

MINUTES OF THE 9TH MEETING OF THE TECHNICAL SUB-COMMITTEE  
OF SABAH RHINO AND WILDLIFE CONSERVATION COMMITTEE HELD ON  
TUESDAY, 24TH NOVEMBER, 1987 AT 10.00 A.M. IN THE SABAH  
RHINO AND WILDLIFE CONSERVATION COMMITTEE'S SECRETARIAT

Present:

Encik Lamri Ali	- Chairman
Mrs. Sue Jayasuriya	- Secretary
Dr. Ghazally Ismail	
Dr. Murtedza Mohamad	
Encik Rob Stuebing	
Encik Joseph Gasis	
Dr. Shukor Md. Nor	

1. Agenda

The meeting amended the agenda as follows:-

- a) The date and time of the meeting.
- b) Item 3(c) to read: "Report on collaborative research contacts in the United States.
- c) Item 3(b) to be included in Item (4).
- d) Item 6: to be deleted and replaced by Item 7.

2. Confirmation of Minutes

The 8th meeting of the Technical Sub-Committee of Sabah Rhino and Wildlife Conservation Committee was confirmed, proposed by Dr. Ghazally, seconded by Dr. Shukor, subject to the following corrections:-

- a) 4(b) ii) : "stockage" to read "stockade".
- b) 4(l) : the words "stockage" to read "stockade".
- c) 4(o) (a) : "becuase" to read "because".
- d) 10(f) penultimate sentence : the word "report" to be replaced with the word "brief".

3. Matters Arising

a) Wildlife Bills

The Executive Secretary reported that Sabah Rhino and Wildlife Conservation Committee at its 8th meeting had resolved that as the amendment to the Fauna Conservation Ordinance would take time to process, the part pertaining to the Penalty Section and Onus of Proof with regards to hunting of

scheduled species be amended in the meantime. The Secretary was directed to take the necessary action.

b) Station in Lahad Datu

The Executive Secretary informed the meeting that due to bad road condition, because of inclement weather, the Contractor had not been able to commence work on the following, even though he had purchased all the materials:-

- i) Wallow, atap roof over the wallow and drainage for the wallow.
- ii) 2 night-stalls as per Jabatan Kerja Raya drawing No. B13/185/7.
- iii) Store shed, Jabatan Kerja Raya drawing No. B13/185/7.
- iv) Addition of 3,600 gallons of G.I. water tank with two units trestle platform.

Estimated time of completion of work is three weeks.

The necessary allocation of \$38,201.70 has already been sent to Jabatan Kerja Raya. The meeting directed Dr. Shukor Md. Nor to organise planting of trees in the stockade.

c) Employment of Project Co-ordinator

The Executive Secretary informed the meeting that Sabah Rhino and Wildlife Conservation Committee at its 8th meeting, appointed Encik Mahedi Andau as the Project Co-ordinator for Sabah Rhino and Wildlife Conservation Committee until further notice.

d) Allocation for Field Operation

An amount of \$50,000.00 has been sub-allocated by the Ministry of Tourism and Environmental Development to the Wildlife Section of the Forestry Department for field operation of Sabah Rhino and Wildlife Conservation Committee.

e) Purchase of Third Vehicle

A purchase order for one unit Isuzu KBD 46 ( 4x4 pickup) 1951 cc diesel engine had been issued to Perkina Industries Sdn. Bhd. The vehicle will be fitted with the following:-

Kangaroo bar, canvas and rack to be constructed on the back, one set of fog lights, electrical winch c/w remote control, two wooden benches constructed the length of the sides of the pickup (can be folded up), three inches thick built-in cushions on the wooden benches. Delivery of the vehicle is expected to be in the second week of December, 1987.

f) Married Quarters

The Executive Secretary informed the meeting that Sabah Rhino and Wildlife Conservation Committee at its 8th meeting resolved that as the budget for married quarters for 1987 is only \$50,000.00 only two family quarters should be built.

Two sets of drawing of standard Div. 4 quarters have been submitted to Sabah Rhino and Wildlife Conservation Committee by Jabatan Kerja Raya. The meeting directed the Executive Secretary to look into the possibility of better design for the family quarters in Tabin.

The meeting also decided that married quarters for Div. 1 officers would be provided for in the 1989 budget. For the time being Div. 1 officers will live in the Div. 4 houses to be built but with better furniture, etc.

g) Weighing Scale

A Tru-Test AG 350 electronic weighing scale completed with one unit AG 350 electronic indicator and one pair load bar (800 kg capacity) costing \$5,580.00 has been purchased from Lazuli Sdn. Bhd., Selangor.

The platform for the weighing scale has been constructed in Sandakan.

h) Agreement between Sabah Rhino and Wildlife Conservation Committee and Sabah Museum

A letter was received from the Director of Sabah Museum which stated as follows:-

"I refer to your letter of the 7th September and the enclosed draft agreement.

It is not a Government Policy to insure Government owned property, and as the said dead rhinoceros is a Government property it therefore cannot be insured.

As there was no earlier correspondence either verbally or written with regard to the ownership of the said rhinoceros and the fact that all the work of skinning, preserving, cleaning and mounting of the said rhinoceros specimens has undertaken by the Museum, we feel that the said mounted rhinoceros should be deposited with the Museum. The specimen has already been registered as a Museum specimen. For your reference the mounted rhino specimen number is NH2651, the skeleton NH2652 and the horn NH2653. The Museum Collection Committee has already endorsed these specimens as Museum specimens under the control of Natural History Section.

In view of the above we return herewith the draft agreement for your retention".

The meeting proposed to the Main Committee to reclaim the ownership of this property. Ownership of the skin, bones, horn of the "Linbar" rhino belongs to SRWCC in view of the following:-

- a) That a special licence is granted to Sabah Rhino and Wildlife Conservation Committee to capture rhinos for conservation, research, breeding and development purposes.

- b) The overall function of Sabah Rhino and Wildlife Conservation Committee includes research and public education. These functions will require accessibility of specimens of rhino.
- c) The Sabah Museum has no authority to keep rhino parts caught in Sabah, as stipulated in Part IV of the Fauna Conservation Ordinance 1963.
- i) Purchase of Recreational and Sports Equipment  
The Research Officer, Dr. Shukor Md. Nqr was directed to purchase the following recreational and sports equipment:-
  - 1. Sepak takraw (balls and net)
  - 2. Carrom (table and tablets)
  - 3. Chest set
- j) Proposed Modification of Staff Quarters to Provide VIP Rooms and Vet. Office and Drug Storage
  - a) The Executive Secretary informed the meeting that Sabah Rhino and Wildlife Conservation Committee at its 8th meeting approved for one room of the staff quarters at Tabin Station be turned into a VIP room.
  - b) The store room be modified to become the Vet. office, laboratory and storage for drugs.

Jabatan Kerja Raya have prepared drawings on the above proposed renovation for calling of quotation.
- k) Press Release  
The press release prepared by the Technical Sub-Committee was submitted to the Chairman of Sabah Rhino and Wildlife Conservation Committee who on-forwarded it to the Chief Minister. The Chief Minister's office released it on 15th October, 1987.

1) Proposed Future Research Programme

Sabah Rhino and Wildlife Conservation Committee at its 8th meeting approved that three members of the Technical Sub-Committee who were invited by American Institutions and Zoos, take advantage of their visits to initiate contact leading to establishment of collaborative research programme.

m) International Stud-Book

On Encik Mohamad Khan's advice, Tenegang will be registered in the International Stud-Book.

n) Proposal to Establish Captive Breeding Herd of Banteng (VOS Javanicus Lowi) in Malaysia

Sabah Rhino and Wildlife Conservation Committee at its 8th meeting agreed with that the Technical Sub-Committee's resolution that Sabah Rhino and Wildlife Conservation Committee is not yet in a position to be actively involved in other projects. However the Chairman, YB Datuk Aariah Tengku Ahmad requested that Sabah Rhino and Wildlife Conservation Committee gives consideration in future towards conservation of other endangered species.

o) Information on Sabah Rhino and Wildlife Conservation Committee

The Sabah Rhino and Wildlife Conservation Committee at its 8th meeting agreed that the Technical Sub-Committee should advise the Main Committee on the technical aspect of the project. However policy matters would be the responsibility of the Main Committee.

