Englishman David Parkinson is known as one of the world's best animal catchers. RATAN KLER spoke to him in Kota Kinabalu where he is helping to save the Sumatran rhino

Hold that rhino!

DAVID PARKINSON...most people don't understand how animals are captured

HOW to catch a rhino...the slide trap used by Mr Parkinson

"THERE is an old saying that any fool can catch an animal. But, there is another saying that if you want to keep an animal alive, you had better not let a fool catch it."

DAVID Parkinson, who relates the epigram, is no fool.

With more than 200 rhinos captured in his career, this soft-spoken Englishman has built up a reputation as one of the world's best animal catchers working in both Asia and Africa.

It is difficult to equate the mild gentleman sitting in front of me with his jungle reputation and it is a point Mr Parkinson, 49, deals with quickly.

"There is a misunderstanding about the capture of animals," he said last week while in Sabah for a rhino forum.

"People think animal catchers are all big and muscular. In fact, it is all conducted scientifically. The capture has to be done gently."

So gently, in fact, that Mr Parkinson tries never to use ropes or touch the animal by hand.

And the capture, which is the operation that grabs the attention, is not the most critical point for Mr Parkinson.

"The capture of animals is often not even a problem. The important thing is what you do after that."

The capture may take a few minutes but Mr Parkinson and his team of eight to 10 helpers will stay with the animal for four or five months until it is acclimatised to captivity.

The unassuming Mr Parkinson is no modern version of a big game hunter, turning to catching animals now the gun has been silenced by conservationists.

"I don't like catching animals for the sake of it," he said. "I think it is tragic that we have reached the point when we have to catch an animal because it has become endangered.

"I much prefer wild animals to be left in their natural habitat unmolested. We catch animals because it is a necessity. We try to catch them professionally.

Mr Parkinson, who is director of field operations for the Sumatran Rhino Trust based in Sumatra, says he caught animals only if they were eventually returned to their original habitat.

"At the moment I am interested in the capture of endangered species and their propagation and, at the same time, the protection of their natural habitat — that is very important.

"There is no point capturing and breeding them if there is no place to return them at a later stage.

"Even with the best will in the world, during the next 10 years, several species of wildlife will become extinct."

High up on the danger list is the Sumatran rhino, which still lives in isolated pockets of Sabah, and is the focus of a multi-million dollar international breeding campaign.

Mr Parkinson is disappointed that the Sabah Government rejected the plan, on the grounds its rhinos would be taken overseas for breeding.

But he is pleased to find an awareness of conservation in Sabah and wants to see the Sabah Rhino and Wildlife Conservation Committee given time to carry out its own project.

He was impressed with the staff of the wildlife section of the Forestry Department, whom he met in August during a brief study of the Danum Valley on the east side of the Segama River to size up the terrain and problems of getting rhinos out.

That study happened while the Sabah Government was still considering whether to accept the international rescue campaign. He said he found rhino tracks in the valley but might take six months to bag the first rhino. After that he could catch one or two a month.

Mr Parkinson is based at Pekan Bahru, Sumatra, building traps for rhinos.

He said the rhino had a home range of about 20 square kilometres and a trap was the only way of catching

He uses two sorts of trap, the surface trap and sliding trap. The surface trap takes about a week to set up and consists of two doors which are hoisted into the trees.

When the rhino wanders into the trap, it triggers the doors which fall and lock into position because the animals can learn to lift the doors.

The slide trap takes longer to set up but is more effective. It is a carefully lined hole dug in the ground topped with sliding doors covered with undergrowth.

Once caught, Mr Parkinson's team moves its tents on to the site and the animal is persuaded into a paddock where it stays until it is acclimatised.

"From experience you can tell when they are ready to be moved," said Mr Parkinson.

He prefers to move them in their boxes because they regard that as home and he does not like helicopters.

Mr Parkinson's career began in Kenya at his godfather's game farm in 1954 where he learned animal capture and husbandry.

His earliest memory of capture was being put on a horse and told to put a lasso round a zebra.

"I lasted about 300 yards and fell off," he said.

In the next few years he travelled with trappers, working his way up from the bottom cleaning out pens.

"I was fortunate to have worked with some of the [illegible] catchers."

TALES OF TWO RHINO EXPERTS

Bulletin reporter Ratan Kler meets two experts who attended the Sumatran Rhino Forum in Kota Kinabalu last week

1 Bring 'em back alive

DAVID Parkinson's reputation as a big game trapper earned him a place on the TV series "Cowboys in Africa", starring Chuck Connors.

Mr Parkinson trained animals for the series and also stood in as Connors' double in animal sequences.

In 1972, he was back on the small screen helping to make a film called "The Biggest Bongo in the World".

Animals have also been his introduction to celebrities on other occasions. In 1968, he put up Robert Kennedy's son, Joe, at his farm while the senator's son guest-starred in two documentaries on animal capture.

PARKINSON

In 1978 he became consultant to United States millionaire Nelson Rockefeller who had a wildlife ranch in Texas. The job lasted a month until the millionaire, who was also Governor of Texas, died.

Mr Parkinson has an impressive record of animal capture which includes both black and white African rhinos and elephants.

He was a member of the team which caught the first white rhinos in Uganda and looked after them during shipment to England.

He studied zoology at the University of Nairobi and in 1959 became a fully qualified and 8-carooed big game trapper in Kenya, authorised to be a zoological collector.

In 1961, besides catching Grevy zebras and giraffes for zoos, he trained a team to capture an Arabian oryx.

His work gained worldwide acclaim and in 1975 was asked by President Marcos to help with the shipment of eight species of African animals to the Philippines.

He became wildlife adviser in the Philippines in 1979.

He was loaned to the International Union for the Conservation of Nature in 1982 for a month to advise Thailand on the capture and protection of the kouprey.

He was hired for the Sumatran rhino rescue plan last year and has visited capture sites in Malaysia and Indonesia.

● One of the world's best — Page 18.

2 Rhada is a loved one

MICHAEL Dee carries the picture of a loved one around with him in his wallet.

Lots of people do that — Mr Dee, however, may be unique in that the target of his affections is Rhada, an Indian rhino.

Rhada's picture is carried in a leather wallet which, of course, has a rhino carved on the cover.

Mr Dee likes rhinos. There can't be too many people around the world who know more about rhinos than he does and he has been looking after rhinos since he joined the Los Angeles Zoo as a keeper 18 years ago.

He is Mr Rhino in the American world of zoos, being the official rhino specialist in Lost Angeles and the "species manager" for all the Indian rhinos in the United States.

How he manages the species isn't explained, but if he says it costs $US2000 a month to take care of just one rhino no-one would feel qualified to dispute it.

In fact, when you consider what Mr Dee says a rhino needs to eat to be a happy rhino, $2000 sounds a bargain.

"A rhino's food consists of a variety of fruits and vegetables, such as apples, carrots, grapes, and they love melons," he says.

"The bulk of the diet is provided by oat hay, concentrated mineral pellets, salt, hydroponic grass, bamboo and leaves."

Mr Dee was in Sabah to take part in a rhino seminar and he is just itching to get his hands on a Sumatran.

He has been breeding rhinos in Los Angeles and so far has proudly presided over the births of eight black rhinos, four Indian rhinos and one white rhino.

The Sumatran and Javan rhinos are the only versions of the species to have eluded his tender loving care so

DEE.

far, but he has high hopes of being given a chance to assist in Sabah's own captive breeding programme.

"It would be an honour, we would like to lend a hand," he says. "If the rhinos are not managed properly, you may as well forget about keeping them in captivity.

"No matter how much you feed it, if it is not the proper diet the animal will still die of starvation.

"You have to know about the rhinos physiology, temperament, behaviour, diet, cage design and quality of life while in captivity — without all that the rhino has no chance."

Mr Dee says each type of rhino "breeds in a different way" and one must know one's rhinos and their ways in order to know how to get them to breed.

"We had problems with our Indian rhinos because the cage they were in had originally been designed for Black rhinos," he says.

Modifications were made and, happily, parenthood came to the Indian rhinos whose characters are quite different from Black rhinos who are different from white rhinos who are, presumably, different again from Sabah's Sumatran variety.

But not that different, of course. He thinks he has learned enough from his other rhinos to be able to make a helpful contribution to the Sabah programme.

Rhinos: The bigger priority

5/12/93

By JOE FERNANDEZ

Sabah drops US-plan for a 'local' one

KOTA KINABALU — To say the *Dicerorhinus Sumatrensis* is today "affectionately' known as the Sabah rhino, may not be acceptable to all — not with current perceptions that "affection" for this rare rhino species is not unanimous.

But still for convenience, we shall refer to it as such.

To cap months of debate on the issues surrounding the rhino, the Sabah Society organised a forum aimed at giving participants information on all relevant aspects of the rhino and to hear the conservation proposals in Malaysia.'

In the event, held on Nov 12, at the Yayasan Sabah mini theatre, participants seemed not be getting the "full information' sought on local conservation plans and understandably so,

Answering questions from the floor was Dr Murtedza Mohamad, head of the technical arm of the Sabah Rhino and Wildlife Conservation Committee. The Committee was only recently set up.

One thing that came through loud and clear from Dr Murtedza on the SRWCC's plans was that if there was going to be outside help it had to be "transferred here.'

He also made clear that the SRWCC saw the conservation of Sabah rhinos as the most urgent aspect of a 'broader challenge' that of guaranteeing the survival of whole of Sabah's wildlife heritage.

While stressing that outside help had at no time been rejected, he said "we are most happy to invite the assistance so generously offered by the international conservationist community."

This community largely refers to the Sumatran Rhino Trust set up by the American Association of Zoological Parks and Aquariums (Aazpa) which had produced a proposal for captive breeding of the rhino.

This proposal involved the capture of several pairs of rhinos from this region some of which were intended for captive breeding in the US.

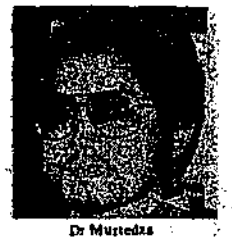
Dr Murtedza told the forum that the SRWCC has dealt first with its principal priority in the short-term, that is, a programme to guarantee the safety of Sabah's existing rhinos.

For this the Committee has laid down basic structures and guidelines to perpetuate and maintain the current emphasis on conservation of all threatened species in Sabah.

He stressed that the Committee must at all times keep public interest at heart, warning that wildlife resources should not be transformed into 'private hobbies.'

In a developing country, he said, local conservation programmes were necessarily an 'integral part of development' and must follow space with modernisation.'

"This is crucial to promote the direct involvement of locals in both the planning and implementation of projects for the long term success of any conservation effort.



Dr Murtedza

Awareness

'Experience can be obtained in only one way: "To take full responsibility for tackling both pressing problems at hand and formulating plans for the future,' Dr Murtedza said.

He notes that public response to conservation efforts in the United States blossomed in the 1930s and again in the Sixties 'due to a sudden awareness of the importance of wildlife as a national heritage.'

He says, much in the same way, Malaysia has awakened to the challenges of preserving endangered species.

'The SRWCC has decided to respond to these challenges and to succeed.

'As in developed countries such dedication and determination should pave the way for Sabah to gain the necessary expertise,' he said. 'Only then will Sabah's endangered species truly have future.'

He says the current rhino programme was developed, based on this philosophy, after careful examination and consideration of all existing alternatives.

From a technical perspective, the plan is in some way similar to one already recommended for rhinos in the Peninsula, he said.

The difference, Dr Murtedza says, lies in the SRWCC's intention to provide a much more comprehensive programme drawing on every available human and technical resource.

'As such, to guarantee the future of the Sabah rhinos, its primary purpose is to create a fully cooperative effort based on sound and tested conservation practice,' he said.

He added that the building of local awareness, expertise, experience and pride concerning the Natural Heritage is an indispensable part of the SRWCC's current endeavour.

"Saving the rhino is the first and most pressing matter at hand, but this programme must remain an integral part of a much broader locally-based plan," he says.

In any case artificial breeding is not the Sabah Committee's priority. "Our priority is to promote natural breeding by getting enough pairs. We don't have plans to go into artificial breeding. If we get enough animals, why, should we?" asked Dr. Murtedza.

The Sabah conservation plan

KOTA KINABALU. — One definite outcome of the heat surrounding the Sumatran rhino issue is that the State Government set up a high-level committee to look into a conservation plan.

That committee is the Sabah Rhino and Wildlife Conservation Committee (SRWCC) — formed two months ago has drawn its perimeters extending beyond rhinos.

It has identified its role as being one of inculcating a sense of public responsibility and national pride towards the conservation of wildlife and its habitat, among others.

Its other roles include:

- to seek ways to protect the rhinos and other endangered wildlife
- to breed rhinos and other endangered wildlife within the State
- to facilitate implementation of conservation programmes and transfer of technical knowledge to or within the State
- to gather relevant data
- to propose appropriate legislation for the protection and conservation of endangered animals
- to raise funds for its activities
- to carry out educational work and 'propaganda' for instructing the public in the best methods to adopt 'such attitudes and principles wherever practicable.'

On the technical front the SRWCC plans to carry out surveys and compile information on existing rhinos, followed by protecting existing conservation areas.

One plan calls for the establishment of a 'strictly protected' rhino centre for breeding and research.

This will have to be complemented by the capture of certain endangered animals outside existing conservation areas, translocation of captured animals to the centre; captive breeding programmes; and research and development.

The Universiti Kebangsaan Malaysia Sabah Campus has been entrusted with the task of gathering relevant technical information and to provide a data base for the project.

Survey

The SRWCC's technical committee head, Dr. Murtedza Mohamad is also Dean of Sciences at the Campus.

Other strategies identified by the Committee are to establish task-forces to do specific projects.

One project is to survey the Tabin Wildlife Reserve for the establishment of a Rhino Centre. The main conservation area is 130,000 ha of which 8,000 ha are to be set aside as the 'core area'. Another 800 ha within the Tabin Reserve is to be fenced in as a 'security zone' for breeding and research purposes.

Also among the SRWCC's plans are to survey potential capture areas; capture and translocate animals to the designated security zone and to ensure the health and welfare of captive animals.

Meanwhile the Committee views as 'urgent' the review of existing laws on conservation, and on the protection of rhinos in particular.

It is no secret that rhinos are high on the poachers' wanted list because of profit accruing from the sale of parts and of the animal supposed to contain medicinal value.

The Committee feels that one solution would be the introduction of heavier penalties, including mandatory jail sentences, for those convicted.

Assistance

Another approach would be to inform timber operators of this conservation effort and seek their cooperation in the location and protection of rhinos known to be within their concessions.

Further, the assistance of the Police, Field Force, Armed Forces, and Forest Rangers, is to be sought in protecting rhinos within their patrol areas.

In addition, outlets for rhino products are to be brought under increased surveillance with the assistance of Customs and Trade and Industry Ministry officials.

But others are sceptical about the effectiveness of such moves given the large physical areas being dealt with and the limited resources available. Needless to say, enforcement, not just on wildlife laws, often leaves a great deal to be desired.

It is meanwhile encouraging news that the State Government has reportedly set aside $3 million to fund the proposed Rhino Conservation programme.

The crux of the matter will now be to ensure that this money is well-spent.

PART TWO TOMORROW

Conservation of Rhino & Wildlife in Sabah
Technical Sub-Committee Meeting
4-5 Nov 1985, Taman Kinabalu

ATTENDENCE

Assoc. Prof. Dr. Murtedza Mohamed - Chairman
En. Lamri Ali
En. Mahedi Andau
Dr. Edwin Bosi
Prof. Dr. Jainudeen Mohd. Razeen
Dr. Ahmad Mustafa Babjee
Dr. Junaidi Payne
Dr. Ridzwan Hashim — Secretary
En. Robert Stuebing
En. Joseph Gasis

INTRODUCTION

On behalf of the Sabah State Government, the Chairman welcomed members and express appreciation for their participation, especially to Prof. Jainudeen and Dr. Ahmad Mustafa.

TERMS OF REFERENCE

The Sub-Commjttee agreed upon the following:

1. To provide technical guidance to the main committee on requirements for the conservation of Rhinos and Wildlife in Sabah.

2. To identify conservation programmes and their objectives, both short and long term.

3. To facilitate implemention of the conservation programmes.

4. To report to the main committee the decisions and recommendations of the Sub-Committee and the progress of any projects undertaken.

PROGRAMME MANAGEMENT

The Sub-Committee agreed upon the following:

1. This Sub-Committee is task-oriented and assigned to carry out a special project of the Sabah State Cabinet. Through the main committee it should be empowered to direct relevant State Government departments and agencies to be involved in and facilitate implementation of projects undertaken. The urgency of the problem at hand requires action to be taken in the most expeditious manner, preferably by providing financial and administrative independence to the project.

2. This project is formulated and implemented on behalf of the Wildlife Section of the Forest Department with their full cooperation. The Wildlife Section will ultimately assume full responsibility at a later stage, perhaps after 5 years, and must be strengthened accordingly in preparation for this transfer of duties.

3. It is recommended that the main committee, upon the completion of the present task, be given a permanent status, perhaps as a Foundation, enabling it to ensure continuity of conservation efforts.

4. The technical aspects of the programme will be managed entirely by this Sub-Committee. International support is welcomed provided it is in line with policies and objectives set by the main committee.

APPROACH AND PRIORITIES

It was decided that the conservation of Rhino in Sabah should be based on promotion of natural breeding within their natural habitat. Danger to existing populations of Rhinos must be reduced both through protection of existing conservation areas and translocation to a protected site.

Specifically, steps to be taken include:

- Surveys/compilation of information on existing Rhinos
- Protection of existing conservation areas
- Establishment of a strictly protected Rhino centre for breeding and research
- Capture of certain endangered animals outside existing conservation areas
- Translocation of captured animals to the protected site
- Captive breeding
- Research and development.

STRATEGIES

The Sub-Committee has identified the following immediate steps to be taken:

1. To gather relevant technical information. UKMS will perform this function and provide a data base for the project.

2. To establish task-forces to carry out specific project functions

3. To survey the Tabin Wildlife Reserve for the establishment of a Rhino Centre. The main Conservation Area is 130,000 ha, of which 8,000 ha are to be selected as a Core Area. Another 800 ha within the Tabin Reserve are to be fenced as a Security Zone for breeding and research purposes. Initially, an area of approximately 2 ha will be fenced along with the establishment ofminimum accomodation and operational facilities.

4. To survey potential capture areas

5. To capture and translocate animals to the designated Security Zone.

6. To ensure the health and welfare of the captive animals.

To protect animals within existing Conservation Areas, the following action is also urgent:

1. Immediately review and revise existing laws pertaining to protection of the Rhinos in particular, and conservation in general. This includes the introduction of heavier penalties for those convicted, such as mandatory jail sentences.

2. Inform companies or individuals carrying out logging activities concerning this conservation effort, and obtain their cooperation in the location and protection of Rhinos known to be within their concessions.

3. Seek the cooperation and assistance from the Police Field Force, Armed Forces, Forest Rangers (both of the Forest Dept. and the Sabah Foundation) in the location and protection of Rhinos within their patrolled areas.

4. Increase surveillence of outlets for illegal Rhino products. This could be accomplished through the cooperation of the enforcement officers of the Customs and Trade Ministry.

MANPOWER REQUIREMENTS

It was agreed that to carry out the initial stages of the project, secondment of various government personnel, as well as the employment of contract staff will be required. Eventually, new posts must be created in the Wildlife Section to replace or absorb the abovementioned short-term personnel. For long-term manpower requirement, see Appendix A.

The following personnel are urgently required:

Project Manager

Category A Officer in charge of the whole project, answerable to this Sub-Committee. He must possess overall knowledge of the local situation,

be senior in command. His duties, among others, will be to assemble and coordinate the staff for the project. It was decided that EN. MAHEDI ANDAU be appointed for this task. Though not full-time, he gave assurances that he would see the project through successfully, with the full-time assistance of three subordinate officers.

Station Personnel

Research Officer/Station Supervisor:

A full-time officer to manage the breeding and research station. His duties will include maintaining security and the welfare of the animals, maintain ongoing research projects, as well as the day to day running of the station. EN. JOSEPH GASIS was appointed this task. It was decided that he should be seconded to this project from his present duties as a Field Officer of the Sabah Foundation.

Other personnel:

Security Guards (2)
Veterinary Assistant (1)
Labourers (2)
Driver (1)

Field Personnel

Field Supervisor:

A full-time officer to organise and carry out surveys, capture and translocation of animals. DR. JUNAIDI PAYNE was identified as the appropriate person for this task. Although presently under contract to World Wildlife Fund (Malaysia), he has agreed to seek apropriate arrangements for his participation.

Other personnel:

Team leaders (2)
Labourers (10)
Drivers (2)

Veterinary Personnel

Project Veterinarian:

A full time contract officer responsible for the health and breeding of the animals. He will be required to attend to the animal from the moment of capture, and throughout their stay at the station. The appointment of this officer is expected to be made in the near future.

Other personnel:

Veterinary Assistant (1)

FINANCIAL REQUIREMENTS

See Appendix B

PHYSICAL REQUIREMENTS

See Appendix C

OPERATIONAL DETAILS

Field Operation

Trapping methods were identified and discussed. Among those which could be considered are:

Stockade (funnel shaped, both nylon net and wooden)
Pitfall trap (slow descent type)
Darting (tranquiliser gun)
Tracking with dogs
Snares (soft rope/leather)

It was also agreed that transportation of captured animals from the

capture site is by airlifting (helicopter and suitable squeeze crate design), road or waterways - depending on location and terrain, and other factors.

Verterinary Role

Apart from station and field duties relating to the health of captured animals, additional responsibilities of the project personnel are as given in Appendix D.

