rainforest Lodge and the proposed trap area; access to the trap site will be cut off whenever this river floods, (right) Danum Valley suffers from frequent and significant tree falls, presumably due to periodic strong winds; this is a recent tree fall zone on the route to the proposed trap site.