It was also resolved that approval from the Main Committee is required for non-technical information to be released to anyone.

p) Tenegang - Public Viewing

Sabah Rhino and Wildlife Conservation Committee at its 8th meeting resolved that YAB Datuk Joseph Pairin Kitingan be invited to view Tenegang.

Formal invitation would also be extended to reporters and members of Sabah Rhino and Wildlife Conservation Committee. The meeting also agreed to allow a period of one month from the time of the Chief Minister's visit for public viewing of Tenegang. However educational trips by school children will be allowed.

3. Reports

a) Project Co-ordinator's Reports

There was no report as the Project Co-ordinator was not present.

b) Reports on Collaborative Research Contact in the United States

The report concerning a visit on behalf of Sabah Rhino and Wildlife Conservation Committee to initiate collaborative contact in the United States was appended.

The meeting resolved to adopt the report.

4. Trapping Operations and Surveys

The Research Officer, Dr. Shukor Md. Nor reported as follows:-

A survey was conducted in early November in a forest reserve (Segaliud/Lokan) and an area next to it in Kinabatangan district. Fresh tracks, wallow and faeces of rhinos were detected in these areas. On investigation, it was believed that a private company Kedau Sdn. Bhd. has applied for 14,000 acres of this area.

The Executive Secretary was directed to seek authority to enter into this area for capture operations.

Dr. Shukor Md. Nor also reported that in the last two months, logging operations in Sukau has ceased

and there were also no fresh tracks of rhinos. It is believed that as the animal has now got a bigger area to roam in, that the span of time will be much longer for the animal to complete its routing cycle.

The meeting agreed with Dr. Shukor Md. Nor that traps will remain open and checked on a daily basis, but half of the team will be moved to other areas for survey or capture operations.

5. Transfer of Dr. Shukor Md. Nor

The meeting directed the Executive Secretary to discuss with the Ministry of Tourism and Environmental Development, the matter of Dr. Shukor Md. Nor's employment base.

6. Any Other Business

1. The meeting once again resolved that the spelling of "TENAGANG" is to be "TENEGANG" which is the correct spelling.
2. Resignation of Driver Encik Wakiyoh b. Radjio  
The meeting accepted with regret the resignation of Encik Wakiyoh b. Radjio to be effective 30th November, 1987. The Executive Secretary was directed to select a replacement.
3. Rhinos Specialists Meeting  
During the visit of three members of the Technical Sub-Committee to Institutions and Zoos in the United States, they were embarrassed of their unawareness of rhinos specialists meeting held in Kuala Lumpur in early November, 1987. The meeting regretted that Sabah Rhino and Wildlife Conservation Committee was not informed of this meeting.

The meeting adjourned for lunch at 2.30 p.m.



M E M O R A N D U M

TO: ALL MEMBERS OF TECHNICAL  
SUB-COMMITTEE OF SRWCC

FROM: SECRETARY, TSC

DATE: 21ST SEPTEMBER, 1987

REF: SRWCC/T/1

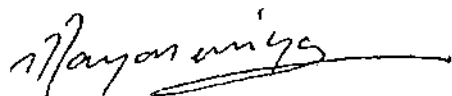
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Please note that a typographical error has been made on the Minutes of Meeting held in Sepilok. The meeting was held on 17th July, 1987 and not on 15th July, 1987. Subsequent error was made on Minutes of the 8th Meeting which referred the Sepilok Meeting as held on 15th July.

Please correct copies of both Minutes accordingly as follows:

1. Minutes of a Meeting held on 17th July, 1987 in Sepilok at 12.10 p.m.
2. Minutes of 8th Meeting of Technical Sub-Committee held on 2nd September, 1987 item 3 - Minutes of Special Meeting held in Sepilok on 17th July, 1987, (2nd line and 3rd line.)

" BERKHIDMAT UNTUK NEGARA DENGAN BERSIH, CEKAP DAN AMANAH "



( PUAN S.J. JAYASURIYA )

MINUTES OF 8TH MEETING OF THE TECHNICAL SUB-COMMITTEE  
OF SRWCC HELD ON WEDNESDAY 2ND SEPTEMBER, 1987 AT 9.00 AM  
IN THE SRWCC SECRETARIAT

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Present: Encik Lamri Ali                      Chairman  
          Mrs. S.J. Jayasuriya                Secretary  
          Dr. Ghazally Ismail  
          Encik Mahedi Andau  
          Encik Victor Chong  
          Encik Rob Stuebing  
          Dr. Shukor Md. Nor

1. Confirmation of Minutes of 7th Meeting held on  
4th May, 1987

The minutes of 7th meeting of the Technical Sub-Committee of SRWCC was confirmed, proposed by Encik Mahedi Andau seconded by Encik Rob Stuebing.

2. Confirmation of Minutes of Special Meeting held on  
15th May, 1987

The minutes of the Special Meeting held on 15th May, 1987 was confirmed, proposed by Encik Rob Stuebing seconded by Encik Mahedi Andau.

3. Confirmation of Minutes of Special Meeting held on  
15th July, 1987 in Sepilok

The minutes of the Special Meeting held on 15th July, 1987 in Sepilok was confirmed, proposed by Encik Mahedi Andau seconded by Dr. Shukor Md. Nor.

4. Matters Arising

a) Wildlife Bills

The Secretary informed the meeting that a letter had been written to the Attorney Chambers Office requesting that an amendment to the Penalty Section be carried out in Part.

The meeting also agreed that the section containing onus of proof with regard to hunting of scheduled species is also important and that this amendment should also be done as quickly as possible. In view of the proposed amendment to the Fauna Conservation (amendment) Ordinance 1987 is facing delay due to its total departure from the current ordinance, the meeting requested the Executive Secretary to discuss the matter with the Peguam

Negeri Sabah. The Committee proposed that the Fauna Conservation (amendment) Ordinance be repealed and the new proposed amendment be enacted.

b) Station in Lahad Datu

The following works have been completed.

- i) Accommodation
- ii) Stockage
- iii) Water Supplies: 1,600 gallons water tank;  
water pump (2½ hp - 7.5 KVA,  
2,900 RPM, 120 ft. head)
- iv) Generator: 12.5 KVA

The following works have not started.

The Executive Secretary to request JKR to call for quotation for the following works:

- i) Wallow, atap roof over the wallow and drainage for the wallow.
- ii) 2 night stalls as per JKR drawing no. B13/185/7.
- iii) Store shed also as per drawing no. B13/185/7.

c) Employment of Project Co-ordinator

At the meeting of JKM held on 1st July, 1987 it was decided that the Project Co-ordinator post be not filled for the time being. The Technical Sub-Committee resolved that it cannot afford any more time, personnel and money. The objective of SRWCC is not only to capture but also conservation, breeding and research. The meeting therefore wish to fill the post of the Project Co-ordinator urgently and requested the Executive Secretary to refer the matter to the Main Committee.

d) Allocation for Field Operation

The meeting resolved that an allocation of \$50,000.00 for Field Operation be sent to Sepilok. Dr. Shukor Md. Nor to be given authority to maintain the allocation. The Executive Secretary to refer the matter to Kementerian Pelancungan dan Pembangunan Alam Sekitar.

e) Purchase of 3rd Vehicle

The meeting requested the Executive Secretary to pursue the matter of purchasing the 3rd vehicle urgently.

f) Married Quarters

The Executive Secretary informed the meeting that SRWCC's request for \$100,000.00 for married quarters in the 1988 budget was cut down to \$50,000.00. The meeting requested Encik Victor Chong to prepare drawings of 5 units of 2 bedroom houses and submit them to the next meeting.

g) Weighing Scale

Three quotations were submitted to the Ministry of Tourism and Environmental Development. The cheapest quotation was from Lazuli Sdn. Bhd., Petaling Jaya for the Tru-Test electronic agricultural scale. As the Executive Secretary and the Permanent Secretary of the Ministry of Tourism and Environmental Development will be in Semenanjung towards the end of the month, they will meet with the Supplier to arrange purchase of the weighing scale.

h) Agreement between SRWCC and Sabah Museum

The proposed draft agreement was adopted with the following amendments;

- i) Item 8 to read: "This agreement shall expire on 1st January, 1991 unless renewed by the parties concerned".
- ii) An item on insurance against loss, theft, damage, etc. in the amount of \$100,000.00 should be purchased by the Museum.