SCHEDULE FOR IMPLEMENTATION

The following is a tentative schedule for implementation of initial stages of the project:

November 1985	-	Visit to Tabin, 5 persons inc. a JKR architect.
December 1985	-	Drawing up of plan for station and prep. of tender document.
	-	Identification of potential personnel
	-	In depth study of capture methods
	-	Call quotations for equipment
January 1986	-	Construction of station
	-	Survey of capture areas
February 1986	-	Mock operation

OTHER MATTERS

1. Correspondence - Letters are to be written by the Chairman of the main committee to following individuals/agencies/organizations:

   Vice- Chancellor, UPM regarding participation of Prof Jainudeen.

   Secretary-General, Ministry of Agriculture regarding participation of Dr. Ahmad Mustafa.

   Conservator of Forests (Sabah) regarding appointment of En. Mahedi Andau as Project Manager, use of Tabin as Rhino Centre and, the cooperation of Forest Rangers.

   Director of Sabah Foundation regarding the secondment of En. Joseph Gasis as Research Officer/Station Supervisor and cooperation of Foundation forest patrol staff.

   Police DiRaja, Armed Forces, Customs, Ministry of Trade regarding cooperation in achieving the goals of the project. In the case of Police DiRaja and Armed Forces, use of some of their facilities/equipment may need to be requested, for example, use of helicopters for airlifting of animals. In the case of Customs and Ministry of Trade, step-up of enforcement and control of illegal export and trade of all jungle products.

   Public Works Department regarding professional assistance in the construction of the Rhino Station.

   Federal Wildlife and Parks Dept., and the IUCN to inform them of the State Government effort and invite their support.

2. Chairman of this Sub-Committee to prepare a brief press statement on the technical aspects for the Chairman of the main committee.

SUMMARY

The following were discussed and require action by the main committee as indicated:

1. For endorsement:

   a) Terms of Reference
   b) Programme Management

2. For approval:

   a) Manpower Requirements
   b) Financial and Physical Requirements

3. For acceptance/agreement:

   a) Approach
   b) Strategies
   c) Schedule of implementation
   d) Legal action, including provisions to permit capture of animals by the technical Sub-Committee or its representatives.

APPENDIX A

LONG-TERM PERSONNEL REQUIREMENT

Station Personnel

Research Officer/Field Supervisor	(1)
Verterinary Assistant	(1)
Security Chief	(1)
Security Guards	(4)
Labourers - fence maintenance	(2)
Labourers - general maintenance incl. a carpenter	(2)
Driver	(1)

Field Personnel

Field Supervisor	(1)
Team leaders - one per team	(3)
Labourers - five per team	(15)
Drivers	(3)

Veterinary Personnel

Veterinarian	(1)
Veterinary Assistant	(1)

PHASE I FINANCIAL REQUIREMENT

Items	Centre	Field	Verterinary
I. Personnel Emolument:			
Officers	36,000	48,000	30,000
Assistants	12,000	12,000	12,000
Security	14,400	-	-
Labourers	14,400	84,000	-
Drivers	7,200	14,400	-
Total YEAR I	84,000	158,400	42,000
YEAR II	88,200	166,320	44,100
Total P.E.	172,200	324,720	86,100
II. Facilities (Basic)			
Fencing	30,000	-	-
Building (6 rooms + store)	50,000	-	-
Elect. & water	10,000	-	-
4WD	40,000	80,000	-
Camping eq.	-	10,000	-
Capture eq.	-	10,000	-
Radio set	8,000	16,000	-
Miscellaneous	10,000	10,000	10,000
	148,000	126,000	10,000

III. Running Cost:

				Tech. Comm.
Vehicle & maintenance	12,000	24,000	-	
Travel	15,000	-	10,000	
Insurance	-	5,000	-	
Bonus for Capture (4/yr)	-	60,000	-	
Reward info. leading to capture @ 3,000	-	12,000	-	
Helicopter	-	25,000	-	
Heavy machineries	-	100,000	-	
Technical Comm. Meetings	-	-	-	24,000
Research & Training	50,000	-	-	
Miscelleneous	7,000	20,000	5,000	
Total YEAR I	84,000	246,000	15,000	24,000
YEAR II	84,000	246,000	15,000	24,000
Total R.C.	168,000	492,000	30,000	48,000
Phase I Sub-total	488,200	942,720	126,100	
Phase I Total	1,605,020			

Financial Particulars

*Account 'Rhino Trust' A/C already opened by Forest Dept. Use this account, main committee is controller (?)

*Financial procedures to be determined by Financial Sub-Committee (?)

APPENDIX C

IMMEDIATE PHYSICAL REQUIREMENTS

Station:

* 2 Units Class C accomodation (supervisors)
* 2 Class D accomodation (Assistant + security chief)
* 9 Class F accomodation
* Garage cum workshop or store
* Generator & generator hse
* Water pump, tank
* Fencing (post & wire) + electrical strand
* 1 (office + Lab)
* 1 Land-cruiser (4WD) + trailer + winches
* Maintenance equipment

Survey, Capture & Translocation

* 3 Landcruisers (4WD, winches, trailer)
* Camping equipment
* Capture equipment
* Radio-communication/set

Vertrinary requirement

* Corral

VETERINARY DETAILS

The following need to be carried out under certain circumstances as specified. Details will be provided.

A. The case when the animal is dead irrespective whether during the survey or during the captivity.

1. Measurements
2. Estimated or natural weight
3. Dentition as an indication of age or ageing
4. External parasites
5. Internal parasites
6. Organs - measurements (weight, length)
7. Skin - preserved in formalin/saline or Bouin's solution, histology.
8. Reproductive organs (special attention)
9. Bones for detail description/mounting
10. Stomach, caecum or the gastro-intestinal tract contents for analysis
11. Ratio foot prints to weight in the male or female

B. The case when the animal is alive

1. Measurements (live weight, body length, height)
2. Blood smears, blood samples or blood profile
3. Fresh faecal samples; parasites and nutrition
4. Internal parasites

C. Special studies : Nutrition and reproduction.

1. Nutrition

i) natural diet
ii) substitute diet
iii) feed analysis
iv) salt lick analysis

2. Reproduction

i) Semen evaluation
ii) Heat cycles
iii) Behaviour during oestrus or mating
iv) Blood or urine hormone profile in male and female
v) Lactation
vi) Gestation, calving intervals or weaning.
vii) Male/female ratio

Telegram: "CHIEFMIN KOTA KINABALU"

Bil. JKM

JABATAN KETUA MENTERI
KOTA KINABALU
SABAH, MALAYSIA

JKPBS (T)/2

29 Oktober, 1985

Dr. John Payne
World Wildlife Fund
c/o Jabatan Hutan
Peti Surat 311
Sandakan, SABAH.

Y.Bhg. Prof/Tuan,

Per: Perlantikan Sebagai Ahli Jawatankuasa Kecil Teknik Projek Pemuliharaan Badak Sumbu Di Sabah

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Dengan hormatnya dimaklumkan bahawa Kerajaan Negeri Sabah akan memulakan satu projek pemuliharaan badak sumbu di negeri ini sebagai usaha untuk mengelakkan dari pupusnya populasi spesies tersebut.

2. Sehubungan dengan itu Jawatankuasa Ad hoc Pemuliharaan Badak Sumbu dan Hidupan Liar Sabah dalam mesyuaratnya pada 25 Oktober 1985, telah bersetuju menubuhkan Jawatankuasa Kecil Teknik yang di Pengerusikan oleh Prof. Madya Dr. Murtedza Mohamed, Dekan Fakulti Sains & Sumber Alam, UKM Kampus Sabah. Dalam menjalankan tanggungjawab tersebut, beliau telah mencadangkan agar Y.Bhg./tuan dipilih menganggotai jawatankuasa kecil ini, iaitu berdasarkan kepada pengalaman Y.Bhg. Prof/tuan yang luas dalam bidang yang berkaitan.

3. Oleh yang demikian saya dengan sukacita melantik Y.Bhg. Prof/tuan menganggotai Jawatankuasa Kecil berkenaan dan mengalu-alukan sumbangan Y.Bhg. Prof/tuan ke arah menjayakan projek di atas.

Sekian, terima kasih.

Yang benar,

PUAN ARIAH TUNKU AHMAD
(Menteri Kebajikan Masyarakat dan perpaduan Negara)
Pengerusi Jawatankuasa Ad hoc
Pemuliharaan Badak Sumbu dan Hidupan Liar Sabah.

P.K. 20,000L-48/0054-85

s.k: - YB. En. Tan Kit Sher
(Menteri Pembangunan Sumber dan Tenaga Rakyat)
Pengerusi Bersama Jawatankuasa Ad hoc
Pemuliharaan Badak Sumbu dan Hidupan Liar Sabah.

- Prof. Madya Dr. Murtedza Mohamed
(Dekan Fakulti Sains & Sumber Alam, UKMS)
Pengerusi
Jawatankuasa Kecil Teknik
Projek Pemuliharaan Badak Sumbu dan Hidupan Liar Sabah.

Debate on fate of rhinos today

Daily Express 22/11/85

KOTA KINABALU, Thurs. — A public forum on the Sumatran rhinoceros here tomorrow will discuss the Government-sponsored task force's plan for conservation and breeding of the rare species — which is the subject of an ongoing controversy.

The forum sponsored by the Sabah Society will be held at 2.30 pm at the Yayasan Sabah mini theatre at the Yayasan Sabah Complex in Likas.

The meeting will be chaired by Tan Sri Thomas Jayasuriya and the speakers include Dr. Murtedza Mohamed, Dean of sciences at the UKM Sabah Campus.

Dr. Murtedza also chairs the technical subcommittee of the State Rhino and Wildlife.

Other speakers are Encik Louis Ratnam of the Federal Department of Wildlife and National Parks, Dr. Junaidi Payne of the World Wildlife Fund Malaysia and Dr. Thomas J. Fooze of the US-based Sumatran Rhino Trust.

The Sabah Society said today the forum would offer the public a chance to hear relevant background papers by authorities on different aspects of rhino conservation and there will also be a question and answer session.

Dr Murtedza... one of the speakers.

The rhino issue took the limelight earlier this year following a proposal to support conservation efforts in the wild and to try and capture isolated animals for captive breeding at Sepilok in Sabah and in selected American zoos.

The State Government announced in October that the animals would not be 'exported' for captive breeding overseas and announced the establishment of a committee to oversee the implementation of a local-based initiative.

The task force's brief is believed to include not only attempts at captive breeding of rhinos but also recommendations for conserving other wildlife in Sabah.

Sabah's rhinos belong to the Sumatran, or Asian two-horned species which is found also in Sumatra and the Peninsula, but is everywhere threatened by hunting, logging and land development.

Protect

Tomorrow's forum will include a Papar by Dr. Thomas Foose of the American Association for Zoological Parks and Aquariums (AAZPA) in helping conserve endangered species, and on international interest in the conservation of the Sumatran rhino.

In the Peninsula, the Federal Department of Wildlife and National Parks has already acquired two Sumatran rhinos which are now held in the Malacca Zoo. Details of this programme will be given in paper by Encik Mohd. Khan Momin Khan, Director General of the Wildlife Department.

In Sabah, attempts to protect rhinos from poachers and to develop Wildlife Reserves for them are the responsibility of the Forest Department Wildlife Section.

Dr. Junaidi Payne, who works for World Wildlife Fund Malaysia has been involved with rhi programme for several years.

His paper will review what is presently known of the status of rhinos in Sabah.

The other paper by Dr. Murtedza will outline plans for further survey work, live capture of animals and the development of a breeding centre in the Tabin Wildlife Reserve.

It is also expected to touch on the need for revision of the wildlife laws and the need to seek full involvement of local expertise in a project of this nature.

KOTA KINABALU, Tues.

The recently-formed high-level committee on the Sumatran Rhinoceros will recommend to the Government the setting up of a strictly protected rhino centre in the Tabin Wildlife Reserve for breeding and research efforts.

The committee which is jointly chaired by two State Ministers said in a statement today that a team of local experts would visit the site this month to study the area more closely.

The committee said that it had identified several matters for immediate attention and among them are:

- to compile comprehensive information on the numbers and distribution of the rhinoceros in Sabah
- to recommend to the authority concerned that existing conservation areas be more effectively protected
- to translocate certain threatened animals outside the existing conservation areas into the protected area
- to allow captured animals to breed naturally, although artificial breeding may be investigated at a later stage.

The ad-hoc committee is jointly chaired by Puan Ariah Tengku Ahmad and Encik Tan Kit Shee, Parliamentary Secretary to the Minister of Social Welfare and National Unity and Encik Tan Ik Minister of Manpower and Environmental Development.

Four subcommittees have been formed: technical, legal, financial and public relations.

The statement said research on rhinos would continue and task forces would be established to carry out specific functions.

Station personnel, capture teams and a veterinary group will be employed on a short-term basis the statement said. It added that the finances were to come from the Government and the public.

The committee has also set up a secretariat to coordinate various functions. Concerned citizens who wished to contribute ideas or get more information were urged to contact the executive secretary at the Office of the Sabah Rhino and Wildlife Conservation, Block J, No 25, Expo Likas Tel: 219964 until Nov 26. Thereafter the phone number will be 219802 and 219805.

Daily Express 20/11/85

Rhino centre proposal

US rhino group to shift focus away

KOTA KINABALU, Sun. — The US-based Sumatran Rhino Trust will be redirecting its efforts to captive breeding efforts in the Peninsula and in Indonesia, following the Sabah stand on the issue.

The chairman of the Sumatran Rhino Trust, Dr Warren Thomas, set up by the American Association of Zoological Parks and Aquarium told the *Daily Express* today that 'until recent developments' the group had been concentrating on Sabah because of the danger the animals faced here.

'Our energies will now be redirected to where we think it can do the most good. Although we stand ready to help, it has to be a cooperative thing,' he said in response to a question whether the Trust's Singapore Proposals would be carried out with Sabah involvement.

The Singapore Proposals, are the rsult of an international meeting held in Singapore last year, and which call for the capture of several pairs of rhinos, and for some of the animals to be translocated to US centres for captive breeding, with simultaneous breeding facilities in the Peninsula and Sabah.

Dr. Warren Thomas

The Sabah Government has since decided that it will not allow any Sumatran rhino individual to be taken out of the State and that any captive breeding project should be undertaken here.

The State Government also set up a high-level committee headed by two State Ministers to carry out a conservative programme.

Yesterday Dr. Thomas, accompanied by American officials connected to the rhino project and the Director General of the Federal Department of Wildlife Encik Mohd Khan bin Momin Khan met with members of the Sabah Rhino and Wildlife Conservation Committee's technical officials. The technical committee is led by UKM Sabah Campus Dean of Sciences Dr Murtedza Mohamad.

On Friday at a Sabah Society Forum on the Sumatran rhino, Dr. Murtedza reiterated the Government's stand that Malaysians were capable of carrying out the task, although outside help would be welcome.

Dr. Thomas said today that Sabah was only one of three regions identified for the Aazpa captive breeding plan and that the programme was thus far proceeding on schedule in the Peninsula and Indonesia.

'At first this was to be an Aazpa-Sabah cooperative effort but now it will be mostly a Sabah effort,' he said.

He said the Americans came to Sabah not with an adversarial or hardsell approach but just to clear any misunderstanding.

Among those in the American group were Dr. Thomas Foose, the conservation co-ordinator for Aazpa, and Mr Tony Parkinson, a catcher [illegible]

From Page 1

Mr Parkinson has scored numerous successes with catching rare animal species and in carrying out their translocation. Among the animals he has caught are the Arabian Oryx, Black Rhino, the Tamarau and Grevy Zebra.

Dr. Thomas meanwhile said, the group was now on its way to Indonesia for discussions with the Indonesian Government.

He said things looked promising with the Peninsular and Indonesia.

'As for Sabah, where things stand now, Sabah will get in touch with us if they need us and must state in what aspects they need our assistance,' he added.

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Daily Express

Head of rhino technical panel:

Outside help welcome

Yesterday's Sumatran Rhino forum

KOTA KINABALU, Fri.
The State Government welcomes assistance to its Sumatran rhino programme from any outside group and at no time did it reject any outside offer of technical assistance, it was stated today.

Dr Murtedza Mohamad, head of the technical committee of the Sabah Rhino and Wildlife Conservation Committee (SRWCC) told a forum on the Sumatran rhino issue that the committee saw the Sumatran rhino as the most urgent aspect of a much wider issue that of Sabah's wildlife heritage conservation.

The forum held at the Sabah Foundation mini-theatre here was attended by some 200 people and was addressed by four speakers.

The four are Dr Junaidi Payne of the Yayasan Sabah, Encik Mohd Khan Momin Khan director general of the Federal Department of Wildlife, and Dr Thomas Foose, conservation coordinator of the American Association of Zoological Parks and Aquariums. Tan Sri Thomas Jayasuriya chaired the forum.

In his presentation, Dr Murtedza stressed that the emphasis of the Sabah Government committee on rhinos was that technology on the subject be transferred here.

The SRWCC, he said, had identified a programme for ensuring the continued existence of endangered wildlife and added that it was imperative the committee at all times keep the public interest at heart.

Wildlife should not be transformed into private hobbies. It is a public possessions which is held in trust.

It is crucial to promote the involvement of local people in the planning and implementation of any conservation project to ensure its long term success, he said.

Today's forum is part of a series of discussions that started from an AAZPA proposal to captive breed Sumatran rhinos, withsome animals being removed to the United States for the purpose.

Dr Murtedza said the SRWCC effort was similar to the one in the Peninsula which has led to the capture of two Sumatran rhinos.

He added that the only difference was that the Sabah committee intended to draw up a more comprehensive plan 'based on sound and tested practices'.

He said the committee was confident that Malaysians are capable of carrying out the task and that sincere contributions of interested foreigners would be welcomed.

"Saying the rhino is the first and most pressing matter at hand but it must be an integral part of a much broader locally based plan," he said.

Often sought too late...

KOTA KINABALU, Fri.
Captive propagation can assist in the conservation of dangered species but it is ...ten invoked too late, an American expert told the Sumatran Rhino Forum organised by the Sabah Society here today.

Dr Thomas Foose, conservation coordinator of the American Association of Zoological Parks and Aquariums (AAZPA) told the forum that captive propagation as a component of conservation was vital.

He also said genetic variations were very important to wild populations and said that the smaller the populations of the endangered species the faster the genes were lost.

He cited the examples of several endangered species in the United States and said the example of the California Condor of which only 26 were left now. The California Condor is the largest flying bird in the US.

Aim

He agreed that the best place to preserve wildlife was in their natural habitat but pointed out that this was not always possible.

"Zoos are becoming an increasingly important component of conservation," he said.

He added that the aim of the AAZPA captive breeding programme was not to replace wild populations but to reinforce them. He pointed out that future conservation efforts would involve captive and wild populations.

One of the advantages he cited for captive propagation was that this method would enable genetic management of the animal and that ideally 20 pairs of the animals should go into the gene pool in order be able to manage them genetically.

He also enumerated embryo transfer successes in the US and said successes had been achieved in reintroducing captive-bred species to the wild, thus disproving critics.

He also said that there would be no immediate attempt to introduce embryo transfer technology to the Sumatran rhino as this technology needed to be perfected. Efforts in this direction were already underway with other species of rhinos, he said.

Strategy

According to his estimate there were about 700 Sumatran rhino individuals left in the world although the exact figure is hard to determine.

He said representatives of American Zoos, the International Union for Conservation, the Malaysian and Sabah Wildlife departments and other experts met in Singapore last year and decided that one strategy for conservation of the Sumatran rhino would be to 'cooperatively manage' the animal with IUCN supervision.

He assured that exhibition of the animal was no longer of prime concern in the capturing of wild animals, in an apparent reference to criticism that the Americans were partly interested in the animal for its 'commercial value' accruing from exhibition.

He also said the Sumatran Rhino Trust's main concern was the conservation of the animal.

The difficult policing task: Forest Dept

KOTA KINABALU, Fri.
Studies show that the Silabukan area in Sabah has the largest concentration of Sumatran rhinos, although in terms of total population Sabah probably has about 30 Sumatran rhino individuals.

Dr Junaidi Payne of the Forestry Department told today's forum on the Sumatran Rhino that the Forest Department did have a problem trying to watch over reserves to prevent poaching.

He said for thousands of years the animal has been persecuted for its medicinal properties from the horns and other parts of the body.

He also said that poaching claimed roughly two animals per year over the last five years.

Also speaking at the same forum was Encik Mohd Khan bin Momin Khan Director General of the Federal Wildlife Department who described his department's experiences in capturing wild elephants, *seledang* and more recently two individuals of the Sumatran rhino.

He disclosed that the rhino conservation effort in the Peninsular began in 1973. The two rhinos now in captivity are held at the Melaka zoo. One is an adult *(Jeram)* caught in April last year and the other *(Melintang)* a baby individual was caught this year.

He said both were doing well in captivity.

Ideas for popular version -

THE DISTRIBUTION AND STATUS OF THE ASIAN TWO-HORNED RHINOCEROS (Dicerorhinus sumatrensis) IN SABAH

(1)

(2) Until the 1960's, most of central and eastern Sabah was covered in essentially undisturbed tall, evergreen forest. This forest existed in a vast, continuous tract amounting to over 4 million hectares, providing adequate habitat for large breeding populations of the whole range of Sabah's tall forest fauna. As a rule, such large areas of habitat are adequate to conserve all fauna, and human interference alone is unlikely to completely wipe out any species.

(3) The Asian Two-horned Rhinoceros is an exception. This Rhino, the smallest of the world's five species, was once widespread throughout much of Asia, but is now confined to several separate regions of Sumatra, Borneo and Peninsular Malaysia.

(4) Persecution over many years, probably centuries, for its supposed medicinal properties has evidently led to a gradual and relentless decline. For centuries, at least, trade between Borneo and China, and other parts of South-east Asia, has included the export from Borneo of gold, plant products, edible birds' nests - and parts of Rhinos, notably the horns. Written records, although few and inadequate, indicate that while at least several tens of Rhinos were being killed annually in Sarawak in the 1920's, the species had become almost if not completely extinct there by the 1940's.

(5) Sepilok Forest Reserve is the last remaining piece of protected forest on the Sandakan peninsula. The last Rhino recorded from this region was shot in the early 1900's. Only twenty years before, in 1886, it was recorded that in the Sandakan area, Rhinos were more common than Elephants, and that "the tracks of one or two may usually be seen in the course of a walk in the low districts". It was even noted that "Rhinoceroses have more than once strayed inside the suburban line of Sandakan itself; on one occasion one went into a garden in the outskirts of the town and ate some melons; on another one managed to get into a chicken house on the Beatrice Estate ...; on still another occasion, one came in from the forest and trotted past Mr Pryer's house into town in the middle of the night." Contemporary newspapers regularly reported the availability of Rhino horn for sale (at around $30 per kati) in Sandakan town.

(6) The Asian Two-horned Rhinoceros may be especially vulnerable to extinction for several reasons. Interval between births is believed to be three years or more, more than almost any other mammal species. There is evidence that females and young Rhinos tend to be obtained by poachers more often than adult males. There is also evidence that distribution and density of Rhinos is related to the availability of natural mineral sources, which are

absent from many regions of otherwise suitable habitat. Finally, 10,000-30,000 year old sub-fossil remains of Rhinos from caves in Sarawak are significantly larger than present-day Rhinos, indicating a rapid evolution to smaller size, possibly in response to changing climate or vegetation. Despite all these factors, it remains clear that Rhinos have disappeared from many parts of Sabah, as elsewhere, essentially because of excessive hunting by Man.

(7) Until recent years, most of Sabah's native human population was concentrated in the plains and hill ranges of western Sabah. The last reports of Rhinos in western Sabah date from the early 1960's, and even these are unreliable. It is only in the past two decades that people have made significant inroads into the central and eastern regions.

(8) In 1979, the Sabah Forest Department, with technical assistance from World Wildlife Fund Malaysia, started a two-year "Faunal Survey of Sabah". This Survey showed that, based on a combination of field surveys together with interviews with many people working in forested areas, small numbers of Rhinos existed in the eastern parts of Sabah. No definite evidence of the existence of the species was found in the western half of the state. The Survey report, published in early 1982, cautiously stated that there was evidence of between 15 and 30 Rhinos in Sabah.

(9) Further survey work in 1982-83, again based on field surveys and interviews with people living or working in potential Rhino country, added more data, but came up with essentially the same conclusion. A scattered and diminishing Rhino population occurs in eastern Sabah, but no evidence from the western half. It became clear that although several tens of Rhinos still exist, many of those individuals are becoming isolated from each other by agricultural development. Continued reports, rarely proven but usually reliable, show that poaching continues. The high price of Rhino products, coupled with the low risk of hunters being caught and successfully prosecuted, means that up to this day, poaching is a worthwhile occupation for anyone not concerned with the conservation of the species. Wherever forest has been selectivly logged for timber or cleared for agriculture, there have, of course, been people, and reports of the presence of Rhinos reach the Sabah Forest Department in one way or another.

(10) Only one large block of essentially undisturbed forest remains, in the middle of Sabah. Although this has not been adequately surveyed for Rhinos, available evidence suggests that small numbers of Rhinos exist in parts of this region, but that there is no single, large population. Poaching is not the only problem associated with conservation of the Rhino in Sabah.

(11) It so happens that the region believed to contain the highest numbers of Rhinos more-or-less coincides with the most extensive region of Sabah allocated for permanent agriculture.

Areas which five years ago were covered with logged over forest are being converted to plantation crops.

(12) The extent of permanent Forest Reserves is now fixed by legislation passed in 1984.

(13) By 1982, it was clear that the area with the highest known density of Rhinos, yet not irrevocably allocated for agriculture, was the Silabukan region, north-east of Lahad Datu. A large proportion of the area was within Sabah Foundation's logging concession. Concern was expressed, rightly, that selective logging might hasten the extinction of the species. Logging activities certainly make life easier for poachers. The question remained, however, would selective logging irrevocably degrade the habitat for Rhinos, to the extent that food supplies were reduced or breeding would cease?

(14) Surveys conducted by Sabah Forest Department and World Wildlife Fund Malaysia personnel in 1982-83 indicated that, while Rhinos tend to move out of forest undergoing logging, they will return some time afterwards, as the forest starts to regenerate. Interviews with many people working or hunting in extensive areas of logged-over forest resulted in several independent records of pairs of adult and young Rhinos seen in forest heavily affected by past logging.

(15) Observations of feeding behaviour of Rhinos in such forest showed that they feed mainly on regrowth plant species, such as Macaranga.

(16) Various evidence, including inspection of Rhino dung, in addition to footprints and verbal reports, made it clear that Rhinos in Sabah can live and breed in heavily-disturbed forest. The problem centres on poaching, not logging. The Forest Department put strong recommendations to government that the Silabukan region be gazetted as some form of protected area, for conservation of both the Rhinoceros and Elephant.

(17) In March 1984, about 122,000 hectares were gazetted as Tabin Wildlife Reserve under Forest legislation, primarily for protection of the Rhinoceros. A smaller Reserve, Kulamba, to the north of Tabin is not important as a Rhino conservation area.

(18) Tabin is the name of the largest river running through the middle of the Reserve. Tabin has the potential to be a fine Rhino reserve. There is adequate habitat to support at least many tens of Rhinos.

(19) There are at least five natural mineral sources, believed to be essential for pregnant and infant Rhinos.

(20) Three are mud volcanoes, which can be seen from the air when flying over Tabin.

(21) A Reserve headquarters has yet to be established, although a site on the western boundary has been proposed for this function.

(22) The Game Branch of the Forest Department has many duties, and is able to provide only partial protection for Rhinos from the vast network of forest roads in Sabah.

(23) Poaching of Rhinos occurs wherever there are Rhinos, in Africa as well as in Asia. In all cases, guard forces can provide only partial protection. Various measures can be taken to ensure survival of the Rhinoceros in Sabah in the long term.

(24) Undoubtedly, the best method is to instil the wish to conserve within our society, especially through children. But this is a long term aim, and totally ineffective as a short-term means of saving isolated and doomed Rhinos.

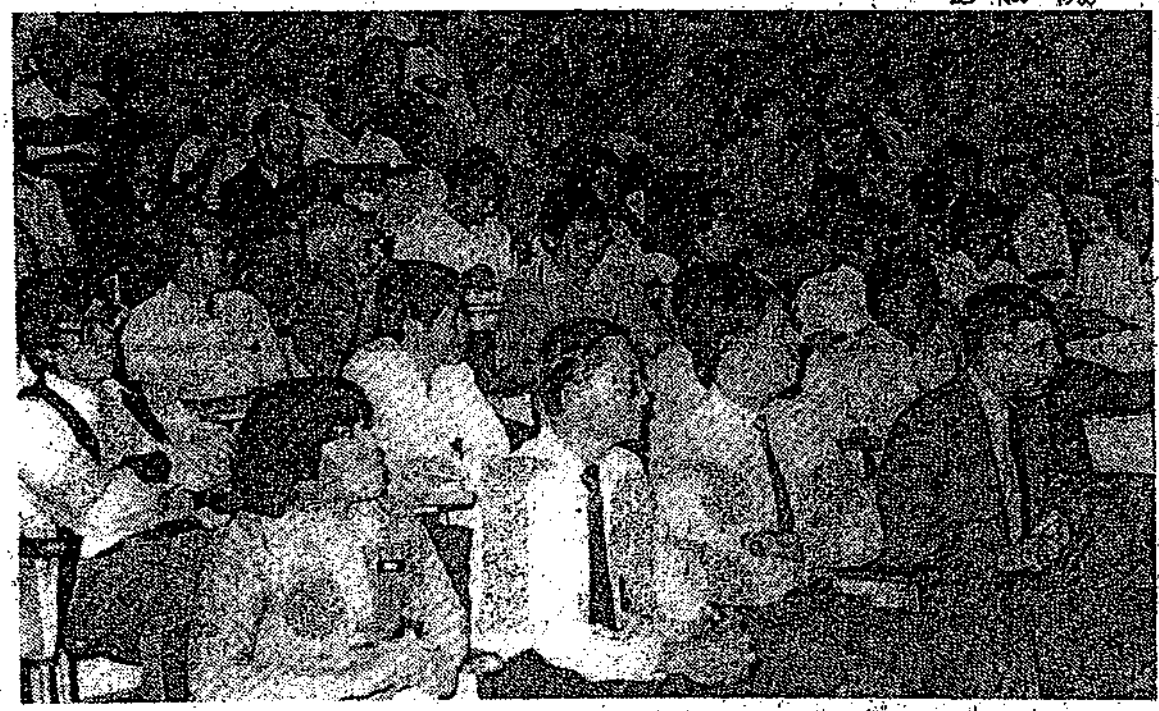
Replace with Sabah project, legislation, publicity, captive breeding.

(25) Results could also be achieved by introducing much tougher penalties for possession of Rhino products, in combination with an increased guard force. Such a strategy has been in force for some years to limit availability of illegal drugs but, as we are well aware, this is only partially successful.

(26) As time goes one, and forest habitat is lost to agriculture, Rhinos are killed. The idea of capturing those Rhinos living in isolated patches of unprotected forest, for translocation to protected areas or for captive breeding under managed conditions, was raised several years ago. It is a major purpose of this meeting today, to discuss ways in which this might be done most successfully.

Presented at the
Open Forum on Rhino Conservation
Organised by Sabah Society
Kota Kinabalu 22 November 1985

DAILY EXPRESS, Saturday, 2
23 Nov 1985



ABOVE: A section of the participants at yesterday's forum.

LEFT: A The panel of speakers (from left) Dr. Junaidi, Encik Mohd. Khan, Tan Sri Thomas Jayasuriya (chairman of the session), Dr. Tom Fogse and Dr. Muntoza.

Among those who attended the forum were Government officials, heads of voluntary organisations, Sabah Society members and members of the public.

SABAH SOCIETY
P.O. BOX 10547
88806 KOTA KINABALU
SABAH, MALAYSIA

SABAH SOCIETY NEWSLETTER NO. 18 - OCTOBER/NOVEMBER 1985

Due to certain unforeseen circumstances the present newsletter has been slightly delayed.

However, a few exciting news .....

i) The controversial rhino issue is still being debated and the Society has not made any stand to date, on the proposed **"captive breeding project"**. So why not come and participate in the **RHINO OPEN FORUM,** (which was previously cancelled) at the **MINI THEATRE** of **YAYASAN SABAH** on 22nd Nov. 1985 at 2.30 p.m.

Let us listen and discuss not only with the representative of the American Association of Zoological Parks and Aquariums (AAZPA) but also those from Games Warden Department of Peninsular Malaysia, and may be the views and clarification from the"Sabah state-level Sumatran Rhino Technical Committee" and "Save the Rhinos Committee".

ii) The highlight of the Society's activity will be its 25th Anniversary Celebration Yes its our **SILVER JUBILEE DINNER** and it will be held on 21st November'85 at Tanjung Aru Beach Hotel. Read on for further detail...

APOLOGY

"Firstly, the Committee wishes to apologise for the inconvenience caused when the Rhino open forum,which was scheduled to take place on 21st September 1985,was cancelled.

CHANGE OF ADDRESS

With effect from 1st October, 1985 the Society's new address is :

Beberapa masalah yang tidak dapat dielak telah dihadapi dan melambatkan pengeluaran surat berita ini.

Walaubagaimanapun, diantara berita yang menarik...

i) isu badak sumbu Sumatra **(Dicerorhinus Sumatrensis)**yang masih dipertikaikan iaitu samada diselamatkan dalam alam keadaan semulajadi mereka atau pembiakan secara terpelihara/berlindung akan dibincangkan oleh khalayak ramai dalam satu **forum terbuka di MINI TEATER YAYASAN SABAH** pada 22 Nov'1985 jam 2.30 petang.

Adalah diharap ahli ahli pertubuhan ini akan menyertai menjayakan forum ini dan turut berbincang dengan wakil American Association of Zoological Parks and Aquarium (AAZPA) serta mendengar penerangan lanjut pendirian kerajaan melalui Jawatankuasa Teknik menyelamat Badak Sumbu diperingkat Negeri. Jawatankuasa Menyelamat Badak Sumbu juga dijangka akan hadir.

ii) Puncak kegiatan Pertubuhan ini ialah perayaan menyambut ulang tahunnya yang ke-25 iaitu Majlis **MAKAN MALAM JUBILEE PERAK** yang akan berlangsung di Tanjung Aru Beach Hotel pada 21 November '85. Sila baca untuk butiran selanjutnya.....

MAAF

Terlebih dahulu Jawatankuasa Pertubuhan memohon maaf kerana pembatalan forum terbuka yang dirancangkan pada 21hb September 1985.

ALAMAT BARU

Mulai 1hb Oktober 1985, alamat Pertubuhan ialah :

SABAH SOCIETY/PERTUBUHAN SABAH
P.O. BOX 10547
88806 KOTA KINABALU

SABAH SOCIETY'S 25th ANNIVERSARY CELEBRATION

To celebrate the Society's Silver Jubilee a **DINNER** will be held at **TANJUNG ARU BEACH HOTEL** on 21st NOVEMBER 1985.

MAIN GUESTS

The TYT of Sabah shall be the Guest of Honour.

The Chief Minister, YB Datuk Pairin Joseph Kitingan, who was a Past President of the Society might also join us for the celebration.

Dr. Salleh Mohd Noh, Director General of Forest Research Institute and President of Malaysian Nature Society shall deliver the Keynote Address.

ENTERTAINMENT

A musical show and entertainment will be performed by a cultural group from Tenom.

Certainly this is a change from the usual Kota Kinabalu Cultural Group Performance.

TICKETS

Each ticket costs $30/- is obtainable from the President and Treasurer. Please contact the officials concerned directly if you are interested to attend the function and the number of guests you would bring along.

Also you are requested to fill in the form at the last page if you are attending. Just in case we cannot send you the tickets, due to time-factor (especially the possibility of postal delay) please get your tickets at the entrance of the Banquet Hall.

Final date for confirmation is **18th November, 1985.**

CONTACT NUMBERS :

President : Dr. Dingley (House) 25064
(Office) 54911

Treasurer : Mr. C.L. Chio (House) 223448
(Office)221391

Secretary : Zahra Yaacob (House) 31909
(Office)32607

MAJLIS MERAYAKAN ULANG TAHUN PERTUBUHAN KE 25

Untuk menyambut Jublee Perak Pertubuhan (Ulang tahun ke 25) satu majlis makan malam akan di-adakan di **TANJUNG ARU BEACH HOTEL** pada 21hb November 1985.

TAMU KHAS

TYT Yang diPertua Negeri Sabah adalah tetamu undangan pada malam tersebut.
Ketua Menteri Sabah YB Datuk Pairin Joseph Kitingan, yang juga adalah bekas Presiden Pertubuhan ini mungkin akan turut hadir menyerikan majlis ini..

Sementara itu, Dr. Salleh Mohd Noh, Ketua Pengarah Institute Penyelidikan Perhutanan dan juga Presiden Persatuan Alam Malaysia akan menyampaikan Pidatu utama di malam tersebut.

HIBURAN

Satu pertunjukan kebudayaan akan dipersembahkan oleh Kebudayaan oleh Kumpulan Kebudayaan dari Tenom.

Bertukar selera-lah kita dengan hiburan dari kumpulan yang datang dari luar Kota Kinabalu.

TIKET

Tiap tiap tiket berharga $30/- dan boleh di-perolehi dari Presiden dan Bendahari. Sila hubungi mereka sekiranya anda minat menghadiri majlis tersebut serta jumlah tamu yang hendak dibawa.

Anda juga dikehendaki mengisi borang dihalaman terakhir sekiranya berminat menjayakan malam tersebut. Sekiranya tiket tidak diterima (kerana mungkin kelambatan Jabatan Pos) maka tiket tersebut bolehlah diperolehi di pintu masuk dewan makan.

Tarikh terakhir untuk mempastikan kehadiran tuan/puan ialah 18 November 1985.

SILA HUBUNGI :

Presiden : Dr. Dingley (Rumah) 25064
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OPEN FORUM - on the Rhino Conservation

Sabah Society will be holding an open forum on the campaign to save the Sumatran Rhinoceros.

The forum will feature 'eminent authorities' who will speak on breeding the endangered species in the wild and in captivity, and with reference to the various proposals put forward to improve the animal's chances.

As members are well aware, so far the Society had not made any firm stand on the issue. However we do hope everyone would get a clearer idea on the relevant issue.

Time will be allocated at the forum for comments and views on this controversial subject.

Come and make the open forum a success.

FORUM TERBUKA mengenai pemeliharaan Badak Sumbu

Pertubuhan Sabah akan mengadakan forum terbuka mengenai kempen menyelamatkan badak sumbu Sumatra yang masih terdapat di Sabah.

Forum ini akan mengemukakan beberapa 'ahli terkemuka' yang akan memberi pendapat mengenai pembiakan binatang liar (yang sedang menghadapi masalah kemungkinan terhapus dari muka bumi ini) samada dalam alam semulajadinya atau pembiakan secara pemeliharaan. Hujah-hujah yang diberi adalah berasaskan rujukan beberapa cadangan yang telah diketarakan bagi mempastikan peluang maxima menyelamat badak sumbu dari terhapus.

Ahli-ahli tentu sedar bahawa sehingga ini Pertubuhan belum membuat pendirian tegas tentang isu badak sumbu, walaubagaimanapun adalah diharap khalayak umum akan didedahkan kepada penerangan lanjut mengenai isu isu yang berkaitan.

Masa akan diperuntukkan di forum ini untuk membincang hujah-hujah yang dikemukakan.

Marilah kita jayakan forum terbuka ini.

TEMPAT/venue : **MINI THEATRE YAYASAN SABAH**

TARIKH/date : **22 November, 1985**

JAM/time : **2.30 petang**

SABAH SOCIETY JOURNAL

The latest issue of Sabah Society Journal (Vol.7 No.4, 1984) is now ready and being circulated. It takes quite sometimes to deliver to most of you members, due to the recent implementation of the post code systems, which affects the addresses especially those using P.O. Box and Locked Bag numbers.

Again another apology.

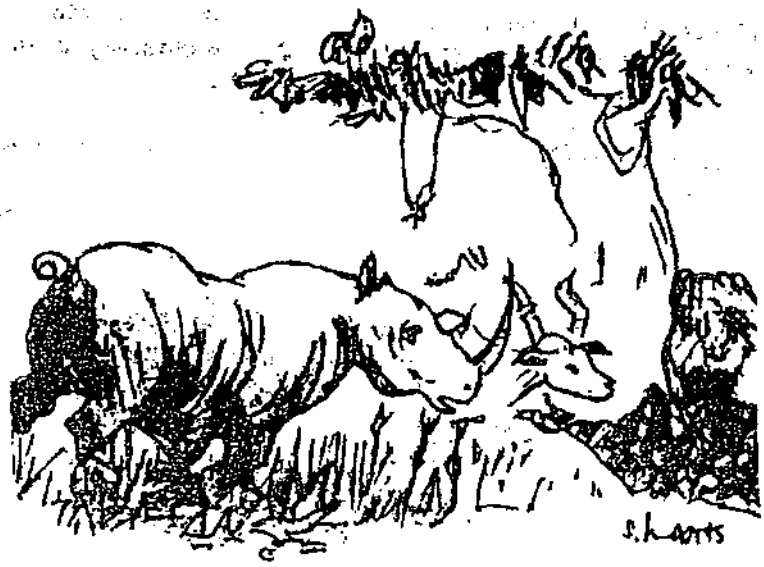
Please inform the Secretary immediately for any change of your present address to prevent any delays of future postal deliveries.

JERNAL PERTUBUHAN SABAH

Terbitan terkini Jernal Pertubuhan Sabah (Jilid 7 No.4, 1984) telah pun siap dicetak dan sedang dihantar kepada ahli-ahli semua. Kelambatan mengedar jernal ini ialah kerana ubahsuai alamat (terutama yang mengguna peti surat dan beg berkunci) dengan perlaksanaan sistem poskod.

Maaf sekali lagi ya .....

Sila beritahu Setiausaha dengan segera sekiranya ada pertukaran alamat anda supaya memudahkan penghantaran berita dimasa akan datang.



"Believe me, after a hard day in the jungle, it's a pleasure being shot by one of those scientists with a tranquilizer gun."

Taken From: What's So Funny About Science?
By: Sidney Harris (William Kaufmann, Inc)

REPORT

Talk entitled : **THE ETHNOGRAPHY OF HABITAT IN SOUTHEAST ASIA WITH PARTICULAR REFERENCE TO BORNEO**

Speaker : DATUK LIM CHONG KEAT,
Project Director, Southeast Asian Cultural Research Programme,
Institute of Southeast Asia Studies.

Venue and Date : Multi Purpose Room, State Library
17th OCTOBER, 1985

.....

This was a very enlightening and interesting talk (accompanied by an equally impressive slide presentation) given by one of the eminent personalities in the architectural field in Southeast Asia. Certainly, this talk was a change from the usual subject familiar to the members of the society i.e. on the life and natural sciences of Sabah and the surrounding areas. Unfortunately only 16 interested persons turned up for the talk.

Datuk Lim introduced the topic by proposing what probably constitute early Southeast Asia i.e. to him it is the area or region that falls within the "Sunda Girdle". New Guinea is excluded.

By studying the structure of ancient habitats of the various countries in the region, based on ethnographic observation and facts, he pointed out that there are many architectural similarities. Comparison of slides of the existing architectural structure and what remains there are of past structures to those taken from old pictures from reliable sources (as some of these structures no longer exists) was also made.