The Executive Secretary will submit the proposed agreement to the Sabah Museum for their perusal and study and comments before signing of the agreement.

i) 1988 Budget

The Executive Secretary informed the meeting that the approved budget for 1988 is \$880,600.00. SRWCC's request was \$1,025,292.00. The cut from SRWCC's request was largely in the development & infrastructure head. SRWCC's request of \$250,000.00 for enclosure and facilities for 10 animals was cut to \$200,000.00; staff family quarters was cut to \$50,000.00 from \$100,000.00.

j) Third Team Leader

In view of rejection by JKM to establish a 3rd team, the meeting decided to proceed with survey work by borrowing a Team Leader from the Lahad

Datu Branch of the Forestry Department.  
Dr. Shukor will organise the survey work.

k) Visits to Base Camp

Encik Rob Stuebing and Encik Joseph Gasis visited the base camp in Sukau on 25th - 27th June, 1987. The meeting adopted the report submitted by Encik Joseph Gasis dated 19th June, 1987 and agreed to the following:

- i) Purchase of recreational and sports equipment:  
sepak takraw (balls and net)  
carrom (table and tablets)  
chess set

The meeting agreed not to provide the following:

- i) Refrigerator
- ii) Accommodation in Lahad Datu
- iii) Fire-arm
- iv) Ping Pong set
- v) Fishing rod and set

l) Sepilok Stockage

Modification to the Sepilok stockage have been completed. This include night stalls, wallow, double panelling of the stockage and security fence around the stockage.

m) Television for Base Camp

According to Government Policy, employees receiving out-station allowances will not be entitled to provision of television set.

n) Matters Arising of Minutes of Special Meeting held on 15th May, 1987

Encik Rob Stuebing reported that it would not be possible to have a 60ft. sq. clearing at the capture area for the helicopter to air-lift the animal and crate. The meeting agreed that when it is impossible to transport the animal out from the capture area due to impassability of transport because of condition of road, that a temporary stockade will be built on site. The Executive Secretary informed the meeting that Brig. Gen. Aboo Samah bin Abu Bakar had assured YB Puan Ariaah that the army in Lahad Datu, Tawau or Sandakan will provide land transport and personnel to move the animal from the capture area when required.

- o) Matters Arising of Minutes of Meeting held on 15th July, 1987
- a) Dr. Shukor reported that there was no need now to provide fly netting for the night stall in Sepilok. This is because the team is keeping the place clean and therefore the Tabanus Flies are not attracted to the area.
  - b) Encik Rob Stuebing will submit to SRWCC all photographs taken on the capture of Tanegang. The meeting granted permission to Encik Rob Stuebing to show slides of Tanegang at his talk to schools.
  - c) The Research Officer and Team Leader in Sepilok will prepare monthly report instead of on a weekly basis.
  - d) Dr. Zainal Zahari Zainuddin returned to Kuala Lumpur on 22nd July, 1987. The meeting recorded SRWCC's heart-felt thanks and gratitude to Dr. Zainal's sincere dedication and contribution to the operation.
  - e) YB Chairman Puan Aariah  
The meeting recorded SRWCC's greatfulness and thanks to YB Puan Aariah for her assistance, especially in getting the Kuala Lumpur personnel to Sabah, visiting Sepilok and seeing to the welfare of the staff. YB's contribution played a major role in the success of the operation.

5. Reports

The meeting adopted the following reports:

- a) Operation report for the month of April, 1987
- b) Team Leader's report dated 28th May, 1987
- c) Team Leader's (Jimli Perijin) report on capture of Tanegang.
- d) Dr. Edwin Bosi's report on "observation, examination and treatment of capture Sumatran Rhino" dated 21st July, 1987.
- e) Report by Dr. Shukor Md. Nor
- f) Daily report by Team Leader for the month of July, 1987.

6. Proposed Modification of Staff Quarters to Provide VIP Room and Vet's Office and Drugs Storage

The meeting agreed as follows:

- a) The Executive Secretary refer the matter to the Main Committee of provision for VIP room at the Tabin Station staff quarters.
- b) The store-room be modified to become the Vet's Office, Laboratory and Storage for drugs. JKR is requested to prepare drawings for the modification and to call for quotation. The meeting also agreed that a lockable refrigerator be purchased for keeping drugs.

7. Justification for Retaining Tanegang at Sepilok - by Dr. Zainal Zahari Zainuddin

The meeting noted Dr. Zainal's recommendation

8. Press Release

The meeting agreed that the next Press Release contain future programme, international development, research and future structure of SRWCC. Encik Rob Stuebing and Dr. Shukor to draft the text.

9. Proposed Future Research Programme

The meeting agreed that Encik Rob Stuebing, Dr. Ghazally and Encik Lamri Ali who will be visiting the United States at the end of October, 1987 talk to the relevant people in the United States regarding future research programme.

10. Any Other Business

a) Linbar Rhino

The Executive Secretary received 3 letters from the United States enquiring information on the death of the Linbar Rhino. The Executive Secretary to prepare a standard format to be sent to the enquirers.

b) Addendum to Report on Linbar Rhino

The meeting directed Encik Rob Stuebing to prepare an addendum to the report on its latest finding on the Linbar Rhino.

c) Congratulatory Letter from Encik Mohd. Tajuddin Abdullah

The meeting recorded its thanks to Encik Mohd. Tajuddin Abdullah for his congratulation.

- d) Duties and Responsibilities of Field Co-ordinator, Capture Team Leader, Survey and Monitoring Leader and Alternate Group Leader

Encik Mohd. Tajuddin prepared the duties and responsibilities of the above. The Executive Secretary to include the duties and responsibilities as suggested by Encik Mohd. Tajuddin in the SRWCC jobs specification of the respective officers.

- e) International Studbook

A letter was received from Mr. Francesco Nardelli who is an International Studbook Keeper of the Sumatran Rhino. He requested to register Tanegang and had sent a copy of the Studcard for our completion. The meeting directed Dr. Shukor Md. Nor to discuss the matter with Encik Mohd. Khan. Action will be carried out according to Encik Mohd. Khan's advice.

- f) Proposed Malaysian Aviculture Group

The Executive Secretary reported that SRWCC was invited to attend a meeting at the proposed Malaysian Aviculture on 26th July, 1987. The Executive Secretary did not attend the meeting. On the advice of YB Puan Aariah she requested Encik Mohd. Khan to report to SRWCC on the proceeding of the meetings. Encik Mohd. Khan had willingly agreed to do so.

- g) Proposal to Establish Captive Breeding Herds of Banteng (BOS Javanicus Lowi) in Malaysia

A letter was received from Zoo Negara Malaysia on this proposal. The meeting resolved that SRWCC is not yet in a position to be actively involved in other projects. It is yet to fully establish its own project and meeting its objectives. The Executive Secretary is to convey the opinion of the meeting to the Main Committee.

- h) The meeting resolved that it be SRWCC's policy that all information (technical or non-technical) should be approved by the Technical Sub-Committee before it could be given out to any person or organisation.

- i) Tanegang - Public Viewing

The meeting agreed that public viewing of Tanegang should be allowed in order to make aware to the public of the progress of SRWCC. However, the Executive Secretary would first seek clearance on the matter from YB Chairman Puan Aariah.

- j) The Executive Secretary informed the meeting that Encik Shahrudin Othman of Wildlife and National



Parks Semenanjung has returned to Kuala Lumpur on 19th August, 1987 after being in Sabah for a period of four months. The meeting recorded SRWCC's thanks and appreciation to Encik Shahrudin Othman for his help, dedication and efforts towards the project.

The meeting adjourned at 12.45 pm.

M E M O R A N D U M

TO: ALL TSC MEMBERS

FROM: EXECUTIVE SECRETARY

REF: SRWCC/LY/2

DATE: 23 JUNE 1987

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Dr. Julian Caldecott of the National Parks and Wildlife Office Sarawak Forest Department, Kuching visited the SRWCC Secretariat on Monday, 22 June 1987.

The Executive Secretary briefed him on the operations of SRWCC. In return Dr. Caldecott extended to us a copy of their project with regards to protection of the Sumatran rhinoceros in Sarawak. This is attached herewith for your information.

Sarawak is not capturing the rhinos but concentrating on protection through surveillance and involving the local communities. Dr. Caldecott has offered to provide us with reports of their success in this method should we require it. He has also expressed his willingness to assist us in whatever way he can.

The attached is sent to you for your interest and attention.