He went on to compare the various slides of long houses in Laos, Thailand, Indonesia, the Philippines as well as Borneo. In doing so he tried to trace the flow of human migration from Mainland Asia and which possibly accounted for similarities of houses-structure and later on, even their costumes. For instance he showed that granaries formed part of the habitats environment and these granaries are built high on stilts with round base to prevent rodents from going to the granaries. Such a structure is commonly shared between these Southeast Asia communities.

Meanwhile, as societies in these region developed and progressed from a pretribal to tribal and later on forming feudal groups and traders, so too changes occured in the housing structures which clearly depicted the rise and existence of various classes in the societies. Here he attracted our attention to the various forms of roof:- structures which could denote one's status in the society.

/2

He also showed the habitat of the sea-faring communities who emphasised more in the challenge of boat building and consequently little attention was focused on house-construction.

As for the architecture of Bugis houses he pointed out that they are better spread out in the region, as they are of a sea-faring trading group.

Later, he gave a comparative view of selected tribes from Indonesia, Philippines, Thailand and Laos and showed the similarities in their dressings and costumes. Not to forget, the almost similar manner of dressing of these people to the Rungus of Sabah. How come?

Was it due to the flow of migration by the people of Mainland (Southeast) Asia to the "Sunda Girdle" which could point out to their common root of origin?

Bringing us nearer to home-scene, i.e. on the Rungus long houses in Kudat, he showed the present condition of these houses and the possibility of complete disappearance of these houses in the near future. Some of the existing houses there are in precarious stage. One particular house which he visited has about one-third of its building ruined. We must try to preserve the traditional housing structures. He is of the opinion that if a long house is to look traditional, it must not have corrugated roofs and plywood.

He concluded this talk by urging Sabah Society members to realise the need of preserving some of the traditional houses of the indigenous races.

UNION INTERNATIONALE POUR LA CONSERVATION DE LA NATURE ET DE SES RESSOURCES
INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES

COMMISSION DE LA SAUVEGARDE DES ESPÈCES - SPECIES SURVIVAL COMMISSION

To: See Distribution List

From: Robert F. Scott
Executive Officer, SSC

Date: 7 October 1985

Subject: Draft Report of N. van Strien, IUCN Consultant, on Implementing "Singapore Proposals" for Sumatran Rhino Conservation

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Attached is a copy of the draft report of the above consultant describing the findings of a preliminary mission, funded by IUCN, to examine ways of implementing the "Singapore Proposals".

We invite all recipients to comment in two ways:-

1) On the concepts and proposals in general, and

2) Explicitely, on substantive action proposals, problems identified and solutions suggested.

Please note that this is a draft report from a consultant to IUCN. Any future actions by IUCN will consider both the report and the comments received from interested parties.

****

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PRO'S AND CON'S IN THE PROPOSAL FOR AN INTERNATIONAL PROGRAMME FOR CAPTIVE BREEDING OF THE SUMATRAN RHINOCEROS

Statement of the objective of the proposed Captive Breeding Project

The aim of captive breeding of the Sumatran Rhinoceros is to build up and maintain a viable captive population, managed to maximise breeding rate and to minimise the effects of genetic inbreeding, so that wild protected areas can be restocked when protective measures are adequate.

An important point to note is that to achieve this aim, it will be necessary to build up the population to a "genetically effective size". This is reckoned to be around 25 breeding adults (the number is somewhat arbitary). Given that some Rhinos in a population will be immature, senile or infertile, then there should be 30 to 40 individuals in captivity. A smaller number will eventually be plagued with inbreeding, leading to defective offspring, abortions and decreasing fertility.

The case for and against loan of Sabah Rhinos to U.S. zoos as part of the breeding programme, on a point-by-point basis

These include some of the main specific points brought up by those in favour and against.

FOR = in favour of loan to U.S. zoos
AGAINST = against loan to U.S. zoos

(1) The Rhinos are part of Sabah's national heritage

FOR: the Rhinos would be on loan, specifically for the purpose of achieving the objective stated above. This is more like loaning, for example, rare archaeological exhibits to foreign museums, and not like export of Sabah's timber for financial gain.

AGAINST: on principle, Sabah's wildlife should not be allowed to leave Sabah, for any reason.

(2) Rhinos should be conserved in their natural habitat in Sabah, the most appropriate place for them

FOR: the whole point of the captive breeding project is that the

natural habitat is not safe for the Rhino in Sabah under current circumstances. Firstly, there are too many guns available with little control on their use. Many Rhinos are killed by supposedly responsible people who have been entrusted with guns for security reasons, not for poaching. Secondly, the Game Branch, Forest Department, the government agency responsible for conservation of wildlife outside Parks, has not been allocated adequate manpower to provide protection for wild Rhinos. Thirdly, legislation and penalties for killing Rhino are totally inadequate. The only possibly effective legislation would be a mandatory jail sentence of, say, 10 years, for possession of any part of a Rhino. Many people have realised these facts for many years, but no action has been taken.

AGAINST: Recognising these problems, steps should be taken now to implement these ways of protecting wild Rhinos, rather than thinking of sending Rhinos overseas.

(3) Such a project has never been attempted before

FOR: This is false. At least two previously endangered species have been saved from extinction by means of captive breeding in foreign zoos. The Arabian Oryx (an antelope) and Pere David's Deer (from China) became extinct in the wild, and both exist now only because captive populations had been formed in U.S.A. and U.K. respectively before those in the wild disappeared.

AGAINST: Such a project has never been attempted on solitary, forest-dwelling mammals, which are difficult to catch.

(4) Why should Rhinos be sent to U.S.A. rather than kept in Sabah

FOR: The captive project envisaged is not export to U.S.A. It is an international project aimed at pooling resources and expertise (and accountability, if mistakes are made). It so happens that U.S.A. was chosen because of (a) Sustained availability of funds. The American Association of Zoo Parks and Aquariums represents a network of some of the most richly endowed zoos in the world which operate for propogation of animals in captivity, independent of government, (b) The finest array of resources for captive breeding of wild animals with contacts not just in U.S.A. but throughout the world, (c) Willingness to act immediately.

AGAINST: Sabah should develop its own facilities, or ask for help from zoos with the relevant experience.

(5) Why should Rhinos be allowed out of Sabah but, according to the international plan, not out of Peninsular Malaysia

FOR: Firstly, the Sabah form of the Rhino is a different sub-

species from that occurring in Peninsular Malaysia, and it is considered that the two forms should be bred separately (although they can interbreed). Sabah Rhinos would be propogated in Sabah (the first two pairs) and U.S.A. (the next four pairs), while Peninsular Rhinos would be propogated in Melaka Zoo. Secondly, Peninsular Malaysia has much superior resources locally than does Sabah. The National Parks and Wildlife Department there has about 1,000 staff (compared to about 35 in Sabah's Game Branch). The Institute for Medical Research, Universiti Pertanian Malaysia and Singapore Zoo are all within road access of Melaka Zoo to provide quick back-up. Thus, Peninsular Malaysia has much less need for sustained help from outside expertise.

AGAINST: Experts could be employed to live at the captive breeding facility in Sabah, or on standby to come at short notice from elsewhere. Or Sabah Rhinos could be sent to melaka Zoo, rather than U.S.A.

(6) Rhinos may die during capture, transportation or in zoos to which they are not accustomed

FOR: The Rhinos would die in any case, from poaching. It is true that risks of injury or death are present, but the U.S. zoos proposed for this project have among the best records in the world for care and breeding of tropical mammals.

AGAINST: The risks are higher, the further the Rhinos are transported. Vehicles or aeroplanes may crash.

(7) Techniques proposed by the U.S. zoos to enhance breeding success (artificial insemination and embryo tranplant) have not been tried on Rhinos

FOR: But the techniques have been successfully used in both domestic mammals and in exotic tropical mammals in U.S. zoos. Last year, the embryo of a Bongo, a rare, forest-dwelling African antelope was successfully transplanted into a female Eland, a common, grassland antelope, and a young Bongo was born successfully. Thus, Sumatran Rhino embryos might be transplanted to female African or Indian Rhinos (common in U.S. zoos). The purpose of this technique is to speed up rate of production (by a factor of perhaps five or ten fold - important in such a long-term project).

AGAINST: It is better to let breeding occur naturally, even though this may take much longer to achieve a viable captive population.

(8) If U.S. zoos want to assist in conservation, they should finance the project entirely within Sabah

FOR: Some thought will reveal that this is an unreasonable expectation. It has already been raised during lengthy discussions over the past three years with the zoos, and rejected as not feasible. The zoos will be investing millions of dollars. They are not government-sponsored and must recoup some of that money by increased visitor attendance, which would result from the presence of Sabah Rhinos in their zoos. To think that financial considerations do not come into the project is naive. The transfer of complete facilities, breeding technology and personnel into Sabah would increase costs enormously, yet the zoos have no guarantee of long-term support from Sabah. They are taking a greater risk than is Sabah, by investing millions and hoping for returns only after two breeding pairs of Rhinos have been caught.

AGAINST: Sabah should make all efforts to seek adequate funding, from abroad if necessary, so that all breeding can be done in Sabah.

(9) Zoo animals are vulnerable to epidemic disease

FOR: This is a major factor in support of loan to U.S. zoos, not against. If all Rhinos were kept in one place, they may be wiped out.

AGAINST: There should be at least two separate captive facilities in Sabah.

(10) Local Zoologists are capable of carrying out the project without outside expertise

FOR: The few people who have any relevant expertise have full-time jobs with committments in universities and Veterinary Departments. They cannot spare adequate time on the Rhino project. Also, their experience relates mainly to domestic species, and none have experience with Rhinos, let alone breeding of Rhinos.

AGAINST: This project is of such importance that the most experienced Malaysian personnel should be seconded to it.

(11) The climate is more suitable in Sabah for Rhinos, because they are native here

FOR: This is not valid. Rhinos have problems with body heat regulation because of their massive build; that is why they live inside forest cover and spend much time wallowing in pools. Furthermore, experience over decades in U.S. zoos has shown that climate is not an obstacle to breeding tropical species in temperate climates. Many tropical mammals have bred in temperate climate zoos, but very few tropical mammals have bred in tropical climate zoos. Many Malaysian people, less hardy than Rhinos,

have lived in temperate climates but few have experienced problems breeding as a result.

AGAINST: The Rhinos are native to Sabah but not to U.S.A. Therefore, they must be better adapted to Sabah's climate and may suffer in cold weather.

Summary of Pro's and Con's

In summary, apart from specific objections to, and points in favour of, breeding involving loan to U.S. zoos, the following seem to be the main conceptual "pro's and con's".

PRO

(1) U.S. zoos have the best array of expertise for the project, whereas Malaysia has little, and Sabah almost none.

(2) If U.S. zoos are permitted to take some Rhinos on loan, the financial cost to Sabah would be much less than if Sabah does it alone.

(3) U.S. zoos are likely to sustain the project indefinitely, being more independent and flexible in times of financial and political change.

(4) U.S. zoos have money and expertise available to start work immediately.

(5) If the project is international, responsibility and accountability is shared.

(6) Sabah was the first state to raise the idea of captive breeding the Sumatran Rhino, early in 1983. Since then, such a project has started in both Peninsular Malaysia and Indonesia (Sumatra), while nothing has been achieved in Sabah. The concept has reached the international audience, and an international breeding programme has been proposed and refined under the auspices of IUCN (the International Union for Conservation of Nature - wildlife's equivalent of the United Nations). It would seem to be cheaper and more rational for Sabah to join the international programme.

CON

(1) The Sumatran Rhino is part of Sabah's national heritage, and on principle should not be allowed to leave Sabah, just as valuable non-living treasures are not allowed to leave.

(2) Sabah has for too long been seen as nothing more than an exporter of primary commodities, and should take this opportunity

of developing its own expertise in a completely new field.

(3) If the project were done in Sabah, it would provide more jobs of all sorts, especially jobs with a technical training component.

(4) The project, if done entirely within Sabah, would serve as a new major tourist attraction.

The Rhinoceros (Dicerorhinus sumatrensis) in Sabah

Introduction

Man was hunting rhinos in eastern Sabah at least 6000 years ago, and it is likely that horns have been exported to China for at least several hundreds of years. When Europeans started the exploration of what is now Sabah, during 1870's - 1890's, it was found that the human population was concentrated mainly in the hills and coastal plains in western and northern Sabah and along the large rivers on the eastern side. Conversely, rhinos were never reported from the west and north, but were commonly encountered, and invariably shot, throughout the east. The British and Dutch founded trading settlements and opened up land for plantations, encouraging settlers from China because of their reputation for hard work and trading abilities. Rhino hunting was presumably encouraged by the Chinese traders. Horns were constantly available in Sandakan town during the early 1900's at contemporary prices of about $50 per kilo (British North Borneo Herald, 1900 - 1915). Hunters, both immigrant and even native residents, apparently did not venture far from the coast or rivers.

In the early 1950's, licences to log large areas of forest for timber for export were for the first time given to several foreign entrepeneurs - previously , only one British - owned company was permitted to do this. A little later, local Chinese entrepeneurs were given licences, and several new large-scale agricultural plantations were established. Lacking adequate labour, Iban prople from Sarawak were encouraged to come to eastern Sabah to work in these tough new enterprises. Ibans are renowned for endurance in tough conditions and for exceptional hunting abilities.

Contemporary reports in Forest Department files of the 1950's - 1960's indicate that it was recognised that rhinos were much less abundant than several decades previously and some of the entirely expatriate senior officers were genuinely concerned about the future for the species in Sabah. Many men who were junior staff in the Forest Department or workers in logging operations during that period recall seeing rhinos in logging areas. Certainly, it was not realised by senior administrators that rhinos were still present throughout much of eastern Sabah. They also did not appreciate that Chinese traders were supplied with horns mainly by Iban hunters who scoured eastern Sabah over the two decades between the early 1950's to early 1970's. Some Ibans apparently even walked from Sarawak and back on expeditions lasting many months. Even in the past decade, 1975-1984, with much fewer rhinos and fewer Ibans, there is evidence of at least two rhinos being killed annually in Sabah.

The past five years

In 1980, it was discovered that several rhinos were alive in one region, the middle of the Dent Peninsula in eastern Sabah, an area named Silabukan after the largest Forest Reserve in the region. This discovery stimulated renewed interest in the rhino in Sabah and cognisance of the necessity for better knowledge of the status of the rhino and for a plan for conserving the remaining population.

Surveys conducted since 1980 have revealed that:-

(1) The Silabukan population may include 18 adult rhinos (sx ratio unknown) and possibly more.

(2) There are other rhinos scattered over much of eastern Sabah; the number is unknown, but appears to be at least ten individuals. Some are isolated and probably the majority are not breeding.

(3) The rhinos can tolerate selective logging as practiced in Sabah and breed in logged forest; they cannot survive in non-forested areas, and much of eastern Sabah has been allocated for permanent agriculture.

(4) Poaching of rhinos continues and cannot be prevented.

In March, 1984, about 122,000 hectares of the Silabukan area were legally gazetted as Tabin Wildlife Reserve (see map). The threat of poaching is undoubtedly a significant and long-term problem, but we consider if important to try to maintain a population of wild rhinos. Any suggestion that rhinos be caught from Tabin W.R. will not be entertained. On the other hand, we do not consider it advisable at present to introduce rhinos into Tabin from elsewhere. There are two reasons for this. Firstly, we do not have adequate knowledge of the existing rhino population to assess whether introduction of new rhinos will in practice enhance its survival prospects. Secondly, the risk of poaching of new rhinos is high, probably to a greater degree than the risk for resident rhinos. There are several other conservation areas of large area and with rhino habitat in Sabah (see map). Kulamba Wildlife Reserve (20,682 ha) is too small to support a viable rhino population, since it is mostly swamp forest with patches of dry land. A few rhinos do exist in and around Kulamba, however. Tawau Hills Park has no rhinos and is rather small and isolated. Danum Valley and Gunung Lotung Conservation Areas, and the forest between and around these areas, does support some rhinos, but few, and the region is difficult to survey. There are no rhinos in the Crocker Range and none have been reported in Kinabalu Park for over 25 years. There are no Reserves suitable for translocation of rhinos from isolated forest in agriucltural areas.

The Future

Our most important task in Sabah is to maintain Tabin Wildlife Reserve and its rhinos, in the face of constant poaching pressure, and in the longer term against an increasing human population and need for agricultural land. About half of Tabin is good, accessible land suitable for permanent agriculture. Based on available information, our best guess one year ago (October 1983) when the last major survey was done was that Tabin Wildlife Reserve and adjacent land already allocated for agriculture supported about 20 rhinos. Since that time, we believe that at least three of those rhinos have been killed. Despite this, we feel on principle that every effort should be made to conserve a wild population of rhinos in Borneo while the chance still remains. We also feel that a captive population of rhinos is an essential complement to the wild population, as a guarantee against failure of the wild population, and, in any case, as a source of new rhinos in the future to maintain adequate genetic diversity in the wild population. Fortunately, a potential source of rhinos for captive breeding is still available, in the form of scattered individuals in logged forest throughout eastern Sabah, most of which is allocated for agricutlure. We estimate that there are about fifteen such rhinos, although this is little more than a guess based on occasional sightings of rhinos or fresh tracks.

The general feeling in Sabah is that any rhinos caught should remain within Sabah. We appreciate that, for several reasons, this may not be feasible in the immediate future. Most urgent is to reach an amicable agreement on how best to make best of rhose rhinos which are still alive but doomed.

SABAH RHINO AND WILDLIFE CONSERVATION COMMITTEE

Working Paper for First Meeting of Technical Committee, 4 - 5 November 1985, at Kinabalu Park.

TECHNICAL COMMITTEE

RHINO CAPTURE SUB-COMMITTEE

Objectives

1) To locate Rhinos suitable for capture.
2) To catch Rhinos for the proposed captive breeding population.

Terms of Reference

1) The Rhino Capture Sub-committee (RCSC) will have a Chairman and, if desirable a Co-chairman, (hereafter referred to as "the Chairmen of the RCSC", even though only one Chairman may be selected) and unlimited number of members. The Chairmen will nominate members of the sub-committee.

2) Survey and capture operations will be managed by an Operations Manager, working full time for the project. The Operations Manager will preferably be one of the Chairmen of the RCSC, unless there are special reasons why this is not possible.

3) The Chairmen of the RCSC, through the Chairman of the Technical Committee, may request that the SRWCC co-opt personnel into the RCSC.

4) The Chairmen of the RCSC, through the Chairman of the Technical Committee, will request for approval of schemes of service and rates of payments, from the SRWCC.

5) In addition to previously agreed salary, allowance and bonus payments, the Operations Manager will be allocated a "float" of funds for which prior permission for withdrawal is not required from either the SRWCC or the Chairman of the Technical Committee or from the Chairmen of the RCSC (if the latter is not Operations Manager). Money from the float may be used for payment for services rendered, for hire of transportation or for materials. The Chairmen of the RCSC will be obliged to account to the SRWCC, through the Chairman of the Technical Committee, for money spent after the event.

6) The Operations Manager (in consultation with the Chairmen of the RCSC, if appropriate) will locate and assemble personnel to form teams for location and capture of Rhinos.

7) The SRWCC will ensure that the Chairmen of the

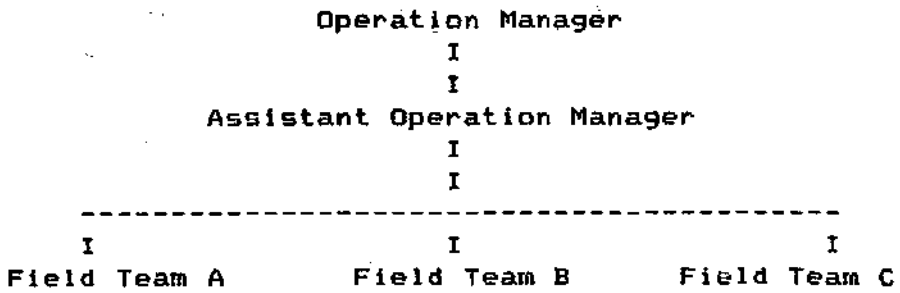
RCSC/Operations Manager are provided by all relevant government and semi-government agencies, with any reasonable assistance required. Such assistance includes maps, aerial photographs and other restricted information where that may be required for successful performance of duties. The SRWCC will also endeavour to secure the co-operation of non-goverment organisations (such as plantations) for improved operation of survey and capture work.

8) The Chairmen of the RCSC/Operations Manager will undertake the capture only of Rhinos classified as "doomed". This includes any Rhinos found in land allocated for agriculture more than 5 kilometres outside a Permanent Forest Reserve or other legally protected area. In such cases, the Chairmen of the RCSC will be at liberty to direct capture of that Rhino without prior reference to other parties. In cases where a Rhino is located within a legally protected area, or within 5 kilometres of its boundary, but believed to be "doomed", the Chairmen of the RCSC will refer to the Chairman of the Technical Committee for a decision on whether to proceed with capture efforts.

9) The RCSC may liaise with and call for the assistance of the Department of Wildlife and National Parks, Peninsular Malaysia, where one Rhino has already been trapped.

Survey and capture methods

1) It is proposed that surveys to locate Rhinos and trapping of Rhinos will be done by the same group of personnel. Structure of the Survey and Capture Team as follows:



Roles of Operation Manager -

Report to/liaise with Technical Committee (through the Chairmen of the RCSC)
Purchase of materials and services, hiring vehicles/personnel
Decide on areas for surveys
Decide on siting of traps
Supervise all other personnel in survey/capture operations

Supervise construction of traps
Plan logistics of all aspects of operations
Responsibility for equipment and management of "float" funding
Advise on method of transporting Rhinos from trap to permanent facility

Roles of Assistant Operation Manager -

Assists Operations Manager in all activities
Supervision of field operations when Operations Manager elsewhere

Roles of Capture Teams -

To conduct surveys to locate presence of Rhinos
To investigate movements of Rhinos (by tracks and other signs)
To construct traps for Rhinos
To maintain and monitor traps

(Capture teams will be employed both for surveys and capture)

2) Personnel for capture teams will as far as possible be recruited from rural areas, and known or suspected Rhino poachers will be a first choice.

3) Initial surveys will be concentrated in area A (see attached map).

4) Rhino traps will consist of stockade-type fencing made either from locally-obtained poles, or from custom-made, re-usable timber and/or metal parts. There will be one or more doors for each trap, which will be constructed around natural mineral sources or wallows where possible. A system will be devised so that a radio signal is received when the trap door shuts.

5) Field teams will be in contact with the Operations Manager by radio.

Budget

Note that this budget is merely indicative of costs likely to be incurred. Cost will vary with rate of capture of Rhinos and competence of staff employed.

Phase 1

M$

Establishment Costs

(a) Capture Operation

4-wheel drive vehicles (2)	80,000
Trap materials	20,000
Camping equipment	5,000
Radio-contact system	10,000
10% contingency funds	11,500
Sub-total	126,500

(b) Captive Breeding Facility

Paddocks, housing etc.	300,000
Staff quarters	300,000
Vehicle	40,000
20% contingency funds	128,000
Sub-total	768,000

Running costs (per year)

(a)

Vehicle running costs	14,000
Operation Manager salary	36,000
Assistant Manager salary	24,000
3 capture teams (18 staff)	216,000
Staff allowances, expenses	20,000
Staff insurance	5,000
Occasional expertise/consultancy	60,000
Bonus for successful captures (assumes about 20% of yearly salary, two Rhinos per year)	112,000
Helicopter hire (surveys)	25,000
Vehicle/plant hire for transportation of Rhinos (including tractor hire for road making)	150,000
Food/medical supplies	5,000
10% contingency funds	66,700
Sub-total	733,700

(b) Captive Breeding Facility

Unit Director	48,000
Assistants (2)	36,000
Security Guards (4)	48,000
Staff travel/other expenses	10,000
Bonus for successful care (10%)	13,000
Food/medical supplies	30,000
Vehicle maintenance	7,000
Maintenance of buildings	10,000
20% contingency funds	40,400
Sub-total	242,400

Cost for Phase 1

Capture/transportation		2,327,600
Unit maintenance		1,495,200
	Total	3,822,800

Points for Discussion

1) Decide on preferred personnel. Possibilities include:

Lamri Ali, Rahim Sedik, Francis Liew, Eric Wong, Gabriel Sinit, P M Andau, Sampoladon Pilik, Sundang Sarim, Saimon Ambi, Tony Umong, Joseph Gasis, Raymond Goh, Jimmy Omar; staff from Pehilitan (Rhino Unit), Dennis Yong; Rob Stuebing, Junaidi Payne, Clive Marsh; Tony Parkinson.

2) Responsibilities. When does Head of Rhino Breeding Sub-committee take over responsibility? (Suggest as soon as Rhino is in trap)

3) Who designs Captive Breeding facilities? What is latest date after capture of first Rhino that the permanent facility must be ready?

5) Type of radio communication to be used. How to obtain. Telekom permits.

6) Terms and conditions of staff involved in survey/capture.

Drafted by Wildlife Section,
Sabah Forest Department.

Rhino forum will help — Pairin

KOTA KINABALU, Thurs. — Chief Minister Datuk Joseph Pairin Kitingan said today the public forum on the Sumatran Rhino (see page 2) would assist the State Government efforts to conserve the animal in Sabah.

Datuk Pairin said the State Government was keen to breed the rhinos in captivity in Sabah and may look to outside expertise to help with these plans.

He said this during a courtesy call by some of the invited speakers for forum.

Dr. Warren Thomas, chairman of the Sumatran Rhino Trust, applauded the State Government's efforts to conserve the Sumatran rhino in Sabah.

With Dr. Thomas, who is also director of the Los Angeles Zoo, were Encik Mohd. Khan, Director General of the Federal Department of Wildlife and National Parks and his assistant, Encik Louis Ratnam.

Also in the party calling on the Chief Minister, were Dr. Thomas Foose, conservation co-ordinator of AAZPA, Mr. Michael Dee of the Los Angeles Zoo, Mr. Nico Van Strien of International Union for Conservation of Nature (IUCN) Sumatran Rhino Conservation Masterplan.

They were accompanied by two officials of the Sabah Society, Datuk Dr. Lai Kuen Fong, the Vice-President, and Mr. Chio Cheng Leng, the treasurer.

A meeting between the State Rhino Technical Committee and the invited speakers from the AAZPA and the Federal Department of Wildlife and National Parks, has been planned for Saturday.

Daily Express 22/11/85

Rhino plan to get $3 million

23/11/85

KOTA KINABALU, Fri. — Mr Patrick Andau of the Sabah Wildlife Department in Sandakan today told the Sumatran Rhino forum that the Government had earmarked about $3 million for the proposed rhino conservation programme and that this was to be supplemented by contributions from the public.

Speaking from the floor at today's forum he said it was too early for the Sabah rhino committee to give full details of its programme.

His comments followed a series of question from the floor on what exactly the Sumatran rhino panel set up by the State Government planned to do to save the animal.

The head of the panel's technical committee Dr Murtedza Mohamad faced a barrage of questions on the committee's plans. He pointed out that the panel was an ad hoc one and that it was only helping the Wildlife Department which has a lot of problems.

To a question from Dr Salleh Mohd Noor of the Malayan Nature Society, Dr Murtedza said the committee's plans included a survey and compilation of information on existing Sumatran rhinoceroses; protection of existing conservation areas; establishment of breeding centre; capture of endangered animals; translocation to the centres; captive breeding; research and development.

Scepticism

He said the cooperation of loggers will also be sought in reducing the incidence of poaching, while the assistance of the armed forces, police and forest rangers would also be enlisted to bring poachers to book.

In addition there will be increased surveillance of outlets for rhino products.

A member of the floor, Mr Lim Tyng Yee, voiced scepticism over the adequacy of local expertise to deal with the matter and called on all concerned to be 'rational'.

Dr Murtedza, in reply to a question said that 'we have the local expertise'. Later a veterinarian said from the floor that even as a vet he did not consider himself an expert on the Sumatran rhino.

Survey / Capture Team

(1) Prepare list of physical requirements

185 (2) 3 teams: 1 team leader, 5 Catians, 1 driver + head = 22 men

(3) Trap methods

(a) Stockade (wood)
(b) nylon net fencing
(c) chase with dogs
(d) darting
(e) "pit" (with radiotransmitters

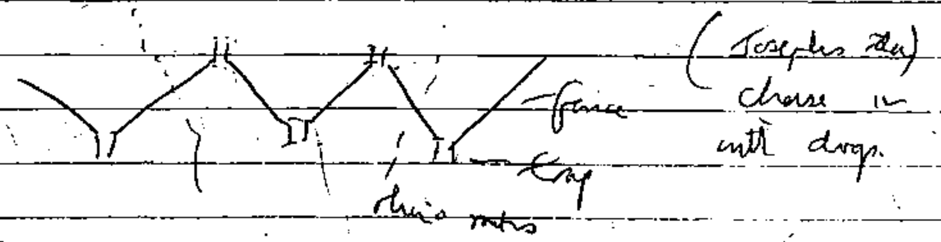
} all possible

use only soft "manila" hemp ropes

(4) Get Rhino out as soon as possible

(5) Try to catch 1 within 3 months

(6) Aluminium crating.

(f) 

Reward system to capture: MK3000 per valid report leading

NB CHECKLIST OF ALL Necessary Items for Survey / Capture.

Meeting 25/10/88
2.30 pm
Puan Ariah's Office.

SRCWCC

Organisasi Pelaksanaan Projek Pemuliharaan Sumber Asli Di Sabah (Tentatif)

these are permanent members

URUSETIA PEMULIHARAAN SUMBER ASLI (UPSA)
(di bawah Jabatan Ketua Menteri)

Pengerusi: YB. Pn. Ariah T. Ahmad
Pengerusi Bersama: YB. Tan Kit Sher
Setiausaha: En. William Shim
Ahli: Bahagian Hidupan Liar, J. Hutan
Taman Sabah
EPU → (J. Pemb. Negeri) + Kement. Kewangan.
Jabatan Perkhidmatan Haiwan
Jabatan Pertanian
Jabatan Hasil Bumi
UKM Sabah

+ 1 representative of "Local Citizens" = Danstan Dumpangol

JAWATANKUASA TEKNIK — **JAWATANKUASA UNDANG-UNDANG** — **JAWATANKUASA URUSAN KEWANGAN** — **JAWATANKUASA PENDIDIKAN & PERHUBUNGAN AWAM** ← 4 chairmen + 4 sub-committees

JAWATANKUASA TEKNIK

Penyelaras Projek: En. Mahedi Andau

JAWATANKUASA UNDANG-UNDANG

Peguam Negeri (Pengerusi)

JAWATANKUASA URUSAN KEWANGAN

Perbendaharaan Negeri (Pengerusi)

'Local Citizens'

JAWATANKUASA PENDIDIKAN & PERHUBUNGAN AWAM

Muzium/Arkib:
- En. Anwar Sullivan

Perpustakaan:
- Pn. Edeline Leong

Jabatan Pelajaran:

UKM Sabah:
- Dr. Mohd. Haleem Hj. Razi

Yayasan Sabah:
- Dr. Clive Marsh
- En. Jimmy Omar

'Local Citizens'

(1) Sabah Society
(2) Sabah [illegible] Society

JAWATANKUASA KECIL BIAK-BAKA

Jabatan Per. Haiwan (Pengerusi):
- Dr. Edwin Bosi

Kaedah Biak-baka:
- Prof. Dr. Jainuddin (UPM)
- Dr. Ahmad Mustaffa Babjee (J. Per. Haiwan Persekutuan)

Kaedah-kaedah Genetik:
- Dr. Ariffin Bongsu (UPM-Karyotyping)
- Dr. Tan Soon Guan (UPM-Electrophoresis)
- Dr. Alias Kamis (UKM-Kaedah Radiobiologi)

Fisiologi & Pemakanan:
- Dr. Ridzwan Hashim (UKM)

JAWATANKUASA KECIL EKOLOGI & LAPANGAN

Pengerusi:
- En. Lamri Ali (Taman)

Penyelia Lapangan:
- Dr. John Payne (WWF)

Penangkapan Haiwan:
- En. Tony Parkinson
- (Perhilitan Persekutuan)

Penyelidikan & Pininjauan:
- En. Joseph Gasis (YS)
- En. Robert Stuebing (UKM)

25/10/05

Intro by Puan Arah

Ad hoc committee.

Permanent Members - see chart.
(Local rep. is Dunstan Dumpangol)

Term of ref - to be dealed by Subcommittee (4) + report back in 2 weeks

Objective - as proposed by private group of local members

Subcommittees

Kewangan — Chairman Dunstan Dumpangol — Deputy Chairman Min. of Finance.

Hubungan-2 — Chairman Att. General rep — Deputy Chairman Joseph Chia

Undang/Kemudahan — Chairman Adeline Leong — Deputy Chairman Hakim Razi

Teknikal — Chairman Dr. Murtedza — Deputy Chairman t. be selected by Dr Murtedza: Lamin Ali, IM Ardan, Ed. Bosi

Secty/Typist t. be Secondd from govt dept via Willie Shim.

Any member who does not attend for 3 or more times must be dropped; for all committees/subcommittees

No press statements without concurrence of Chairman

Next meeting 7th Nov.

Notes of the discussion of Rhino Technical Committee at Friendship League at 7.00 p.m. on 22 October 1985

Attendance List - See Appendix 'A'

Y.B. Tan Kit Sher chaired the discussion. The following proposals/suggestions were made for the consideration of the State Government:

(1) The formalization of the State level Sumatran Rhino Technical Committee with its terms of reference and objectives;

(2) The committee would be directly responsible to the State Cabinet and amongst others, its function would be to advise and recommend to the State Government the course of action to be taken with regard to rhino project;

(3) The committee to be empowered to form sub-committees; to co-opt person/persons and take whatever action appropriate to achieve the objective;

(4) To decide the formation and meeting of the protem committee on 25th October 1985 at 2.30 p.m. at the office of Y.B. Puan Ariah Tengku Ahmad, Wisma Sabah Building.

The following items have been approved in principle for discussion on 25th October 1985:

(a) Welcome speech;

(b) the formation of the main committee - objectives, terms of reference;

(c) presentation of organization chart;

(d) functions and roles of sub-committees;

(e) to decide on members of sub-committees;

(f) any other business.

....2/-

2. The discussion has proposed tentatively that the launching of the technical committee should be on the 2nd week of November. Members present also discussed the organisation chart as presented at the meeting and /to add agreed in principle /the following members for Y.A.B. Datuk Ketua Menteri's consideration:-

Pengerusi	:	Y.B. Puan Ariah Tengku Ahmad
Pengerusi Bersama	:	Y.B. Tan Kit Sher
Setiausaha	:	William Shim - Setiausaha Hasil Bumi
Ahli-Ahli	:	Bahagian Hidupan Liar, Jabatan Hutan
		Taman Sabah
		Jabatan Pembangunan Negeri
		Jabatan Perkhidmatan Haiwan
		Jabatan Pertanian
		Kementerian Kewangan *
		Universiti Kebangsaan Malaysia
		"Local Citizens" - 1 *
		Chairman of 4 sub-committees *

The main committee should be empowered to co-opt person/persons interested, group/groups, association to the sub-committee as and when necessary.

LAMPIRAN 'A'

	NAME	ADDRESS	TELEPHONE
1.	Y.B. Puan Ariah Tengku Ahmad		
2.	Y.B. Tan Kit Sher		
3.	William Shim	Setiausaha Hasil Bumi	32653 (O) 214936 (H)
4.	Mahddi Andau	Wildlife Section Forest Department	660726
5.	Francis Chau	W.D.T. 323, 88999, Kota Kinabalu	214266 (O) 711488 (H)
6.	G. A. Kunjan	P. O. Box 10740, K.K.	212852 (O)
7.	Terence Chong	P. O. Box 1625, K.K.	35034 (O)
8.	Dunstan Dumpangol	P.O. Box 101, Keningau	210037 (O) 711702 (H)
9.	Rob Stuebing	Fakulti Sains, UKMS	
10.	Dr. Murtedza Mohamed	FSSA	58289 (O) 217190 (H)
11.	Lamri Ali	Taman Sabah, P. O. Box 626, K.K.	211524
12.	Benedict Topin	W.D.T. 39, Penampang	713337 (O) 713690 (H)
13.	Peter Athanasius	JABATAN KETUA MENTERI	32945 (O) 53653 (H)
14.	Puan Sue Jaya Suria		

LAMPIRAN 'B'

Pengerusi	:	Y.B. Puan Ariah Tengku Ahmad
Pengerusi Bersama	:	Y.B. Tan Kit Sher
Setiausaha	:	William Shim - Setiausaha Hasil Bumi
Ahli-Ahli	:	Bahagian Hidupan Liar, Jabatan Hutan;
		Taman Sabah;
		Jabatan Pembangunan Negeri;
		Jabatan Perkhidmatan Haiwan;
		Jabatan Pertanian;
		Universiti Kebangsaan Malaysia;
		Kementerian Kewangan; *
		"Local Citizens" - 1 * (Puan Sue Jayasuriya)
		Chairman of 4 sub-committees *

* Ahli-ahli tambahan yang disyorkan.

SABAH SOCIETY
P.O. BOX 547
KOTA KINABALU
SABAH, MALAYSIA

SABAH SOCIETY NEWSLETTER NO. 17 – SEPTEMBER 1985

SAVE THE RHINO

The highlight of this month newsletter centres on the controversy of the proposal to capture six pairs of Sumatran rhinoceroses in Sabah, of which four are to be exported to zoos in the United States as part of a captive-breeding programme. The first two pairs are intended for captive breeding at Sepilok near Sandakan.

If you had read in the papers and recollect, it is the Sumatran Rhino Trust of the American Association of Zoological, Parks and Aquariums (AAZPA) that proposed this programme which also includes the capture of 4 pairs from Peninsular for captive breeding at Malacca Zoo. However, the progeny of the 'exported rhinos' will remain the property of the respective Sabah and Malaysian Government in Perpetuity.

Yes – the Rhino Project is important because they are on the verge of extinction. There has to be a comprehensive programme to save them and ensure their future survival in Malaysia.

*But the question is **HOW**? Can we hope for a miracle to save them in their natural habitat environment or that the captive breeding will definitely be 100% successful if it is carried out elsewhere outside the State. Or should there be captive breeding programme both locally and abroad to ensure maximum chance for the survival of the rhinoceros?*

*Local nature lovers have expressed their opposition to the proposed export programme for captive breeding. On 3rd August, 1985 the Sabah Government announced that it does not allow the export of rhinoceros from Sabah. Any research for the propagation of the species should be done here as "**their best chance of survival is in their natural habitat**".*

SELAMATKANLAH BADAK SUMBU

*Risalah Pertubuhan Sabah bulan ini menunjulkan perbalahan pendapat di atas usul (menangkap 6 pasang badak sumbu **(Dicerorhinus Sumatrensis)** di Sabah dimana 4 pasang diekspot ke Amerika Syarikat untuk dipelihara dan dibiak di zoo terpilih di sana. Sementara itu 2 pasang yang lain dipelihara dan dibiak di Sepilok dekat Sandakan.*

Akhbar tempatan telah memberi latar belakang projek mengekspot badak iaitu diselaraskan oleh Sumatran Rhino Trust dibawah pengendalian Pertubuhan Zoo, Taman Negara dan Aquarium Amerika (AAZPA). Persatuan ini juga sedang merancang projek yang sama bagi badak sumbu dari Semenanjung. Walaubagaimanapun, hasil pembiakan badak badak dalam pemeliharaan adalah hak milik berterusan bagi kerajaan yang terlibat.

Ya – Memandangkan jumlah badak yang kian berkurangan dan hampir luput, maka Projek menyelamatnya adalah penting dan sungguh bermakna. Program yang menyeluruh adalah perlu untuk mempastikan masa hadapan mereka di Malaysia.

*Tetapi **BAGAIMANA**? Adakah kita berharapkan satu kuasa ajaib bagi menyelamatkan mereka dalam alam keadaan semula jadi mereka ataupun pembiakan secara terpelihara dan berlindung akan membawa kejayaan 100% sekiranya dibuat diluar negeri ? Atau pun program membiak secara terpelihara perlu dilaksana serentak sekali di-dalam dan luar negeri?*

Peminat peminat Alam Sekitar telah menyatakan perasaan dan membangkang programme mengekspot binatang ini. Pada 3 Ogos, 1985, Kerajaan Sabah juga telah mengumumkan larangan di atas pengekspotan binatang ini. Kerajaan berpendapat sesuatu kajilidik bagi melipatgandakan pembiakan binatang mestilah dijalankan disini bagi mempastikan kejayaan hidup yang terselamat dalam habitat semula jadi mereka.

All of us shoulder the heavy responsibilities of preserving the country's natural heritage. We must understand the necessity of taking drastic measures to save the few remaining individuals of ***Dicerorhinus Sumatrensis.***

There must be a concerted and cooperative effort by all concerned to ensure that the Sumatran rhinoceros of Sabah is saved and not facing a zero-population growth rate.

Kita semua bertanggungjawab menyelamatkan warisan alam kita ini. Kita perlu memahami keperluan mengambil tindakan tegas bagi menyelamatkan seberapa yang boleh saki-baki ***Dicerorhinus Sumatrensis*** *yang masih hidup.*

Pengembelengan tenaga dan kerjasama adalah diperlui untuk mempastikan terjaminnya dan selamat hidupan liar ini dari merosot dan luput di muka bumi ini.

PUBLIC SEMINAR/FORUM

In view of the controversy clouding over the rhinoceros issue, it was decided at the 3rd Committee Meeting that a public forum be held to get and asses the public opinion on the subject.

An Ad hoc Committee was formed to see the smooth running of the forum. Committee Officials are :

Anther Phillips
Dr. Clive Marsh
Datuk Dr. Lai and
Chio Cheng Leng

Date of Forum *: Wednesday 11th Sept. 1985*

Venue *: Mini-Theatre*
Yayasan Sabah

Time *: 2.15 p.m.*

Speakers *:*

Proposer 1. En. Momin Khan
(Director General Wild Life Parks, West Malaysia)

2. En. Miller Munang

Opposition

1. Mohd. Idris
(President of Sahabat Alam Malaysia (SAM) or Malaysian Nature Society

2. En. Sanudin Tahir
(UKM Lecturer)

SEMINAR/FORUM TERBUKA

Memandangkan pendapat yang bertentangan di atas isu mengekspot badak sumbu, maka di-Mesyuarat ke-3 Jawatankuasa Pertubuhan Sabah, telah dicadangkan mengada satu forum terbuka bagi mendapat pendapat umum yang meluas dalam perkara ini.

Satu Jawatankuasa Ad-hoc bagi menjayakan forum ini diwujudkan yang mana pegawai-pegawai nya ialah :

Anther Phillips
Dr. Clive Marsh
Datuk Dr. Lai dan
Chio Cheng Leng

Tarikh Forum *: Rabu, 11 Sept. 1985*

Tempat *: Mini Teater*
Yayasan Sabah

Jam *: 2.15 petang*

Pensyarah *:*

Pembentang 1. En. Momin Khan
Ketua Pengarah Jabatan Mergastua Malaysia

2. En. Miller Munang

Pembangkang

1. Mohd. Idris
Pengerusi Sabahat Alam Malaysia

2. En. Sanudin Tahir
(Pensyarah UKM)

A representative of the American Association of Zoological Parks and Aquarium (AAZPA) will also be invited.

Proposed Chairman for the Session :
Tan Sri Thomas Jayasuriya

Seorang wakil dari American Association of Zoological Parks and Aquarium (AAZPA) juga akan dijemput.