(S.J. JAYASURIYA)

## MEASURES TO PROTECT SARAWAK'S RHINOCEROS

POPULATION: JANUARY TO JUNE 1987

Dr Julian Calderott  
National Parks and Wildlife Office  
Sarawak Forest Department, Kuching

089 - Td 413163

## 1. INTRODUCTION

In August 1986, a small population of the highly endangered Sumatran rhinoceros (*Dicerorhinus sumatrensis*) was confirmed to survive in and around the headwaters of the Limbang river, near Gunung Batu Lawi and Gunung Murud. This species was previously thought to be extinct in Sarawak, and its rediscovery was greeted with enthusiasm in the state. This was reflected partly in local media coverage, but more importantly in a rule made under the Wildlife Protection Ordinance by the State Legislative Assembly, increasing the penalty for rhino poaching to a \$20,000 fine with two years in gaol.

These animals are extremely rare outside Sarawak, and they are threatened by poaching wherever they occur. Thus, it is recognized that within a few years Sarawak may become their last stronghold. The Forest Department has therefore assigned a high priority to the preservation of this population, and has already taken various steps to defend the rhinos from hunters.

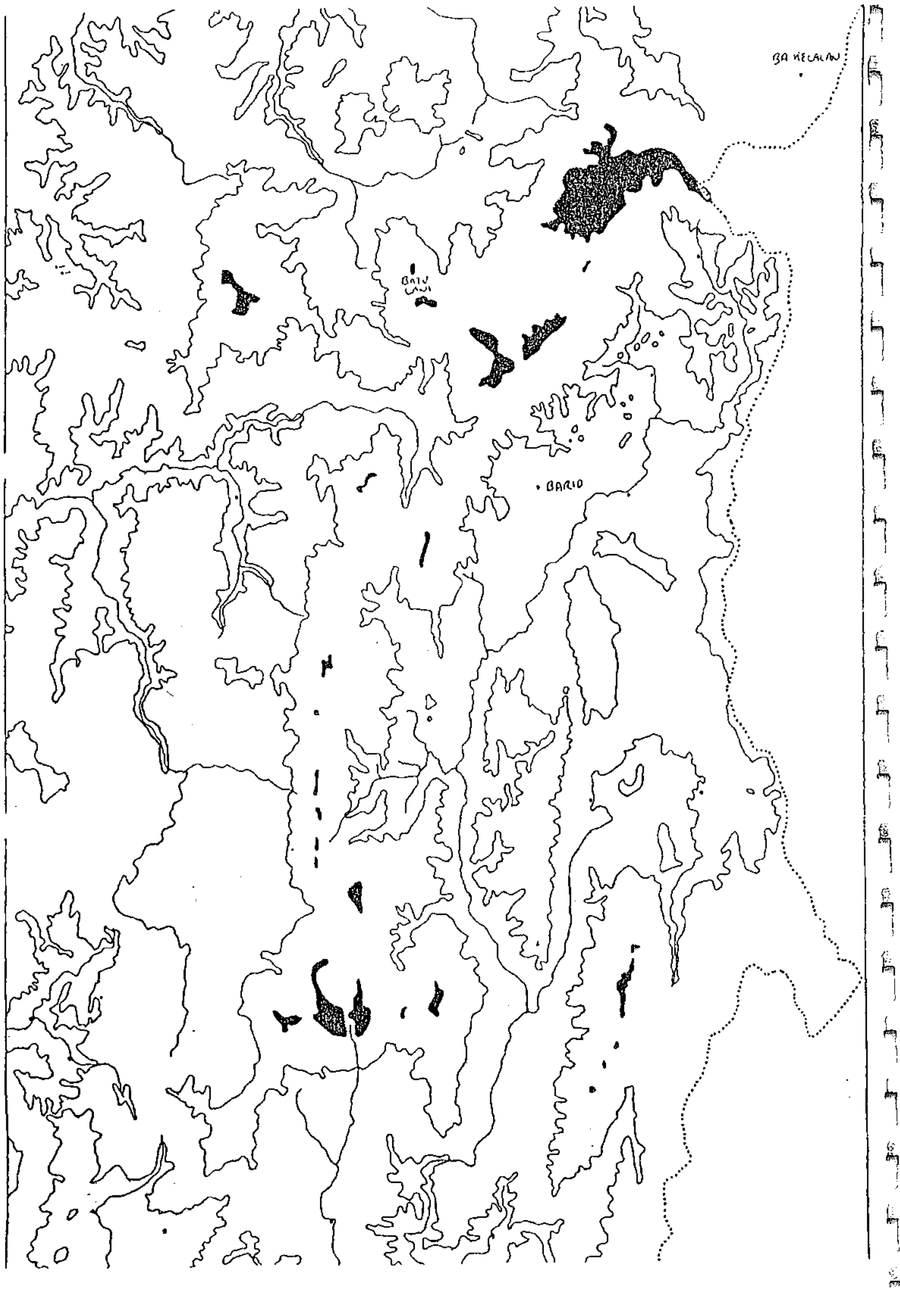
The purpose of this paper is to summarize the measures taken to protect the rhino so far, and to indicate the direction of further actions intended to give this population a chance of long-term survival.

## 2. MEASURES TAKEN

## 2.1 Eastern Sector.

Rhinoceros protection depends above all on the willingness of local people to work with the authorities, so people living near the rhino area have been deliberately involved from the beginning. Several dialogue sessions were held during September 1986 with Kelabit and Lun Bawang community leaders from both sides of the Sarawak-Indonesian border. The objectives were to confirm Sarawakian support for protecting the animals and their habitat, and to explain to the Indonesians why unauthorized hunting excursions into Sarawak territory could no longer be tolerated.





Building on the consensus which developed during these meetings, it was decided to emphasize the deployment of enforcement staff in and around the rhino area, so as to deter hunting. In order to involve the local communities as much as possible, Forest Department funds were used to employ two 'Wildlife Rangers' each at Bario and Ba Kelalan. These individuals were selected to be involved in this project long-term, and have the responsibility of organizing patrols through the eastern sector of the rhino area, using other local men on rotation as well. Regular visits to Bario and Ba Kelalan by NPWO Forest Guards and other personnel have allowed for supervision of this system.

These patrols were functioning by the end of September 1986, before the presence of rhinos in the state was announced in a press release by the Chief Minister's Office. The patrols, which operate in informal collaboration with the Border Scouts, have been successful at intercepting parties of potential poachers. In particular, the incidence of illegal hunting by Indonesian visitors has been greatly reduced. The single most significant incident so far was probably the arrest of an Indonesian in possession of an illegal firearm; the gun was confiscated, and its owner spent three months in gaol before being deported. Now that Indonesian hunters have largely ceased to cross the border, an increase in game abundance is reported in the frontier zone.

Since being initiated in 1986, the Bario-Ba Kelalan patrol system has been successfully administered by NPWO's Miri office, with occasional visits by officers from Kuching. It is planned that additional resources are allocated to the area in due course, including radio equipment to make co-ordination easier.

## 2.2 Western Sector.

Following a series of meetings with the Director of Forests in February, May and June 1987, and visits to relevant communities, it is planned that a similar patrol system be set up in the western sector of the rhino area. Expenditure is already authorized to hire Wildlife Rangers at Long Napir (Limbang) and Long Seridan (Magoi, Baram), but the situation on the ground is more complex in this area than in the east. For example, the greater distances involved will make necessary the use of a vehicle to deploy anti-hunting patrols on the periphery of current logging operations. Implementation is therefore being delayed until it can be integrated with a package of comprehensive measures supported by adequate resources.

It is envisioned that an important part of this strategy will be the introduction of strict controls on access in general, and hunting in particular, in the logging concessions surrounding the rhino core area. This will involve placing and manning road-blocks at key points, deploying additional enforcement staff at logging camps, and installing armories for the storage of weapons when not signed out for use. These measures have already been discussed with, and agreed by, the relevant timber companies.

Other measures to be included in the management plan for this sector will be: a) the irreversible cutting of logging roads after use, to prevent subsequent access; b) the scheduling of coupe entry to minimize the chance of rhinos being pressured away from, rather than towards, the core area by logging operations; and c) the distribution of leaflets advising of the new penalties for rhino poaching in appropriate languages (especially Chinese and Iban).

In addition, an amendment to the Forests Ordinance has been proposed, to expand the definition of 'forest produce' to include hunted game, which would have the effect of prohibiting hunting in production forests except under licence by the Director of Forests.