Pengerusi Sesi yang dicadangkan :
Tan Sri Thomas Jayasuriya

OTHER REPORTS

1. *SABAH SOCIETY DELEGATION MEETS MINISTER FOR MANPOWER PLANNING AND RESOURCE DEVELOPMENT*

On July 19, 1985, a delegation from the Sabah Society, comprising Datuk Dr. Lai, Encik Jumaat Adam and Dr. Clive Marsh met with Y.B. Tan Kit Sher to discuss the Society's memorandum "Proposals for the integration of conservation with development objectives in Sabah". Also present with the Minister were his Permanent Secretary, Encik Charles Edmund, his Environment Officer, Encik Yeo Boon Hai and from Sabah Parks, Encik Francis Liew and Encik Rahim Sedik.

The Minister opened the meeting by thanking the Society for its initiative and assuring us that he had read the memorandum twice and planned to act on most of the suggestions, within the constraints imposed by budget. He reminded us that the Government was still hardly two months old and would need time to act effectively. He said that he would shortly be visiting Kinabalu Park to study the situation on the spot, and that he was aware of the park's boundary problems. Other specific issued discussed included the following :

Marine Parks. *The bombing problem was discussed at length. The parks authority said that this was now much less serious than in previous years. This was accepted, but we cited three recent specific instances to indicate that it has not ceased altogether. Difficulties with enforcement were acknowledged by all and the Minister said that he would raise the matter again with the Marine Police. It was also suggested to write to the Kinabalu Yacht Club to remind members of the prohibition against spearguns in Tungku Abdul Rahman Park. Encik Yeo informed us of plans for a seminar for Ketua Kampongs on the effects of coral damage on fishermen's earnings. Much of the dredging, which also destroys coral, occurs just outside the park boundary and can not presently be stopped. However, action has been taken in a few cases of infringement and the matter is being examined further.*
On the subject of P. Sepadan, Sabah Parks told us that there is no prospect of it obtaining any protected status while its ownership remains in dispute with Indonesia.

Crocker Range National Park. *The Ministry clarified that a strip along the roadside including the Rafflesia site at km 59 is actually a Forest Reserve and excluded from the new National Park. Action against shifting cultivators here is thus the responsibility of the Circle Forest Officer in conjunction with D.O.'s Sabah Parks told us that they are presently reviewing the whole boundary and hope to obtain funds for some development of the park.*

Sabah Forest Industries and the former Klias Park. *Sabah Parks objected to this project at its inception, but was over-ruled. the mangrove portion of the park remains a Forest Reserve and there seems little purpose in proposing to revise it as a State Park, as it is adequately protected and not really suitable to develop for visitors.*

An Environmental Impact Assessment for the S.F.I. project was completed and distributed to several interested parties, including U.K.M.S. We expressed the the Society's concern that no "short-cuts" be taken in the implementation of adequate measures to prevent pollution of Brunei Bay.

Parks Legislation. *We were taken to task by the Parks representatives for not knowing that the 1974 Parks enactment does provide for a public enquiry to precede any proposed boundary alterations. We apologised for this, but on further checking of the Act it remains true that alterations to the parks do not require approval of the State Assembly. They can thus be changed more easily than Forest Reserves.*

Mamut Copper Mine. *The Ministry pointed out that despite all the outery about pollution, there is little or no chemical pollution from the mine, only suspended sediment. Encik Yeo Boon Hai requested details on any evidence of pollution that might justify further expensive studies of the problem. OMRD, the mining company has carried out experimental padi planting and found no reduction in yields.*

The meeting ended after two hours at 4.30 p.m. It was felt to have been constructive and cooperative in tone. We were at pains to point out the Society's good intentions in raising matters with Government, and, for our part, came away with a better idea of some of the constraints facing the administration.

*Also attached - The **MEMORANDUM** ON "Proposals for the integration of conservation with development objectives in Sabah".*

STOP PRESS.....

*At the 3rd Sabah Society Committee Meeting it was decided that while members of Society may speak in their personal capacity, especially for press releases, any comment which commit the Society should only be released **THROUGH** the President and Vice President.*

*This is to ensure that any press release should convey the view of the **CONSENSUS OF MEMBERS** rather than personal opinion.*

KENYATAAN AKHBAR .....

*Mesyuarat Ketiga Jawatankuasa Pertubuhan Sabah telah menetapkan bahawa ahli-ahli pertubuhan dibenarkan memberi pendapat peribadi atau tersendiri terutamanya dalam siaran akhbar. Walaubagaimanapun dalam hal-hal yang bersangkutan dengan pendirian Pertubuhan maka segala siaran akhbar mestilah di**SALORKAN** melalui Presiden atau Timbalan Presiden.*

Kawalan ini addlah perlu bagi menentukan bahawo segala siaran akhbar membentangkan pendapat ahli yang sebulat suara dan bukan pendapat individu.

(ZAHRA YAACOB)
Secretary

New Straits Times

WEDNESDAY, SEPTEMBER 11, 1985

A survival kit for the rhino

They are all agreed on the nature and magnitude of the problem and they also share a common objective, but some of them are strongly divided on the question of how best to save that species of rhinoceros whose existence in Sabah is being threatened. And they are also keenly aware that they must find a solution before the problem disappears.

Conservationists are agreed that the dicerorhinoceros sumatrensis, one of the world's rarest animals, has been facing an alarming decline in population. In 13 years (between 1970 and 1983), its numbers had reduced from 1,000 to 500, about 30 of which are reported to be in Sabah. Since then, eight Rhinos have been killed in the jungles of Sabah, probably by poachers.

Conservationists are also agreed that urgent efforts are needed to ensure the survival of the species. Conservationists also know that the animal's biggest enemy is man and that existing legislation has hardly been successful in stopping the wanton killing of the animals. Except for two European planters who were fined by a court in Malaya in 1948 for killing the protected animal, there have been hardly any prosecutions against rhino poachers. In Kenya where all game hunting is banned, a wildlife survey team in 1978 counted only 1,500 Black rhinos (a species whose population is considerably larger than that of his Sumatran cousin) compared with 11,500 in 1968. It has been reported that Malaysia is now considering introducing the mandatory jail term for poachers, but the chances of tracking them down are as remote as a chance to photograph a one-horned rhino.

So, what are they quarelling about? They cannot agree about which survival kit to use. Some nature lovers — notably the Wildlife Conservation Foundation, the Sabah Society and the Sahabat Alam Malaysia — are objecting to a plan which, inter alia, calls for captive breeding of the rhino in sanctuaries in Malaysia and North America. The plan was being hatched by the Sabah Forestry Department and a body set up by the American Association of Zoological Parks and Aquariums but before the final agreement could be signed the Sabah Government, obviously reacting to fears expressed by some quarters, slammed a blanket ban on the export of rhinos. The question now is should we sit back and let history decide whether or not the decision was a wise one? No, the risks are too great.

Of course, the best solution would be to leave everything to nature. But man has too often interfered with nature that he cannot be trusted alone with nature. The alternative is to listen to the experts. A strong advocate of the proposed agreement is Encik Mohamed Khan bin Momin Khan who is currently the chairman of the Asian Rhino Specialist Group of the International Union for the Conservation of Nature and Natural Resources (IUCN). He has said it was in the interests of IUCN to see the project is "a genuine part of a global strategy to save this species from extinction." He is convinced that the project is the only alternative to saving the Sumatran rhino. He should know. He has had considerable experience in wildlife management.

In matters of conservation, there is little room for parochial attitudes and for meaningless slogans about national heritage. Malaysia holds in trust for the whole world some of the rarest and most interesting wildlife. It's not a responsibility to be taken lightly. Malaysia cannot take the risk of unwittingly allowing it to have the dubious distinction of being known as the last place on earth where the Sumatran rhino roamed.

A case for keeping the rhinos here

The Sumatran rhinoceros

ON Friday, August 3, 1985 your newspaper published an article concerning the Sabah State Government's decision not to allow the export of the Sumatran rhinoceros.

Several statements in support of the Chief Minister's stand were attributed to staff members of Universiti Kebangsaan Malaysia Kampus Sabah.

Although the remarks were reliably reported in so far as the individuals in question did, and still do support the views expressed by the Chief Minister, the specific statements were rather inaccurately quoted, and thus require clarification.

Letters to the Editor

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We do agree that the plan to capture and export the rhinoceros does have its merits, but we believe that there are sufficient grounds for requiring the project to be carried out locally.

The original plan has several points in its favour, chief among them that the rhino population has dwindled to a dangerously low level, and that drastic measures may be necessary in order to prevent its imminent extinction.

The primary problems in preserving the animals locally involves protecting them from a deadly combination of habitat destruction and persistent illegal hunting.

Measures against the latter are very difficult as the areas are remote and still rather extensive.

Another problem is actually bringing culprits to book, as rhino killings are sometimes regarded as relatively minor crimes.

Thus the transport of a number of animals out of Sabah would certainly ensure their safety from poaching by irresponsible people whose prosecution might prove difficult.

A second positive aspect of the export plan is the potential application of advanced techniques to artificially increase the rhino's reproductive rate in the controlled zoo environment.

New methods, such as embryo transplants, could eventually enhance the reproductive output of the species and serve to build up their numbers more rapidly to a safe level, overcoming the problem of a naturally slow reproductive rate.

Through still experimental such techniques have already proved successful in several cases involving other endangered large mammals, such as the rare antelope.

With these points in its favour, why then should the rhino export plan not be adopted? We at the university feel that there are overiding considerations relating to the interests and needs of the rhinos in particular, and Sabah (and Malaysia) in general.

Firstly, the point has been made on many occasions, and is still valid, that the capture and transport of large, sensitive animals such as the Sumatran rhinoceros is likely to result in the death of a certain percentage of the captives.

The stress involved from the time of capture to eventual arrival in a zoo some 12,000 miles distant could take a substantial toll from an already alarmingly

Exposure to a strange physical and biotic (pathogenic) environment could further enhance the risks.

Unlike other large mammals such as the ungulates (antelopes and their kin) rhinos particularly the Sumatran rhino do not show nearly so good a survival record in zoos.

The Sumatran rhino's reproductive rate is particularly low, and as the species is not social, it probably is much more difficult to maintain in breeding condition in an artificial environment.

Thus, a direct and favourable comparison with the reproductive capabilities of ungulates is not valid.

The most reasonable compromise we feel, as has been suggested earlier, is to set up a breeding facility in Sabah and import the expertise.

There should be substantial savings on the original amount budgetted for transport of such a huge but delicate cargo, and both foreign and local scientists/administrators can achieve their goal of saving the species.

Besides, there would also be the added benefit of transfer of expertise to local institutions/agencies.

Finally, the setting up of a local facility would not rule out the possibility of export at some future date should rhino numbers be successfully increased.

Credit must certainly be [illegible]

not, as the initiative to save the species is long overdue, and time critically short.

The concern of the planners is much appreciated and should be applauded. Otherwise, the problem would never have come to the attention of the majority of Malaysians, and the possibility remains that no steps would have been taken until too late.

Now, more broadly-based cooperative measures can be taken in mounting a rescue attempt.

It is hoped that the recent decision concerning Sabah's responsibilities in the matter will be a step in the direction of more local participation in both the planning and execution of such projects.

Too often the role of local administrators and scientists is merely to give their consent to proposals formulated entirely from outside the country and presented in a more or less complete form at first viewing.

In extreme cases, funds are collected from local companies and channeled to projects planned and implemented almost entirely by foreign scientists.

The result has been to generally retard the development of local expertise in the area of wildlife conservation in particular, which simply feeds back once more to prolong the [illegible] for direct foreign participation in such ventures.

No one [illegible] foreign expertise is [illegible] [illegible] the matter [illegible]

restructured to promote and accelerate local involvement in tackling difficult problems such as rescuing the Sumatran rhinoceros from extinction.

The Kenyir dam rescue operation organised and carried out entirely by Malaysians was a historical development along these lines.

We hope that the latter's success will become an important first step towards Malaysians shouldering the often heavy responsibilities of preserving the country's natural heritage.

In conclusion, we reiterate that understand the necessity of drastic measures to save the few remaining individuals of *Dicerorhinus Sumatrensis*.

We also deeply appreciate the good intentions of all concerned in mounting a rescue attempt.

We do however feel compelled, for the reasons stated above, to fully support the stand taken by the Sabah Chief Minister and many others, that the rhinos remain in Sabah.

Finally, we hope that with a concerted and cooperative effort by all concerned, and as soon as possible, that population of the Sumatran rhinoceros in Sabah will be put on the road to recovery.

Robert Stuebing,
Murtedza Mohamed.

**Dr. Murtedza is Associate Professor and Dean of UKM Campus Sabah while Mr. Stuebing is a [illegible] lecturer at the same [illegible]*

Dee[illegible]actor in the rhino row

WITH reference to the recent fuss over plans to export endangered Sabah rhinos to an American zoo I have a few comments which might be considered relevant.

Firstly, the rhino has been an endangered species in Sabah for many years. We may regret now that steps were not taken then to protect these species more properly in its natural habitat.

The game branch of the Forest Department is responsible for protecting them. But if I am not mistaken, this department has too few staff to carry out its task. Instead of protecting endangered species, the officers have to spend their time catching people who have

licence.

Deer are not an endangered species and I suppose this job is done to increase government revenue.

Since the the licence fee is $300 per head which most people cannot afford, it might be better to reduce the fee to say, $20, so that more people will be interested in getting the licence.

Then the officers can spend more time on the more useful task of protecting endangered species such as the rhino.

Secondly, Sabah has been exporting millions of trees, which is the habitat of the rhinos, every year to other countries.

But to my knowledge no one has protested against

serious interest in our endangered species.

At least one senior person has been heard to remark in the past that preservation is in the interest of developed countries and in Sabah we have more important tasks.

Therefore, I do not understand the outcry at a proposal to help save an endangered species at no cost to the people of Sabah.

Finally, I hope that those who have complained at the proposal to export rhinos should get together to take the necessary action. If they do not, I would not be surprised if the rhino is extinct in five years.

Lim Y.K.,

Sabah: No plan to save rhinos

BORNEO BULLETIN 17/8/85

THE Wildlife Section of the Sabah Forestry Department admits that it has no alternative plan to save the State's rhinos, following Datuk Joseph Pairin Kitingan's decision not to allow four pairs to be sent to the United States on a breeding loan.

Members of the section fear that the 30-odd rhinos left in Sabah will now be at the mercy of uncontrolled poaching.

The director of Singapore's Zoological Garden, Mr Bernard Harrison, said this week the species might be wiped out before an alternative plan to save them could be worked out.

Mr Harrison was involved in four years of exhaustive discussions between the Sabah Forestry Department's Wildlife Section, the Malaysian Wildlife Department and the Sumatran Rhino Trust, an organisation set up by the American Association of Zoological Parks and Aquariums.

Last month a comprehensive agreement was finally reached between the three parties — one that only needed the green light from the Sabah Government.

Early this month the Deputy Conservator of Forests, Mr Millerd Munang, said that the plan was still being studied at department lever and that it was unlikely a cabinet decision could be made before the New Year.

However, Datuk Pairin said last week that the State Government would not allow the export of rhinos, and that if any research or propagation of the animal is done it should be done in Sabah.

He said the state Government wished to protect the endangered rhino, but he believed that their best chance of survival was in their natural habitat.

Those involved in the negotiations, though upset, declined to comment expect to say that they would abide by the Government's decision.

Mr Harrision, however, reacted by saying that the decision was a sad one as the breeding loan plan would have meant that the rhino would survive as a species.

"Now, unless there are some drastic changes in their conservation nothing much can be done to ensure the rhino's continued survival in Sabah," he said.

During the past four years at least 12 rhinos have been killed by poachers in the State, with another three already found killed this year.

The estimated 30 rhinos left are now mostly isolated in various areas near Lahad Datu — which means that there is hardly any breeding taking place.

Mr Harrison said that continued poaching might wipe out the species, and perhaps the only way to reduce the killing was to increase the number of rangers in Sabah.

Peninsular Malaysia, for its size, has 900 rangers, whereas Sabah which is about the same size has about 30 rangers," he said.

Even it the number of rangers is increased he felt that nothing would have been more beneficial than the breeding loan plan.

"In any case the decision to scrap the plan was not totally unexpected as there has been a change of government," he said.

"The decision appears to have been made because of national pride and not from a conservation point of view."

Govt stand on rhino export welcomed

KOTA KINABALU, Tues. – The State Government's decision to prevent the export of rhinoceroses for breeding purposes was today welcomed.

The Sabah Environmental Protection Association (Sepa) said it was considerably less risky to arrange for the breeding experiment in Sabah than elsewhere.

Its chairman Mr Henry Chok said what is important is to ensure the survival of the species. Looking at the low survival rate of endangered species taken to foreign zoos, 'a lot is left to be desired in this sort of undertaking' he said.

Yesterday Chief Minister Datuk Joseph Pairin Kitingan was quoted as saying that if there was any propagation or research of the animal to be done, it should be carried out in Sabah.

Before this various groups, including the Sahabat Alam Malaysia (Friends of the Earth) movement in the Peninsular, spoke out against the move which was to involve the 'export' of the Sumatran rhino to the United States for a breeding experiment.

Mr. Chok felt that if research on the rhinoceros was the objective, it would be more appropriate to 'import' the experts than to export the animals.

He also called for investigations into the reasons for the decline of the rhino population.

Penalties

'We need to be sure whether our forestry and other development activities are not encroaching into the territory of our natural habitat and endangering their survival," he said.

Another point of concern to him was the incidence of poaching and encroachment into gazetted conservation areas.

Mr Chok cited the example of the recent prosecution of a sand excavation operator who was found operating within gazetted Sabah Park Reserve near here.

He felt that enforcement at the moment may be inadequate and that many could be getting away because of flaws in policing protected areas and mild penalties handed out to culprits.

An ecologist, Mr. Robert Steubing, attached to the University Kebangsaan Malaysia (UKM) here, said he was glad that Malaysians were now realising the importance of conservation of their national treasures.

As a vertebrae biologist,

From Page One

he feels the rhinos would have a better chance of survival here.

He asked, 'How could the rhinos survive elsewhere if they are struggling here?'

This view was also shared by UKM's faculty dean Assoc. Prof. Dr. Murtoza Mohamad who said he had doubts as to whether the Americans had the right approach to the problem.

He said the State would be the sole loser if the approach is experimental and the motive 'profiteering', by exhibiting the rhino as a 'star attraction' in their zoos.

He suggested a committee be set up by the State Government to find a solution the issue, "urgent issue".

Breed 'em here

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unit.

In law there is no distinction between the man on the street and the powerful politicians and officials.

It is therefore important that the Chief Executive, or the State lead the way to solve the unhealthy trends in our society.

The Rhino project became a hot issue only recently. There are few organisations which are against such a project. There are some suggestions which may be difficult to accept such as the introduction of artificial insemination or A.I. in rhinos.

A.I. is indeed an advanced technology in livestock animals but may prove tedious if not impossible in wildlife.

The Rhino project should be undertaken in Sabah.

The Americans can bring in their money, expertise and equipment here.

Transfer of technology and know-how can be achieved by involving the relevant local people. It is not very right to say that there is no local veterinarian trained in this field.

It believed, there are some veterinarians here who are willing to pursue post-graduate training in wildlife, if the Forestry Department has suitable posts for such personnel.

A lot of wildlife study is undertaken in the country where the animals reside. We have seen ample proof from documentary films taken in Africa and so forth. Thus, there is no reason whatsoever why the rhino project cannot be undertaken in Sabah.

Adequate study and research must be undertaken on animals or marine life in their own habitat before any attempt is made to study them in captivity or aquariums.

Their behaviour is studied *in situ*.

Initial captivity is necessary for the insertion of radio transmitters or tags for the purpose of locating them.

Our people are by nature rural dwellers. The natural environment and everything in it are and have been taken for granted.

It is an enormous task for some organisations such as the Wildlife and Game Dept, the Sabah Parks and the Sabah Society, to inculcate the feelings of belonging and pride towards the natural environment and heritage, among our people.

We have to learn to preserve what we have. We would expect tourists, naturalists and scientists from all over the world to converge here because ours is exclusive.

If the proposal is accepted, we Sabahans have to play our role too. We have to ensure survival and longevity of our natural environment and all things in it. This is a primary and vital role for our people.

In summary, the approach to this problem should be as follows: –

- educate our people to be conscious of our natural environment and heritage and inculcate a sense of belonging and pride.
- be responsible citizens by alerting the relevant authorities on anyone or anything whose activities are detrimental to our environment and heritage.
- cooperate with the relevant authorities by hunting, when the time is permissable, games that are considered pests.
- improve our enforcement
- to set up research units comprising local and foreign scientists
- place natural environment protection as a top priority over leisure and economic gains
- committing our top government officials and politicians into the environment protection groups
- introduce environmental protection, wildlife and game in our school curriculum,
- set up a zoological and botanical museums for the preservation of our materials and for educational purposes, and
- mete out heavy penalties for poaching and encroaching into prohibited areas.

It can be seen that we have to look into the Rhino project not on one aspect but the natural environment overall.

When we finally become a modern and progressive country, it may be too late to save our natural environment and everything in it.

In tend to agree that the Panda from China should be an example in deciding where the Rhino should be. For a start, we can tell 'them' that the rhino stays where it belongs.

ISOB,
Kota Kinabalu

Any example of economic priority over our natural environment is the extraction of sand around Pulau Gaya, the dairy farm and golf course at Mesilau, Kundasang. The golf course is actually for leisure and of little ecohomic purpose.

Poaching is chronic problem and to treat this, we have to introduce heavy penalties and also to set up a very reliable enforcement

Reasons painfully evident says American

RECENTLY a great commotion was made over plans, which have since been cancelled, to export some rare Sumatran rhinoceroses to the United States for captive breeding.

We do not have the knowledge to assess whether the additional expertise available in the US warrants such a plan.

It would seem that IF capuve breeding is likely to increase the species' chances of survival, then it would make more sense to import the experts and attempt the breeding in the rhinos' native habitat.

What I find shocking, however, is the outrage and attention created by this plan while the reason for the rhinos' demise is ignored.

In a *Daily Express* article on August 2 Sabah Society Director urge the government to determine the reasons for the rhino's inability to reproduce at the normal rate.

The August 7 edition said that Henry Chok of the Sabah Environmental Protection Association is called for investigation into the reasons for the decline of the rhinos population.

The main cause of the decline of the rhinoceros population is painfully evident to one who travels around Sabah.

It is the paramount problem for wildlife throughout the world — habitat destruction. Huge areas of jungle have been replaced by plantations with their accompanying structures and human crews.

Erotion which follows clearcut logging operations turns forest rivers into highways of brown, silt-laden water. The sounds of the jungle are now those of the chainsaw and the diesel truck.

It is quite simple — the rhinoceros' home is taken away and it ceases to exist.

Unless the present land use policies are changed, and a habitat sufficient to support the life of Sabah's wildlife is set aside, then this magnificent animal will be added to those whose extinction has been caused by the greed of humans.

RIC OBERLINK,
Berkely, California.

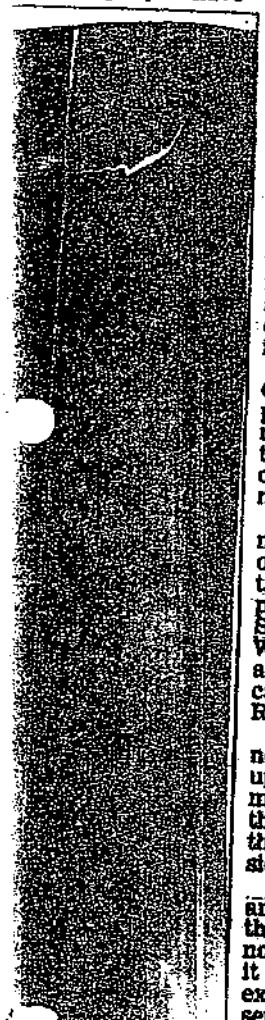
*The writer is an Attorney At Law — Ed.

Rhino supporters challenge Pairin

24/8/95 BORNEO BULLETIN

THE Sabah Government's decision to torpedo a plan to send four pairs of its endangered rhinos on a breeding loan to American zoos has been challenged.

Several people have appealed against the decision, with one objection to the Government's stance coming from Chief Minister Datuk Joseph Pairin Kitingan's brother, Dr Jeffrey Kitingan.



Dr Kitingan, who is director of the Sabah Foundation, is reported to have sent Datuk Pairin a personal memorandum, asking him to review the decision.

Earlier this month Datuk Pairin announced that the State Government would not allow the export of rhinos and that if any research or propagation of the animal is done it should be done in Sabah.

He said the State Government wished to project the endangered rhino but he believed that their best chance of survival was in their natural habitat.

The announcement made a futility of years of discussions between the Sabah Forestry Department's Wildlife Section, the Malaysia Wildlife Department and the American-based Sumatran Rhino Trust.

Those involved in the negotiations, though upset, declined to comment expect to say that they would abide by the Government's decision.

However Dr Kitingan said this week that the the matter should not be left that way as it is crucial that a near extinct species was preserved.

He said he didn't know what made Datuk Pairin decide against the plan but explained that from what he had learnt the Chief Minister was not fully aware of the details.

"My guess is his decision was made in response to the stand of Sahabat Alam Malaysian — an environmental organisation — which opposed the rhino export plan from the outstart," Dr Kitingan said.

The Forest Department and other involved agencies had not been given the opportunity to brainish the State Government with all the relevant aspects of the breeding loan plan.

Dr Kitingan said the Yayasan Sabah took the initiative to ask the Government to review its decision purely because it is interested in the preservation of endangered wildlife and also to lend support to the Forest Department.

"We should examine the implications of the export plan very carefully and given that nobody has ever done anything about rhinos before I would say that the plan would be ensuring the rhino's continued existence — a plan that can augment what can be done locally for their preservation," he said.

Dr Kitingan said his memorandum was submitted last week and that the subject was likely to be discussed at cabinet level provided Datuk Pairin agreed with the memorandum.

Rhino export issue more complex than...

21/8/85

A Sumatran Rhino

HAVING followed with interest your correspondence on the "rhino question", I can not help noticing that nobody seems to have contacted the Forest Department to find out what their proposal actually involves. In a recent phone conservation, the Wildlife Section gave answers to several questions which may be of interest to *Daily Express* readers:-

● **How many rhinos have been killed by poachers and what can be done to save them in the wild?**

The Department knows of at least 12 rhinos killed over the past few years, with another three poached already this year.

About half of the remaining total of perhaps 30 – 50 animals in the State are believed to live in the Tabin Wildlife Reserve, while the remainder are scattered throughout eastern Sabah, some of them in areas scheduled for clearance for agriculture.

With a total staff of only 35 men the Wildlife Section can only hope to reduce but not prevent the steady loss of animals.

The species is now believed extinct in Sarawak, Kalimantan, Burma, Thailand and Indochina, while about 200-500 remain in Sumatra and Peninsular Malaysia.

Improved conservation in the wild remains the top priority in every case, but the experts fear this may not be enough.

● **What was proposed in the negotiations with the American Association of Zoos?**

The negotiations began in 1982 and involved both the Sabah Forest Department Wildlife Section and the Federal Department of Wildlife and National Parks.

These led to a meeting in Singapore, in September 1984, of many interested parties under the auspices of the International Union for Conservation of Nature and Natural Resources (IUCN).

This meeting agreed, firstly, that a captive breeding programme was an essential insurance policy against the failure of conservation efforts in the wild, and secondly, that the American Association of Zoo Parks and Aquariums would collaborate in a joint programme with the Malaysian authorities, both in the Peninsula and in Sabah, while Indonesia would develop a similar programme with Howlett's zoo, in Britain. The Malaysian project would involve:-

● Financial support for conservation efforts in the wild, including further survey work and the fencing of the substantial part of one small reserve in Selangor.

● Technical assistance with the capture of animals from doomed areas in both Peninsular Malaysia and Sabah with a view to establishing a captive herd of about 12 pairs.

● Financial and technical assistance to develop the Malacca zoo as the principal Malaysian breeding site with a further smaller facility to be built from scratch at Sepilok, in Sabah.

As part of this programme, Malaysian vets and zoo staff will be sent for training on attachment to leading American zoos.

● All animals caught in the Peninsula to be kept at Malacca and the first two pairs caught in Sabah to stay at Sepilok. Hopefully, four more pairs would eventually be caught in Sabah and transferred to selected American zoos with experience in breeding rhinos.

These animals would remain the property of the State Government but on breeding Loan.

● **But is it necessary for any Sabah animals to be exported?**

The answer to this in the context of the American proposal is a firm 'yes'.

One technical reason is that it would be unwise to keep all the Sabah captures in one place because of the risk that either disease or a breach in security (the animals would need 24-hour guarding) would result in the loss of all the stock.

Furthermore, the much talked-about technique of embroy transplant requires females of other rhino species to act as surrogate mothers. This is obviously easier done in a zoo with other rhinos, as well as established laboratory facilities.

The financial reason for proposing to move some animals to American zoos is that if they are to foot the bill, ultimately by donations from the American public, they have to have something to show for it.

● **If the American zoos can not carry out the entire project here, why don't we do it ourselves?**

This is certainly an attractive possibility, but it will be expensive – costing several million ringgit over several years.

Is the State or Federal Government, or some other organization prepared to finance it?

● **What about the risks of animals dying on the long journey to America, the different climate there and the risks of trying out "unproven" techniques on such rare animals?**

These are hard questions to answer, but with due respect to pundits, the Forest Department appears inclined to accept the concensus opinion within the zoo world.

Apparently, the greatest risk to animals is from shock, shortly after capture and during local transport by road or helicopter. Moving animals further afield by air is actually quite easy and, in suitable hands it makes little difference whether the journey lasts one hour or 20 hours.

In sum, it begins to look as though the whole issue is more complicated than just whether or not to permit "export".

By all means, Sabah must insist on some local breeding here, staff training and technology transfer, but it takes two parties to collaborate.

Is it too late to hope for the Government to take a second look at this issue?. If not, does anybody have any better ideas, or is this animal simply to be allowed to retire from the newspapers into the archives?

KAWAN BADAK
Kota Kinabalu

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"My guess is his decision was made in response to the stand of Sahabat Alam Malaysian — an environmental organisation — which opposed the rhino export plan from the outstart," Dr Kitingan said.

The Forest Department and other involved agencies had not been given the opportunity to furnish the State Government with all the relevant aspects of the breeding loan plan.

Dr Kitingan said the Yayasan Sabah took the initiative to ask the Government to review its decision purely because it is interested in the preservation of endangered wildlife and also to lend support to the Forest Department.

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Sabah 'NO' to rhino export plan

Daily Express 6/8/85

KOTA KINABALU, Mon. — The State Government will not allow the export of rhinoceroses, the Chief Minister Datuk Joseph Pairin Kitingan announced here last night.

He said if there was any research or propagation of the animal to be done, it should be carried out in Sabah.

The decision comes in the wake of mounting objection from various concerned groups throughout the country, to the proposal to allow the rhinos to be taken to the United States for a breeding and research project.

It was reported last week according to the deputy Conservator of the Forestry Department in Sandakan that the agreement to send the Sumatran Rhinoceros to the US was expected to be concluded early next year.

Datuk Pairin however said last night that the 'State Government will not approve the export of any endangered species including the rhino.'

Their best chance of survival is in their natural habitat," he said.

Datuk Pairin was speaking at a graduation ceremony for tourist guides who attended a Sabah Tourist Association course.

The Sumatran rhinoceros

He said a very liberal estimate is that there are around 30 rhinoceroses left in Sabah.

Danger

But the actual number could be less as they had retreated deep into the dwindling jungle. The number of female rhinoceroses is also impossible to ascertain.

Datuk Pairin said the State Government would welcome advice and assistance in research and propagation work provided it was carried out in Sabah.

The State Government wanted to protect the rhinoceroses which was a very rare species and in danger of disappearing.

Meanwhile in a statement received today the Sahabat Alam Malaysia (SAM) in a memorandum called on the Chief Minister and the Sabah Government to review the agreement with the United States to send 4 pairs of rhinoceros for breeding to selected zoos in the US.

In the memorandum, SAM president Encik S.M. Mohamad Idris urged that a

See Page 2 Col. 6

From Page One

conservation and breeding programme be formulated in Sabah for rhinoceros and called on the State Government to support the wildlife conservation policies under the Wildlife Act of Malaysia.

Encik Mohamad Idris stressed that the rhinoceros breeding project should be initiated in Malaysia and not the US.

The proposed captive breeding programme with the signing of an agreement between Malaysia and the American Association of Zoological Parks and Aquariums (AAZPA), involves the capture of ten pairs of rhinoceros.

According to the proposed agreement, of the ten captured rhinos, the four pairs from Peninsular Malaysia would be captive bred in the Melaka Zoo.

As for the six pairs from Sabah, two were to be kept at Sepilok near Sandakan and the remaining four pairs were to be exported to selected zoos in the US.

"To allow the export of rhino on loan to zoos would contradict the recent banning of monkey export," Encik Idris added.

He also pointed out that zoo animal were highly vulnerable to epidemic diseases in the case of the gorillas at the Singapore zoo.

He said capture techniques for the rhino species were not tested and the long journey to the US might prove fatal.

He recalled that Malaysia with its own veterinary services has been able to carry out artificial insemination of cows thus producing the world's first *Selembu*.

The memo had recommended that poaching be checked and suggested imposition of heavier penalties on persons caught.

Encik S.M. Mohamad Idris also pointed out that the lack of experience and coordination and planning in opening up forests for agricultural development had resulted in unnecessary loss of wildlife.

"Forest clearing and development activities should be done with understanding and knowledge of the impact it will have on wildlife and the environment. Often animals are trapped in pockets of forest and they later cause damage to crops," he explained.

Encik S.M. Mohamad Idris also called for the implementation of the National Parks Act in Sabah so as to protect the remaining national parks and reserves.

SAM: Export rhino breeding won't work

6.8.85

Pairin: No rhinos to be exported

DATUK PAIRIN

KOTA KINABALU, Mon: The State Government has decided not to allow Sabah rhinoceroses to be exported.

Chief Minister Datuk Joseph Pairin Kitingan said last night that if there is any research or propagation of the rhinoceroses to be done it should be done in Sabah.

"The State Government will definitely not approve the export of any endangered species of animals including the rhinoceroses," he said.

"Their best chance of survival is in their natural habitat."

Datuk Pairin was speaking at a graduation ceremony for tourist guides after the latest course held by the Sabah Tourist Association.

He said a very liberal estimate is that there are about 30 rhinoceroses left in Sabah.

But the actual number could be less as they had retreated deep into the jungle.

Datuk Pairin said the State Government would welcome advice and assistance in research and propagation work and would render any available assistance.

He also said the Government intended to increase the tourist attraction at the orang utan sanctuary at Sepilok in Sandakan.

The State Government is considering building jungle trails through the reserve to enable visitors to wander in the jungle and not confine their visit to the area surrounding the entrance of the park.

Datuk Pairin said he believed visitors would derive a greater sense of satisfaction by "getting a feel of the jungle."

New Sunday Times, August 18, 1985

National Update

TIME RUNNING OUT FOR THESE RHINOS

By VISA-VEERASINGAM

An illustration of the Sum

AT LEAST eight Sumatran rhinoceroses have been killed by poachers in Sabah over the last two-and-a-half years. The figure includes three since January this year.

These are only the known cases, said Science, Technology and Environment Minister Datuk Amar Stephen Yong in an interview recently.

Sabah has 25 to 30 Sumatran rhinoceroses, a very liberal estimate if the number that had fallen victim to poachers is taken into account.

There is no information on the status of the rhinoceros population in Sarawak while in Peninsular Malaysia there are 50 to 80 animals. Sumatran rhinoceroses in Sarawak and the peninsula have also fallen victim to poachers at irregular intervals.

Except in the Taman Negara, Endau-Rompin and Sungai Dusun areas in the peninsula and the Danum Valley and Tabin Wildlife Reserve in Sabah where the rhinoceros population is considered somewhat stable, the animals elsewhere in the country are isolated and very likely to disappear, said Datuk Amar Yong.

He expressed concern that unless a comprehensive programme to save the Sumatran rhinoceros was implemented soon the species would not have a chance of survival in the country.

His Ministry is at present considering the introduction of mandatory jail terms for those caught poaching rhinoceroses. "Poachers, if caught, will be in very serious trouble. They will face a heavy penalty if convicted."

While the Wildlife and Natural Parks Department has about 1,000 employees and a Sumatran rhinoceros unit under its research division since 1974 in the peninsula, the situation in Sabah was sad.

The Wildlife Department in Sabah, being part of the State Forestry Department, is said to be not fully oriented towards wildlife management and is very short-handed with only about 30 employees.

Datuk Amar Yong is hopeful Sabah and Sarawak would be receptive to the idea of extending federal wildlife legislation to the two States.

He felt that this would benefit them in terms of facilities, training of rangers, specialist knowledge and close rapport the Ministry has with international wildlife organisations.

His Ministry is currently negotiating with the Wildlife Departments of Sabah and Sarawak.

Against this background there is the controversy over what should be done to save Malaysia's Sumatran rhinoceroses.

Much of the controversy has centred on the proposal to capture six pairs of Sumatran rhinoceroses in Sabah, of which four are to be exported to zoos in the United States as part of a captive breeding programme. The first two pairs are intended for captive breeding at Septilok near Sandakan.

Captive breeding

The Sumatran Rhino Trust of the American Association of Zoological Parks and Aquariums (AAZPA) is behind the proposal which also includes the capture of four pairs from the peninsula for captive breeding at the Malacca zoo.

The AAZPA is to provide $10 million for the project with the first $2.5 million spread over the first three years.

Only isolated rhinoceroses will be captured and the four pairs to be exported to the United States and their progeny will remain the property of the Malaysian Government in perpetuity, said Datuk Amar Yong.

In the wake of considerable opposition from local nature lovers, Sabah Chief Minister Datuk Joseph Pairin Kitingan announced the Sabah Government's decision not to allow the export of rhinoceroses from Sabah.

If there is to be any research for the propagation of the species, he said, it should be done in the State. "Their best chance of survival is in their natural habitat".

Datuk Amar Yong, who gave his views before the announcement by Datuk Pairin, said it has been ascertained the rhinoceroses were not being exported for the purpose of exhibition.

It is understood the Ministry and the Wildlife and Natural Parks Department in the peninsula are very keen on getting the project going as soon as possible.

They fear that if it is delayed for too long, they may not get the services of the only person whom they believe can capture the animals alive for captive breeding — Mr Tony Parkinson.

It is understood his services are tied to the funding promised by the AAZPA which is in turn subject to the conclusion of the agreement with the Sabah Government regarding the captive breeding programme.

Meanwhile, the only two Sumatran rhinoceroses in captivity — Jeram and Melintang (both female) — are said to be doing well at the Malacca zoo. It is hoped to capture a male for the purpose of breeding.

Local organisations concerned over wildlife feel that instead of imposing the export condition, assistance could be given to breed the animals in captivity locally. They also feel that efforts should be taken not to allow development to encroach into areas where the rhinoceros population is stable.

Natural habitat

Datuk Amar Yong said his Ministry had impressed upon the State Governments (Pahang and Johore) the need to retain the natural environment of the Endau-Rompin area to preserve the natural habitat of the rhinoceroses and help maintain the region's water resources.

Apart from this, he referred to the lack of knowledge regarding the breeding of Sumatran rhinoceroses in captivity and the plan to start "gene pools" for the Sumatran rhinoceros at the Sungei Dusun reserve.

Local expertise alone, he said, was not sufficient and some felt that facilities for captive breeding of rhinoceroses were better in the United States.

He added that if adequate local expertise was available as mentioned by one local organisation, this should be made available to the Ministry.

He referred to Peer David's deer, a species native to China which became extinct there and reintroduced from the progeny of the deer taken to Britain many years earlier.

Wildlife and Natural Parks Department Director-General Mohamed Khan Momin Khan, who is also very keen on getting the project off the ground, referred to the Arabian Oryx, an antelope native to Jordan which became extinct and was reintroduced from the progeny of those taken to Arizona.

He felt that the captive breeding programme, both locally and abroad, provides the best chance for the survival of the Sumatran rhinoceroses in the country.

He said if the captive breeding programme was successful, then steps could be taken to reintroduce the Javan rhinoceros which died out here in 1932.

Encik Mohamed Khan's final view on the captive breeding project is:

"We have got to capture the animals before it is too late."

New Sunday Times, August 18, 1985

National Update

TIME RUNNING OUT FOR THESE RHINOS

By VISA VEERASINGAM

AT LEAST eight Sumatran rhinoceroses have been killed by poachers in Sabah over the last two-and-a-half years. The figure includes three since January this year.

These are only the known cases, said Science, Technology and Environment Minister Datuk Amar Stephen Yong in an interview recently.

Sabah has 25 to 50 Sumatran rhinoceroses, a very liberal estimate if the number that had fallen victim to poachers is taken into account.

There is no information on the status of the rhinoceros population in Sarawak while in Peninsular Malaysia there are 56 to 60 animals. Sumatran rhinoceroses in Sarawak and the peninsula have also fallen victim to poachers at irregular intervals.

Except in the Taman Negara, Endau-Rompin and Sungai Dusun areas in the peninsula and the Danum Valley and Tabin Wildlife Reserve in Sabah where the rhinoceros population is considered somewhat stable, the animals elsewhere in the country are isolated and very likely to disappear, said Datuk Amar Yong.

He expressed concern that unless a comprehensive programme to save the Sumatran rhinoceros was implemented soon the species would not have a chance of survival in the country.

His Ministry is at present considering the introduction of mandatory jail terms for those caught poaching rhinoceroses. "Poachers, if caught, will be in very serious trouble. They will face a heavy penalty if convicted."

While the Wildlife and Natural Parks Department has about 1,000 employees and a Sumatran rhinoceros unit under its research division since 1974 in the peninsula, the situation in Sabah was sad.

The Wildlife Department in Sabah, being part of the State Forestry Department, is said to be not fully oriented towards wildlife management and is very short-handed with only about 30 employees.

Datuk Amar Yong is hopeful Sabah and Sarawak would be receptive to the idea of extending federal wildlife legislation to the two States.

He felt that this would benefit them in terms of facilities, training of rangers, specialist knowledge and close rapport the Ministry has with international wildlife organisations.

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29 JULY 1985

KL seeks control over Sabah wildlife

KUALA LUMPUR, Sun. – The Science, Technology and Environment Ministry is negotiating with the wildlife departments in Sabah and Sarawak to extend federal wildlife legislation to the two states, Minister Datuk Amar Stephen Yong said today.

He hoped the states would be receptive to the idea as it would be of benefit to them in terms of facilities, training of rangers, specialist knowledge and the close rapport the ministry had with international wildlife bodies.

He was speaking to reporters after opening the Kwong Yee Memorial Building at the Kwong Tong Chinese cemetery situated in Jalan Lapangan Terbang Lama here.

Datuk Amar Yong said a common legislation would also give the federal government a say in the export of endangered species of wildlife.

RHINOS

He had recently said that the federal government had no say in the Sabah government's reported move to allow the export of four pairs of the Sumatran rhinoceros to the United States for breeding but assured that the animals in the Peninsula would not be exported.

Earlier in his opening address, Datuk Amar Yong encouraged Malaysians to opt for cremation rather than burials because of the shortage of land, especially in the Federal Territory.

He said cremation was cleaner, less expensive and the land saved could be used for development.