### 2.3 Habitat protection.

A 'core area' some 42,000 ha in extent has been identified as needing complete protection from logging if there is to be a realistic chance of protecting the rhinos from hunting. This area is presently licenced, but much is of marginal value for timber and the region contains spectacular landforms which make it of potential value to tourism. Therefore, a suggestion to integrate the area within the proposed Pulong Tau National Park has been discussed with the Director of Forests, and will be formally elaborated in due course.

### 3. CONCLUSIONS

In and around the Limbang headwaters of Sarawak, there is an opportunity to conserve a viable population of Sumatran rhinos. In this area there is the unique combination of a supportive local populace, almost no human use of the core area, and terrain which favours the defence of that core area. Added to these factors, the early measures which have been taken already establish a sound basis for further action. With protection of enough of the rhinos' range from disturbance, and the careful planning and implementation of controls on access, indefinite survival of this population should be possible. Nowhere else on Borneo are there rhinos with such favourable indications for long-term conservation in the wild, so the Sarawak population may well prove to be the last stronghold of the Bornean subspecies, *D.s. harrissoni*.

The above is a summary to date of the Sarawak Forest Department's response to this conservation problem and opportunity. It is intended that a management plan for the state population be prepared over the next few months. Meanwhile, a proposal is in preparation for a 12-month project in 1968, intended to allow the full implementation and maintenance of protective measures in the area, as well as training of Sarawakian personnel and the gathering of additional information on the rhinos themselves and their habitat. It is envisioned that other specific needs will be identified during that project.

## HELP SAVE SARAWAK'S RHINOS

### Selamatkan Badak Kita

- 1) The dwarf two-horned Sumatran or woolly rhinoceros or rhino is probably the world's most endangered kind of wild animal. It is a harmless, shy, mammal which lives a solitary life deep in the forest, and which flees from human disturbance.
- 2) Wherever these animals live, people have killed them in great numbers. This is because many people wrongly believe that the parts of a dead rhino have 'medicinal' properties. However, scientific studies have shown these claims to be a lie. Anyone who spends good money on such false 'medicines' is the victim of deception and fraud, as well as contributing to the extinction of the rhinos.
- 3) Because so many people have ignorantly paid for dead rhinos, there is nowhere in the world that rhinos can now live in real safety. Until very recently, we in Sarawak thought we had lost our rhinos when they were massacred before the Japanese War. Now, however, a small population has been found alive, in a remote mountain region.
- 4) Because they are so threatened elsewhere - in Sabah, Sumatra and Semenanjung - in a few years perhaps none of these rhinos will survive in the wild, except here in Sarawak. Our actions now will decide whether the species will live or die out.
- 5) These rhinos are a priceless national heritage - they are Sarawak's animals; we are responsible for protecting them now, and we will be judged by the rest of the world if we let them all be killed.
- 6) We in Sarawak will also take the benefit from possessing them - they have a great value for tourism, both because Sarawak will be famous for having them in its forests, and because visitors may hope to see a rhino or its tracks.
- 7) These animals are so important to Sarawak that a new law was passed by the Dewan Undangan Negeri in 1986. This allows for a \$20,000 fine and 2 years in jail for hunting, trapping or killing rhinos, or for attempting to hunt, trap or kill them. In addition, guns and all other equipment used in the crime will be confiscated.
- 8) These rules have been made under the Wild Life Protection Ordinance. The National Parks and Wildlife Office (NPWO) of the Forest Department is responsible for enforcing them. In all cases involving rhinos, the NPWO will demand that the maximum penalty be applied to law-breakers.
- 9) The rhinos and their forest homes are now under constant protection by patrols organized by the NPWO, and by local people. Anyone attempting to hunt rhinos will be arrested and prosecuted. These patrols will be continued indefinitely.



10) WARNING: The local people are determined to protect these rhinos, and will not tolerate poaching attempts!

11) What you can do to help:

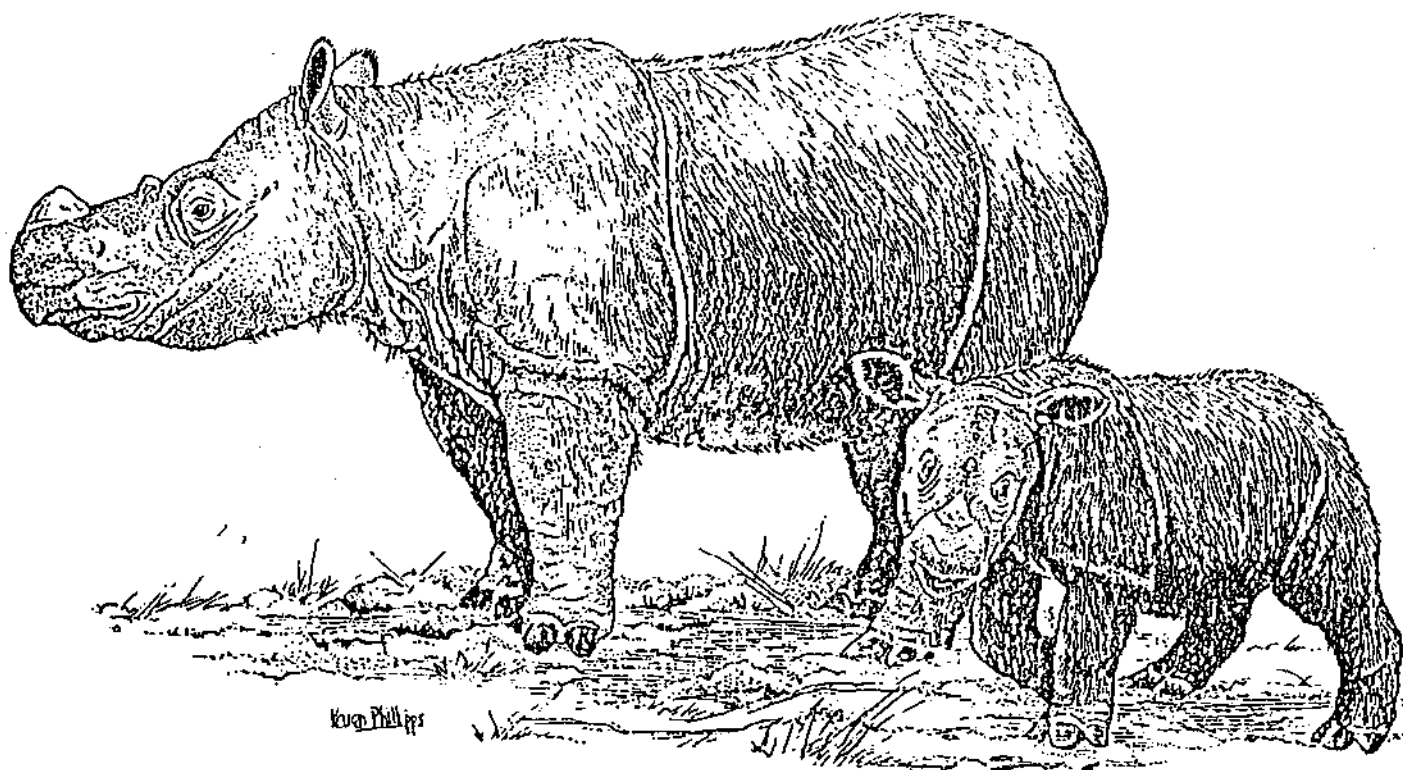
- report people who are conspiring to hunt rhinos, or who have hunted them (NOTE: the law allows for informers to be awarded up to one-half of any fines imposed; this may be as much as \$10,000!);

- report people who are selling rhino products (medicines, horns, hooves, tonic wine, etc).

- do not hunt rhinos yourself, or buy or sell any of their products;

- co-operate with NPWO rhino-protection personnel at all times.

12) If you have any information about rhinos and their protection, please contact the nearest NPWO or Forest Department staff



National Parks & Wildlife Office  
Sarawak Forest Department  
Jalan Gartak, 93000 Kuching  
Sarawak, Malaysia



MINUTES OF A SPECIAL MEETING OF THE TECHNICAL SUB-COMMITTEE HELD ON 15 MAY 1987 AT 3.00 PM IN THE SRWCC SECRETARIAT

PRESENT:

Encik Lamri Ali	- Chairman
Puan S.J. Jayasuriya	- Secretary
Prof. Dr. Jainudeen Mohd. Razeen	
Encik Mahedi Andau	
Encik Rob Stuebing	
Prof. Madya Dr. Murtedza Mohamad	
Dr. Edwin Bosi	
Capt. Mohd. Anwar	- Markas Lima Brigade (By invitation)
Capt. Mohd. Zabidi	- No.5 SKN TUDM Labuan (By invitation)

The meeting was called to discuss with the Army the role of the Army in assisting SRWCC in its projects, and also to outline the Plan of Action.

The Chairman having introduced members present at the meeting, gave a briefing on areas of capture and why animals that are threatened should be moved. He also briefed on the trapping techniques used by SRWCC.

The meeting, having discussed all aspects of the capture operations, resolved the following:-

1. The Air Force would, on receiving a call from Kota Kinabalu, dispatch a helicopter from Labuan to Kota Kinabalu which will take about 35 minutes of flying time. SRWCC's team will be picked up from KK and be flown to the Capture Site with a flying time of approximately 1½ hours.
2. The Air Force will, when necessary, air-lift the animal in the crate from the capture area to a vehicle that would be on standby at the Sukau School. The Executive Secretary to request for permission for this operation from the Headmaster of the Sukau School.
3. SRWCC will ascertain clearings of 60' square at capture area for the helicopter to come down to lift the animal and the crate out. Encik Rob Stuebing will be responsible for identifying the areas for clearance. Clearance for helicopter landing at the Base Camp will also be prepared.

4. The 371 Company Air Dispatch Team of the Air Force in Labuan will accompany the helicopter on all operations.
5. The Air Force confirmed that the helicopter is able to carry a maximum weight of 5000 lbs. It is also confirmed that the transport crate is too big to get inside the aircraft and would therefore have to be lifted in a sling with the possibility of using a parachute to stabilize the crate should the animal move in the crate.
6. The Air Force will ascertain that its personnel in Labuan will be thoroughly briefed on this project so that when a call comes from KK, the receiver would immediately notify the relevant officers for action.
7. The Executive Secretary will contact the 371 Company Air Dispatch in Labuan to request whether they can supply the strap, sling and any other materials and equipment required for the use of air-lifting the crate. Proper structure of the crate for this air-lifting purpose must also be ascertained.
8. The meeting also agreed that a mock trial be carried out as soon as possible on completion of the crate which will be constructed in KK. The Executive Secretary to purchase the necessary materials for the crate. Encik Lamri Ali will provide the labour for the construction of the crate. The mock trial will be done at the Lok Kawi Padang, with the helicopter lifting a crate with a buffalo inside it and flying towards the sea and back. The Executive Secretary will request permission from Brigadier General Abco Samah bin Abco Bakar of Lok Kawi Camp for the mock trial to be carried out at Lok Kawi.
9. The Executive Secretary will also request permission from General Hwang Chew Siong, Markas Udara Wilayah Dua Kuching for permission to do this mock operation.
10. Dr. Edwin Dosi will arrange for someone to deliver the buffalo to the mock trial site and to take it back for a fee of approximately \$100.00. The meeting also agreed that should there be an accident and the buffalo dies, SRWCC would reimburse the owner for the buffalo.
11. The meeting also requested the help of the Army from its base in Lahad Datu, Tawau or Sandakan in providing land transport and personnels to move the animal from one area to another as and when required. The Executive Secretary will request

this service from Brigader General Abou Samah bin Abou Bakar. The Executive Secretary will also ascertain the line of command in order that the proper authority is given.

The meeting adjourned at 4.20 p.m. with the Chairman thanking all members present and especially Captain Sabidi who had come all the way from Labuan and Captain Anwar.

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SECRETARY

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CHAIRMAN

MINUTES OF THE 7TH MEETING OF THE TECHNICAL SUB-COMMITTEE OF SRWCC  
HELD ON MONDAY, 4 MAY 1987 AT 9.00 A.M. IN THE SRWCC SECRETARIAT

PRESENT: Encik Lamri Ali - Chairman  
Mrs. S.J. Jayasuriya - Secretary  
Encik Mohd. Khan b. Momin Khan  
Dr. Edwin Bosi  
Encik Rob Stuebing  
Dr. Murtedza Mohamed  
Encik Mahedi Andau  
Encik Mohd. Tajuddin Abdullah - By Invitation

I. Confirmation of Minutes of 6th Meeting

The Minutes of the 6th Meeting of the Technical Sub-Committee of SRWCC was confirmed, proposed by Encik Mahedi Andau seconded by Dr. Edwin Bosi.

II. Confirmation of Minutes of Special Meeting  
Held on 14 March 1987

The minutes of the Special Meeting held on 14 March 1987 was confirmed, proposed by Encik Rob Stuebing seconded by Encik Mahedi Andau subject to the following correction:-

Page 1, Item 1 - the word "reaped" to read "ripped".

III. Confirmation of Minutes of Special Meeting Held  
on 31 March 1987

The Minutes of the Special Meeting held on 31 March 1987 was confirmed, proposed by Dr. Murtedza seconded by Encik Mohd. Khan.

IV. Matters Arising

a) Wildlife Bill

The amendments to the Fauna Conservation (amendment) ordinance 1987, was passed at the last Assembly Meeting, authorising the Chief Game Warden to issue special licence to individuals or groups to capture rhinos for breeding or research purposes. This enactment is effective from the 1st January 1987.

The rest of the proposed amendment to the Fauna Conservation Ordinance is still being scrutinised by the State Attorney Chambers Office.

b) Station in Lahad Datu

The Station in Tabin is 55% completed. Expected completion period for the whole project including stockade is 8 July 1987.

The Technical Team visited the Station on 15 April 1987 and decided that the stockade be sited further from the main building - a distance of 60 to 100 metres. There will be certain variations to include the following:-

- i) Stockade to have a shade made of "atap nipah" or other similar natural materials;
- ii) proper drainage for wallows;
- iii) the water tanks and supply were considered too small and should be increased to 5000 gallons. Also provision for 4 rain water 400 gallons tanks were needed.
- iv) the 2½ hp water pump was considered inadequate and a pump of 25 hp minimum would be required.
- v) the generator for the Station was of a 10KVA size. The Secretariat to check whether a 10KVA generator is sufficient for not only the current operation of 25 hp water pump and approximately 7,000 watts electricity but also for future expansion which would be three times of present current usage. If it is found to be insufficient a second generator should be installed.
- vi) facilities for playing badminton be provided.

JKR engineer in Lahad Datu will work out the variations for submission.

c) Emblem for SRWCC'S Vehicles

KIV

d) Employment of Research Officer and Project Coordinator

Advertisements were placed in the New Straits Times and Star in Semenanjung on the 26 and 27 April 1987.

e) Establishment of Posts Required

The Secretariat has submitted to the Director of Establishment a request for the establishment of all posts required by SRWCC. In view of the impending move to include Wildlife Section under the Ministry of Tourism and Environmental Development the Ministry has decided that the establishment of all posts be KIV for the time being.

- f) Proposed Joint Conservation/Research Station of SRWCC and Wildlife Section of the Forestry Dept.

The meeting resolved that as a joint visit has not been made to the proposed site SRWCC would go ahead with its own proposal first.

- g) Imprest Account

This matter has not been finalised. However, arrangements have been made with the District Officer in Lahad Datu whereby they will sponsor purchases to be made by SRWCC.

- h) Purchase of 3rd Vehicle

It was recommended that a 4-wheel drive flat deck vehicle be purchased. This is required to carry the transport crate. Quotations and specifications will be obtained.

- i) Married Quarters

The meeting agreed that provision for married quarters be made in the 1988 budget.

- j) Alarm Device

The Executive Secretary informed the meeting that there are no suitable alarm device available for such an operation.

- k) Weighing Scale

Only two quotations have been received. The Ministry has requested for 5 quotations. The Secretariat to attempt getting quotations from Sarewak and Semenanjung.

- 1) Skin, Horn and Bones of the Linbar Rhino

The meeting resolved that the skin, horn and bones of the Linbar Rhino be the property of SRWCC but kept for display in the museum. An agreement to this effect will be drawn up and signed by both parties.

V. Adoption of Budget Review

The meeting adopted the proposed budget review of 1987.

VI. Adoption of Proposed 1988 Budget

The meeting amended the proposed budget as follows:

a) Other Charges, annually recurrent

i) Training and Research

Increase to \$15,000 (additional \$10,000).

ii) Booklets (Public Relation & Education Sub-Committee)

\$30,000 to be deleted.

b) Special Expenditure

i) Truck

One 3 ton truck for \$38,000 be deleted

ii) Water Tanker Trailers (not only one but allow for more)

iii) Photostate Machine

\$4,950 be deleted

c) Infrastructure

To make provision for:-

i) Enclosure and facilities for 10 animals - \$250,000

ii) Staff Family Quarters - \$100,000

The Proposed budget for 1988 would therefore be \$1,025,292.95

The meeting then adopted the proposed budget subject to the above amendments.

VII. Briefing From Encik Mohd. Tajuddin Abdullah

Encik Mohd. Tajuddin Abdullah briefed the meeting as follows:-

Intensive orientation training (theory and Practical) were given to the Sabah Rhino field team by three personnel from the Wildlife and National Parks of the Federal Dept. who were:

Encik Mohd. Tajuddin Abdullah (Pegawai Pengurusan Badak  
Ibu Pejabat, Kuala Lumpur)



Encik Shahrudin Othman (Pelindung Hudu an Lior,  
Ibu Pejabat Kuala Lumpur) and

Encik Mohamed Shah Mohamed Lasa (Temerloh; Pahang).

The training was for ten days, (23/4/87 - 2/5/87) carried out day and night. The purpose of the intensive orientation was to train the SRMCC staff and to instil a positive attitude in their work. Every person was delegated duties to be assisted by an assistant.

The Sabah Rhino staff involved were:-

- 1) Jinli Perijin - Team Leader
- 2) Kasturi Engkong )
- 3) Walter Gusui ) capture hardware
- 4) Lamansah )
- 5) Jaafar Mandog ) water supply
- 6) Joseph )
- 7) William Aloysius ) electricity & lights
- 8) Arsid Hamzah ) ropes & carpenter
- 9) Mohammad Temenggong ) carpenter & cook
- 10) Waki Joh )
- 11) William Matakim ) vehicle, winch & pulley

Training covered were:

- 1) Explanation and correct use of capture equipment such as chain block, crowbar, winch, mechanical drill, water pump engine, generator, chainsaw, tying of ropes, u-shackles, carpentry tools, pulley, etc.
- 2) i) Building of transport crate and moving the crate from the jungle, etc.  
ii) Training on loading the transport crate onto the vehicle and unloading it from the vehicle.
- 3) Day and night intensive training in:
  - i) cutting logs of 6" diameter, 8-9' long - 100 poles.

- ii) building two shades and fence around the pit trap.
- iii) using the chain block between two poles to lift the transport crate onto and off the pick-up lorry.
- 4) i) the most dangerous attempt was to bring the transport crate across the Kinabatangan river on a self-made raft.  
ii) Building the raft with nylon ropes, plywood, logs and two drums.
- 5) Briefing by each work group leader to their team. This was to assess whether they understand their individual task.
- 6) i) Methods on the best ways of tracking rhinos, and information on the rhino's habits and their way of eating.  
ii) Modification of traps.

Throughout the duration of the training, all Sabah Rhino staff were cooperative, eager to learn and shared their knowledge on the ways of capturing rhinos. Awareness of the fact that one rhino had escaped and one had died in the pit-trap has given the Sabah Rhino staff further enthusiasm and determination to capture a rhino.

At the end of the training, prizes were given to the 3 best participants:-

- i) best overall trainee : Waki Joh
- ii) new ideas, proposal and eagerness to learn : Arsid Hamzah
- iii) effort to improve quality of work : Lamanshah

#### Pit-Traps

Encik Tajuddin informed the meeting that the traps have been modified and that a 4th pit-trap had been dug 4' wide, 8' long, 6' deep with 4' of bumper.

#### Third Team Leader

He also recommended that SRWCC should have a third Team Leader. The meeting confirmed that Encik Mahedi Andau will provide SRWCC two of his men - Encik Stephen Sirah or Simon Ambi and Encik Sampaladon Pilik.

### Mock Operations

A mock operation should be arranged to give further exposure and training to the Field Team.

### Visits to Base Camp

It was recommended that members of the Technical Sub-Committee and the Executive Secretary visit the base camp regularly.

### Numbers of Animals in Sukau

From recent survey it is believed that there are 3 or 4 animals roaming around Sukau.

## VIII. Reactivation of Trapping Operations

Encik Tajuddin informed the meeting that SRWCC has sufficient manpower and facilities to operate only one trapping area at a time.

The meeting therefore resolved that reactivation of the trapping operations be in the second week of May 1987 in Sukau. Ten traps will be set.

Consideration for reactivation of trapping operations were based on the following reasons:-

1. Three personnels arrived from Kuala Lumpur from the Wildlife and National Parks on 20 April, 1987. They are:  
Encik Mohd. Tajuddin Abdullah, Head of the Rhino Management Unit in Kuala Lumpur, Encik Mohd. Shah who is an expert in crate making and Encik Shahrudin Othman, an expert in trap making.
2. The Field Team has been prepared by Encik Mohd. Tajuddin.
3. They have been prepared to handle the animal in the trap prior to arrival of the experts.
4. They have undergone four mock operations.
5. They have also undergone an operation to take the transport crate across the Sungai Kinabatangan on a raft.
6. They have been trained to use all equipments necessary for capture.
7. There are sufficient capture equipment and base camp facilities.

8. Four members of the team have been trained to make transport crates. One transport crate is ready and another is being built. As trapping operation will only be concentrated in one area the two vehicles SRWCC have currently are sufficient for this operation.
9. Stockade in Sepilok will be ready to accommodate the animal.
10. The Army has also pledged to provide air transportation for the Technical Team to proceed to capture area on immediate notice.

#### Veterinary Back-Up Service

The meeting was informed that the Director of Jabatan Perkhidmatan Haiwan and Perusahaan Ternak Kota Kinabalu has agreed to allow Dr. Baitun Pusingan, Veterinary Officer for Tawau, to assist Dr. Edwin Bosi when required.

Encik Ibrahim bin Mokhtar did not agree to SRWCC'S request for the services of Dr. Michael Lee, Dr. Peter Lee or Dr. Abdul Halim Mechor.

#### Sepilok Stockade

The meeting requested the Wildlife Section of the Forestry Department to modify the wallow in the Sepilok Stockade and to clear a Passageway so that the vehicle carrying the transport crate could reach the stockade. The Executive Secretary will seek the assistance of JKR to make the clearance for the passageway.

#### IX. Any Other Business

##### a) Television for Base Camp

The meeting resolved that a colour 14" television set be purchased for the base camp.

##### b) Dr. Charles Santiapillai

The Executive Secretary received a letter from Dr. Charles Santiapillai requesting information on rhinos and elephants in Sabah to be sent to him. Dr. Santiapillai also informed the Executive Secretary that he would be visiting Sabah some time this year and would like to meet with some key individuals to discuss conservation issues.

The meeting resolved that we make available to Dr. Santiapillai "A Faunal Survey of Sabah" carried out by Dr. Junaidi Payne and Glen Davies in 1982. The Secretariat would also refer him to the relevant individuals on his visit to Sabah.

d) Vote of Thanks

The meeting recorded SRWCC'S thanks and appreciation to Encik Mohd. Khan and his staff, Encik Tajuddin, Encik Shahrudin Othman and Encik Mohamed Shah for their great support and help they render to SRWCC, and especially for giving away their personal belongings as prizes to three best achievers of the training.

The meeting adjourned at 3.25 p.m.

## Galapagos fires shed light on slower-burning issues



*The volcanic terrain of the Galapagos.*

Photo: WWF

Negotiations are underway between IUCN and the Swedish government to obtain financial assistance for rehabilitation of some 300 square kilometres of burned land on Isabela Island in the Galapagos Archipelago, as well as for possible support for farmers in the region, says Ole Hamann, IUCN's Plants Officer.

The fires which raged for several weeks in March and April on both Isabela and San Cristobal Islands are out, except for some still-smouldering areas, Hamann reported in late May. He adds that on Isabela the fire was so severe that it destroyed the soil and any seeds that were growing on it and small animal species that lived there.

Hamann reports that the Government of Ecuador is now setting in motion the process of creating firebreaks on the north-western part of Isabela near the volcano. He says the breaks would ensure that both nearby farming areas and the habitats of giant tortoises and land iguanas are protected from future fires.

The fires have been widely reported as a wildlife catastrophe. But they may have more positive effects in the long term, says Hamann, who is also Vice President of the Charles Darwin Foundation, which runs a biological research station in the archipelago.

Hamann points out that the loss of any numbers of any of the islands' wild animals like the Sierra Negra subspecies of the Galapagos Giant Tortoise would indeed be a cruel blow. But none of the main centres of wildlife populations in the islands was affected by the blaze, he says. The islands include several active volcanoes and are quite often drought-ridden, so have always been prone to fire. But the plants and animals of the Galapagos have adapted to this ages-old pressure and their populations have shown themselves able to recover in a few years from the effects even of big fires.

Unesco (which administers the World Heritage Convention, under which the Galapagos are a listed natural site) has already pledged \$10,000 from the World Heritage Assistance Fund to help rehabilitate the officially protected areas affected by the fire. It doesn't sound like a lot. But in rehabilitation work it could go a long way on Galapagos, says IUCN protected areas authority Jim Thorsell.

Larger injections of financial support from concerned conservation groups like WWF-Japan and WWF-Germany were pledged mainly to help with wildlife rescue operations. But much of the money could go to aid the work of habitat restoration. IUCN and WWF have several projects under way in the islands in the hands of the Galapagos National Parks Service and the Charles Darwin Research Station. None of the project sites has been affected by the fire and there is much expertise available for restoration of the natural environment on Isabela and San Cristobal.

All this, however, still spells little cheer for the damaged islands' human inhabitants. Settlement in the Galapagos is a contentious issue. But the farmers are there to stay and the Ecuador Government has worked to make settlement compatible with nature protection in the islands. Starting afresh on Isabela may offer an opportunity to further this ideal. But any improvement in the official approach to land use there will cost money and Ecuador, though an oil producer, has little to spare for the task.

One way of boosting revenues which has been proposed by some Ecuadorian politicians is the development of large-scale recreational type tourism in the Galapagos. At last year's General Assembly of IUCN in Madrid, a resolution was passed calling on Ecuador to quash any such development. Ecuador's President Febres Cordero responded recently by promising that his government would do all it could to: "...preserve the natural balance of the islands' ecosystems and protect them from harmful human influences." Few can doubt that the long-term prospects for keeping the islands in good ecological shape rely on Ecuador's firm and systematic approach to the task of keeping tourism and settlement within sensible limits, for the sake of human and wildlife interests alike. □

*A fuller account of the Galapagos fires appears in IUCN Feature Stories Pack 1985/2, obtainable from the Bulletin office.*

## GOOD NEWS FROM NATURE

### Père David's deer

Dr Hartmut Jungius, head of IUCN's Project Services, and Dr A. Loudon of the London Ecological Society went to China in March to follow up a 1984 mission which saw WWF and IUCN join the Chinese government in a project to re-introduce Père David's Deer into the country. The deer, named for the missionary-naturalist Père Armand David, has the antlers of a deer, the hoofs of a cow, the neck of a camel and the tail of a horse — characteristics reflected in its Chinese name 'SSupu-hsiang' meaning the 'Four Unlikes'. It is believed to have been extinct in the wild for more than 200 years.

After the first mission, the Chinese took responsibility for the task of finding a suitable reserve for the deer. Their final choice is an area near Da-Feng of 1,000-1,500 hectares, covered with forests, grasslands, wetlands, ponds, canals and ditches which will provide a ideal terrain for the deer after some replanting designed to make sure the deer's preferred food plants are well represented in the local vegetation by the time the animals are released.

The next step, which Dr Jungius says will probably be the most difficult, is to acquire the forty or so deer needed to get the reserve herd started. Within the next few weeks discussions to settle this question will be held between the various zoological gardens in Great Britain interested in providing the deer. The meeting will also determine how the deer will be transported to China. IUCN and WWF will participate and provide background information on the selected site.

"The Chinese authorities consider this their most important deer conservation project," said Dr Jungius. "The deer have been extinct in China for a long time. It is their desire to have them back, but not in a



*Père David's deer.*

Photo: WWF, Vollmar

1986 seems likely to be a red-letter year for reintroduction and captive breeding projects. Though perennial controversy surrounds such exercises, which many see as meddling in natural selection, the success of model schemes like Operation Oryx may have turned the tide of opinion in favour of giving other species the chance to reclaim native habitats, especially in cases where human (therefore mutable) factors rather than irresistible natural pressures are driving or have already driven species into exile and technical extinction.

Three outstanding projects involving reintroduction, captive breeding or both, are now under way and timed to reach their peak next year. They concern Père David's Deer in China, the Sumatran Rhino in Indonesia and Malaysia and the Przewalski Horse in the Peoples' Republic of Mongolia.

safari park; they should go back to a semi-wild environment. In fact, about five kilometres away from the site where they will be located, antlers have been discovered, indicating that the species lived in the area a couple of hundred years ago," he said.

The final stages of the project (fencing and enclosure-building on the final site) will go ahead once the deer-owners have agreed to provide the animals required and as soon as transport has been arranged. If things go according to plan, the first herd of 'Four Unlikes' could be back in the wilds of China in March or April of 1986.

## Kingdom for a horse

The only truly 'wild' horse of recent times ranged over the steppes of Central Asia. Called Przewalski's Horse, it probably became extinct in the wild in the late 1970s though reports are still heard of survivors in very remote areas.

A few individuals were taken into captivity some time ago and, though some genetic contamination through interbreeding with domestic stock is known to have occurred since then, the world's Przewalski Horse breeders have worked hard to 'breed out' this contamination and to keep the remaining captive population of this species physically and genetically viable. The world studbook, started in 1959, now shows a total population of around 600 animals in about 100 locations, mostly zoos, in many parts of the world.

Now the dream of reintroducing the horse into its natural range, where it can run wild and once more undergo the rough-and-tumble of natural selection (removed from which it remains a genetic resource of little account) may be set to become a reality. A workshop held in Moscow from 29-31 May brought 25 specialists from Europe, North America, the Peoples' Republic of Mongolia and the USSR together to discuss steps which could be taken to reintroduce the species to the wild in Mongolia. IUCN, UNEP, the USSR Centre for International Projects and FAO are prime movers of the plan. "Steps agreed at the workshop seem sound and practicable but not simple, easy or quick," says IUCN's Robert Scott, Executive Officer of the Species Survival Commission, "so stay tuned!" □

## New hope for 'woolly' rhino

For years conservationists have been anxious about the fate of the elusive Sumatran rhino — sometimes known as the 'woolly' rhino. The estimated 850 of these unique creatures left in the world face extinction because of hunting and human population pressure in their native Thailand, Indonesia and Malaysia. But their day may now have been saved by a bold conservation plan involving the Indonesian and Malaysian governments and several zoos in Britain and the United States.



Sumatran rhino.

Photo: Nico van Strien

Under the programme, the rhino will receive better protection in sufficiently large areas of its natural habitat. There will be a captive breeding programme to preserve its genetic diversity in its home countries, as well as in North America and Europe. An education programme will be launched to enhance public awareness of the rhino's plight and to generate support for its conservation.

Agreement on the programme has been provisionally reached between representatives of the Indonesian and Malaysian governments, the American Association of Zoological Parks and Aquaria (AAZPA), and Howlett's and Port Lympne zoo parks in Britain. In America, it is hoped to have rhinos at San Diego, Los Angeles, Cincinnati and New York zoos.

Dr Nico van Strien, a Dutch mammalogist who has been appointed Coordinator of the programme, says the rhino is an extremely difficult animal to find, let alone study or capture. He had to rely on tracks, feeding signs, and other evidence during his research in Gunung Leuser. He claims a world record of sightings — three in four years.

Because the aim, above all, is to conserve the rhino in the wild, trapping will be confined to 'doomed' animals — those occurring as small isolated populations with no future because their habitat cannot be preserved. There are risks in the captive breeding programme, for there is very little experience of handling Sumatran rhinos in zoos, although Indian and both kinds of African rhinos have been successfully bred.

"We shall have to learn a lot," says Dr van Strien. "But the rhinos we capture will be those subject to greater risks in the wild than in captivity. We shall decide on a case-by-case basis. If there is good chance for an animal to contribute to breeding in the wild, we shall leave it there."

Because rhino horn is fetching, higher and higher prices as it becomes rarer, there is still hunting for the Sumatran rhino. But Dr van Strien says the art is dying out. And in a rather strange twist, some former poachers may be employed in the coming programme because they have the stamina to remain in the forest for the long periods necessary to locate rhinos. □



Przewalski's Horse.

Photo: WWF/Bannikov