Datuk Amar Yong suggested that crematoriums be privatised to provide better and modern facilities.

The Kwong Yee Memorial Building was built at over $3 million. – Bernama

2/Aug/85
Daily Express

Sabah Societ against rhino pla

By MALCOLM S

KOTA KINABALU, Thurs. — The Sabah Society, an organisation dedicated to the preservation of wildlife and the environment has joined in the growing protest against the Government's plans to send our Sumatran rhinoceros, an endangered species, to the United States for 'captive breeding.'

Describing the plans as 'risky', Sabah Society officials who declined to be named, said the Malaysian government had no way of telling if the idea would work. And if the plan failed, it would further reduce the existing numbers of the species.

The Society stressed that the conditions here were much more favourable for research than in the United States, thus side stepping the need for acclimatisation.

They gave as example the giant pandas of China, which were given to a number of zoos around the world. Most of the animals died after a short time.

The Society suggested that it would be better if the breeding process is done here but financed by the American Association of Zoological Parks and Aquariums (AAZPA).

This, they said would not only be more practical, but would also result in considerable savings.

They urged the Government to determine, in the first place, the reasons for the rhinos' inability to reproduce at the normal rate. They added that the answer may be at hand but "we fail to see it."

It was also learnt that sometime last year, a similar species was kept in the Malacca Zoo for the same purpose. The results of that experiment is not known and neither is the fate of the animal.

Our report yesterday

Unite for succeed | 80 Girl

Foresters back rhino plan

THE Sabah Forestry Department looks set to throw its weight behind an agreement to send four pairs of rhinos to zoos in the United States.

Although Deputy Conservator Mr Millerd Munang said the department was still studying the terms of the agreement, he made no bones of the fact that in his view it was likely to be accepted.

"Why shouldn't we go through with it?" he said.

"The only alternative would be to do nothing. The era of man's positive interference in nature has come to Sabah, as against the poachers' negative interference.

"We are interested only in the salvation of the rhino and this is what we are looking for.

"I believe that if we accept the plan we will have, first, access to responsible and sophisticated wildlife management, and, second, the chance to improve people's awareness that the Forestry Department is involved in conservation and doesn't just look after forests."

Mr Munang said Sabah lawyers were still studying the legal aspects of the plan.

No date or venue had been fixed yet for the signing of the agreement between the Sabah Forestry Department and the Wildlife Department in Kuala Lumpur, and the Sumatran Rhino trust, set up by the American Association of Zoological Parks and Aquariums.

Mr Munang said it was a pity wildlife preservation was a low priority in Sabah, compared with timber.

"The plan will cost us nothing," he said. "There will be no financial input as far as the State Government is concerned.

"But a lot of money will be spent by the Americans and Kuala Lumpur."

Apart from the four pairs of rhinos to be sent to the United States, the first two pair to be captured in Sabah will be kept at the Sepilok Research Station near Sandakan, while four pairs to be captured in Peninsular Malaysia will remain at the Malacca Zoo.

"They'll teach us what to do about captive breeding," Mr Munang said. "There is no veterinarian in Sabah who can look after wild animals and whatever expertise this agreement offers can only be to the good of the State.

"We are dealing with a species that is on the verge of extinction. We are working on an experimental basis and will need all the help we can get from countries more advanced in this field."

27 July 1985

Borneo Bulletin

3 August 1985

Borneo Bulletin

Sabah rhino export plan on slow path

NONE of Sabah's endangered rhinos is likely to leave the State in a hurry as a plan to send four pairs to American zoos is not expected to be finalised until early next year.

Two weeks ago it was thought that an agreement hammered out by the Wildlife Department in Kuala Lumpur, the Wildlife Section of the Sabah Forestry Department and the United States-based Sumatran Rhino Trust would be endorsed by the end of this month.

It is now becoming obvious that the wheels of officialdom are turning slowly, with Sabah Government officials making it clear the so-called agreement will still come under close scrutiny before it will get the official green light.

The deputy conservator of forests, Mr Millerd Munang, said the plan was being studied by his department and would then be handed over to the State Attorney-General's office "for further deliberations."

"After that the agreement will have to be discussed at Cabinet level and I would think this could take some time as it would have to wait to be included in a Cabinet meeting agenda," Mr Munang said.

"We have had a change of government and I should imagine it will take a while before the new Cabinet gets around to discussing the rhino pact.

"I would therefore think the possibility that it will be ratified before the end of this year can be safely ruled out.

"It is more likely to be some time early next year."

Meanwhile, the Federal Government wants its National Parks Act to be extended to Sabah and Sarawak, both of which are currently operating under local State laws: the Wildlife Protection Ordinance in Sarawak and the Flora and Fauna Conservation Ordinance in Sabah.

In a telephone interview from Kuala Lumpur this week, the Minister for Science, Technology and the Environment, Datuk Amar Stephen Yong, told the Bulletin his department had approached both State governments on the subject several months ago, but had received no reply so far.

"We are now following up our earlier correspondence," he said.

"Extending Federal wildlife legislation to Sabah and Sarawak would have several major advantages in terms of the provision facilities, the training of park rangers, specialist knowledge and the close relationship my department has with wildlife organisations internationally.

"It would also give us a say in the export of endangered species from both States."

Datuk Amar Yong stressed that this didn't mean he or his department were against the rhino plan.

"We were represented at the initial negotiations and in fact we feel the plan is a good thing, especially in view of the fact that the Sumatran rhinos are near-extinct in Sabah," he said.

"A survey conducted nine years ago in Sabah showed there were only 25-35 of them left then and that number is likely to be even smaller today.

"We know of at least eight poachers have killed in Sabah during the past two-and-a-half years alone".

Datuk Amar Yong said he was confident the Sabah Government had considered all points in planning the rhino agreement.

"But I would like to stress that we would like to share our facilities with both states — under unified legislation," he said.

"Just as an example, as big as Sabah is, it has only about 30 park rangers while smaller Peninsular Malaysia has more than 1000.

"If the Federal legislation is extended to Sabah and Sarawak, we can help to train more rangers in both states."

DAILY EXPRESS Thursday 1st August, 1985

Abort Rhino plan says SAM

KOTA KINABALU, Wed. – The Malaysian government has been strongly urged to abort proposed plans to send Sabah's rhinoceros to the United States for "captive breeding".

This call was made in a memorandum sent to the Prime Minister Datuk Seri Dr. Mahathir Mohammad, Chief Minister Datuk Joseph Pairin Kitingan, the Minister of Science, Technology and Environment Datuk Amar Stephen Yong and to the Director-General of the Department of Wildlife Encik Mohd. Khan Momin Khan, by the Sahabat Alam Malaysia (SAM).

SAM, an independent environmental organisation, said that the proposed agreement between Malaysia and the American Association of Zoological Parks and Aquariums (AAZPA) would result in this country losing its national heritage.

Datuk Amar Stephen

Citing the dangers of captive breeding, SAM said the use of zoos for conservation of wild animals is still a new concept and it might not work for the rhino, which is an endangered species.

Also, the operation required in an embryo transplant is not only delicate but also requires sophisticated technology. It has no tested success so far.

SAM suggested that the veterinary services, in its successful artificial insemination of cows could may be simulate that process on the rhino.

In giving weight to the idea of local breeding, SAM said that our local pool of scientists, zoologists, scientific expertise, personnel and zoological facilities was sufficient to carry out the project ourselves.

SAM also suggested that heavier penalties be imposed on poaching which added to the rapid decline of the rhinos.

SAM also appealed to the Ministry of Science, Technology and Environment and to the department of Wildlife and National Parks to review the whole proposal.

Rhino deal by early next year

SANDAKAN, Wed. – An agreement to send the Sumatran rhinoceros, an endangered species, to the United States from Sabah is expected to be reached early next year, according to an official of the Sabah Forestry Department today.

Deputy Conservator of the Department, Encik Millard Munang, said today discussions on the matter were still on-going and the agreement should be reached provided there were no major problems.

The agreement will be between the Sabah Forestry Department, the Wildlife and National Parks Department in Kuala Lumpur and the Sumatran Rhino Trust, set up by the American Association of Zoological Parks and Aquariums.

He said it could only be signed after it had been approved by the State Cabinet. However, the matter has yet to be submitted to the State Cabinet as discussions among the parties concerned have not been finalised yet.

(ALSO SEE PAGE 2)

Encik Munang stressed that the rhinos, however, would still belong to the Sabah Government and "at present, we are awaiting public response to the whole project of sending the rhinos to the United States."

He said his department was also studying the terms of the agreement and Sabah lawyers were going through the legal aspects of the plan.

According to the plan, four rhinos will be captured and two will be kept at Sepilok here while the remaining pair will be sent to the United States.

Encik Munang said the plan was an international effort and would not cost the Sabah Government any money.

He said the plan would also provide for acquisition of American expertise in designing an enclosure for the breeding of rhinos at Sepilok.

Meanwhile it is learnt that Science, Technology and Environment Minister, Datuk Amar Stephen Yong, will make an announcement on the the Federal Government's decision on the matter some time this week.

The minister had initially announced that rhinos from Peninsular Malaysia would not be sent to the United States under the plan. – Bernama.

DAILY EXPRESS 1 AUGUST 1985

Forest Department,
P.O.Box 311,
Sandakan,
Sabah.

28 August 1985

Mr Ken Scriven,
WWF Malaysia,
P.O.Box 10769,
Kuala Lumpur.

Dear Ken,

Re: Press Release by WWF Malaysia on the issue "Captive breeding to save the endangered Sumatran Rhinoceros from extinction: the case for sending Sabah Rhinos on breeding loan to U.S. zoos".

I enclose a draft press release with this title. You may well wish to reduce the length of both the title (to something like "Captive Breeding of endangered Sabah Rhinos") and the text. Points 1-10 cover various topics brought up by critics of the plan. In point 11, where WWF Malaysia's stand is summarised, it is important that the final phrase "provided that future actions ..... agreement reached to date." is included. This is (more-or-less) the phrase used in the IUCN official endorsement by Kenton Miller.

Regards,

J. Payne

Press Release from World Wildlife Fund Malaysia

CAPTIVE BREEDING TO SAVE THE ENDANGERED SUMATRAN RHINOCEROS FROM EXTINCTION: THE CASE FOR SENDING SABAH RHINOS ON BREEDING LOAN TO U.S. ZOOS

Recently, news of a proposal for captive breeding of the endangered Sumatran Rhinoceros has come to public notice. One aspect of the plan, the placing of some Rhinos from Sabah in U.S. zoos has been the focus of attention. A number of observers have made comments on the plan and all have chosen that particular aspect for criticism.

World Wildlife Fund Malaysia (WWF Malaysia) is an organisation which provides funds, educational materials and technical advice on matters relating to conservation in Malaysia. WWF Malaysia has been involved in several conservation projects in Sabah in recent years, although it has no involvement in the proposed Rhinoceros captive breeding plan.

WWF Malaysia has links with the International Union for Conservation of Nature and Natural Resources (IUCN), the organisation concerned with providing scientific advice on international conservation issues.

WWF Malaysia is in a position to offer the following comments relating to captive breeding of the Sumatran Rhinoceros and to the plan to place some Sabah Rhinos in zoos outside Malaysia.

(1) Urgent measures are required to save Sabah's Rhinos from extinction. This has come about because of excessive hunting and, more recently, rapid clearance of forest for agricultural development. The present situation is that there are believed to be several tens of Rhinos remaining in the wild. All available evidence points to the rate of illegal killing of Rhinos exceeding the birth rate.

(2) Last year, the Sabah government established Tabin Wildlife Reserve for the protection of the Rhino in its natural habitat. This was a timely and important move, but the Rhinos are still at risk from poachers, as well as genetic inbreeding because the population is small. When this Reserve was created, there were estimated to be 20 Rhinos present within its boundary. It is reported that since that time, 5 Rhinos have been killed in or near to Tabin Wildlife Reserve. Clearly, it would be wise to form a captive breeding population as a back-up to the wild population so perilously at risk.

(3) Formation of a captive breeding population would be by taking those Rhinos stranded in areas allocated for agricultural development, which will die without breeding if not caught.

(4) The idea of captive breeding to save endangered species is not new. One example is the Arabian Oryx, which was caught and bred in American zoos, and released back into its native habitat after it had become extinct in the wild. Another example is the Pere David's Deer which has been bred in captivity for over 200 years, and moves are underway for re-establishment in its native habitat in China, where it is now extinct.

(5) International cooperation in saving endangered species has advantages over one country trying it alone. Such advantages include:
(a) pooling of expertise and technical resources,
(b) better chances of sustained interest and funding over the many years needed for the success of the project,
(c) less pressure for funding from the home government,
(d) spreading the risk of disease,
(e) furthering of international links generally.

(6) As a group, the U.S. zoos probably lead the world in expertise and facilities for breeding rare, exotic, wild animals in captivity. It is indeed true that Malaysia has its own pool of experts in breeding large animals, but these people often have prior committments to their universities and government departments, and to the breeding of domestic species for meat.

(7)The question of climate has been shown over decades of experience not to be an important factor in breeding large wild mammals in captivity. Zoos in temperate climates have successfully bred many African and Indian Rhinos taken from tropical climates.

(8) With regard to specific techniques used to enhance breeding rate of critically endangered species such as this Rhino, both artificial insemination and embryo transplant might be attempted. The latter technique involves placing embryos into the womb of different but related animals. It has been used successfully to help save a rare African antelope called the Bongo, where a common species, the Eland was used as the "surrogate mother" for Bongo embryos.

(9) It is important to realise that breeding of a small number of Rhinos over merely a few years will not be of much help in saving the species. This is mainly because of the adverse effects of genetic inbreeding. What is needed is a fairly large population built up and sustained ob over generations. The Rhino plan envisages development of an "international population", with all captive individuals on loan from the home country. It is intended that captive-bred Rhinos will be released into the wild in the future, when adequately protected Reserves have been developed.

Such Reserves need not necessarily be in Sabah alone, but might include other areas such as Sarawak or Kalimantan from where the Rhino has already been hunted to extinction.

(10) IUCN has officially endorsed the proposal of an international plan for conservation of the Sumatran Rhino, which includes provision for the loan of Sabah Rhinos for breeding in U.S.A.

(11) ~~WWF Malaysia is satisfied that the U.S. zoos involved in the proposal are genuinely interested in the conservation of Sabah's endangered Rhinos.~~ While concurring with IUCN that conservation of the species in its natural habitat is of first priority, WWF Malaysia agrees that formation of an international captive population is a realistic and way of ensuring the Rhino's survival, fully worthy of support, provided that future actions are in accord with both the spirit and letter of the provisional agreement reached to date.

A CONSERVATION PLAN FOR THE ENDANGERED SUMATRAN RHINOCEROS

Forest Department,
Sandakan.

August 1985

Background

The Sumatran Rhinoceros occurs in Peninsular Malaysia, Sabah and Sumatra. It is endangered with extinction in all three areas, as a result of excessive hunting. The Rhino found in Sabah is a different sub-species from that occurring elsewhere: the scientific name is Dicerorhinus sumatrensis harrissonii.

In Sabah, it is estimated that 30-50 individuals survive. Each year, at least two are killed. Death rate is higher than birth rate.

Tabin Wildlife Reserve was gazetted in 1984 to conserve this species. However, the small number of Rhinos in this Reserve, risk of genetic inbreeding, continued relogging of logged forest, and inadequate staffing to prevent poaching mean that Tabin may not be adequate to save the species from extinction.

At least 10 Rhinos are living outside Tabin in areas which are progressively becoming isolated from the breeding population. They are doomed to die without breeding.

In 1983, a plan was drawn up to catch these Rhinos for captive breeding. It was suggested that assistance be sought from U.S. Zoos to provide expertise and funds, including the provision of some Sabah Rhino on breeding loan to participating Zoos. In 1984, following a meeting in Singapore at which many interested parties were represented, approval by the appropriate international authority, the International Union for Conservation of Nature and Natural Resources (IUCN) was obtained.

Evidence of the critical state now faced by the Rhino, and details of an international plan to save the species, may be found in attached documents. Within Sabah, the two key aspects to conserving the species are: (a) better protection of Tabin Wildlife Reserve; at present protective measures are inadequate, (b) capture of doomed Rhinos, isolated by land development, so that they may contribute to the survival of the species.

Protection of the Tabin Wildlife Reserve Rhino population

The Rhinos in Tabin can be hunted easily because the Game Branch, Forest Department, does not have enough staff to provide protection. Whereas Sabah Foundation, for example, has in the past provided nearly 30 staff to protect its timber concession in Tabin, Game Branch has two staff guarding on a part-time basis. Furthermore, logging and relogging of logged forest continues in Tabin Wildlife Reserve, without consideration of the habitat requirements of the Rhinos.
Rhinos do not wander at random but instead each individual is confined to a particular "home range". The Tabin Rhinos have to suffer continuous disturbance in the form of (1) partial destruction of the home range, so that individuals have to wander

into the range of another Rhino, (2) access to mineral sources (vital for Rhinos) blocked by logging activity, (3) decreased opportunities for breeding.
The presence of logging roads throughout the Reserve makes access for Rhino poachers very easy and there is no doubt that poaching, if not checked more thoroughly than at present, will cause the extinction of the Rhino both in Tabin Wildlife Reserve and throughout Borneo.

Ideally, all logging should cease in Tabin Wildlife Reserve at the earliest possible opportunity and a guard force of at least ten men be stationed there on a full-time basis.

Capture of doomed Rhinos to form a breeding population

In view of the situation outlined above, it would seem wise to form a captive breeding population of Rhinos, made up of individuals living in areas allocated for agriculture and thus doomed to die through loss of habitat and poaching.

An international plan to save the Sumatran Rhino from extinction, both in Sabah and elsewhere, was drawn up at a meeting held in Singapore in October, 1984, hosted by Singapore Zoo, and under the auspices of the International Union for Conservation of Nature and Natural Resources (IUCN). Participants came from the Department of Wildlife and National Parks (Peninsular Malaysia), Sabah Forest Department, P.P.A. (the Wildlife Conservation Department of Indonesia), the American Association of Zoo Parks and Aquariums, a British Zoo, Singapore Zoo and IUCN.

The plan proposed a dual agreement whereby a group of U.S. Zoos would provide technical expertise and funding for Malaysia (including Sabah), while the British Zoo would similarly assist Indonesia.

A copy of a draft agreement between Malaysia (represented by the Department of Wildlife and National Parks, Peninsular Malaysia, and the Sabah Forest Department) and the U.S. Zoos (represented by the Sumatran Rhino Foundation) is attached. Main points of the draft agreement are:

(1) The U.S. Zoos agree to provide funding and technical expertise for capture of doomed Rhinos in Peninsular Malaysia and Sabah, and facilities for captive breeding at Melaka Zoo and Sepilok (near Sandakan).

(2) The agreement will be for 3 years, to be extended if desired by all three parties.

(3) In Sabah, the first two pairs of Rhinos caught will remain at Sepilok. Subsequent pairs (up to 4 pairs) will go to U.S. Zoos on breeding loan. Once a sizeable breeding population has been established in U.S. Zoos, offspring will be sent back to Sabah for release into adequately protected

areas. (If desirable, they may be released in such areas in Sarawak or Kalimantan).

(4) The project will be done in a spirit of mutual agreement, the main aim being to save the Sumatran Rhino from extinction, especially in Sabah where it is most vulnerable.

(5) The U.S. Zoos also provide funding to increase the guard force for Tabin Wildlife Reserve and opportunities for Sabah staff to visit the U.S. facilities.

(6) The U.S. zoos provide funding and expertise for studies of Rhinos in their natural habitat in Sabah, in order to provide data for better captive propogation, as well as for management in the wild.

This plan was welcomed by wildlife experts familiar with the plight of the Rhino for the following reasons:

(a) The U.S. zoos can provide the finest technical expertise available for care of Rhinos. With such an endangered species, this would seem logical.

(b) Most of the costs of the project would be supplied by the U.S. zoos. In view of the large budget required, for a project which has little benefit to Sabahans yet is so important, this would seem to be a crucial factor.

(c) The U.S. zoos could start operating immediately. Starting the project was urgent two years ago - now it is critical.

(d) With international approval and support, especially by IUCN, the project would not draw criticism, and would focus attention on Sabah, useful for both international prestige in conservation circles and for boosting tourism prospects.

(e) With international input, funding and interest could be sustained over many years, irrespective of possible changes in Sabah state policy.

Instead, inaccurate reporting of the proposal within Malaysia drew adverse criticism from various sources unfamiliar with the Rhino situation in Sabah. Various specific criticisms have appeared in the press, all of them inaccurate or unfair. They are clarified in the following section.

Answers to critics' claims against loan of Rhinos to U.S. zoos

(i) Rhinos are our natural heritage and thus should stay in Sabah

Such critics have never objected to Rhinos being killed and the

offenders not being prosecuted because proof of the offence is impossible, nor have they suggested how to prevent this leading to the extinction of the Rhino. Neither have they objected to millions of trees - the habitat of the endangered Rhino - being exported. Rhinos cannot be saved in Sabah if their habitat is not properly cared for.
The whole point of providing Rhinos on breeding loan to foreign zoos is to save Rhinos which Sabah itself is unable to protect under current circumstances, and to allow them to breed for future return when conditions are suitable. The plan calls for capture only of Rhinos which are doomed to die.

It may be added that China, with its vast resources, has exported its endangered Pandas for breeding in various foreign zoos and gained positive international attention as a result. It is true that at least two such Pandas have died (one of old age), but all animals die at some stage, by hunting or disease, if not natural causes.

(2) Rhinos should be conserved in their natural habitat in Sabah, the most appropriate place for them

This would be ideal under ideal conditions. The natural habitat of Rhinos is disappearing, however, to make way for agriculture, while permanent Forest Reserves, including Wildlife Reserves, undergo continuous logging. These activities have been disrupting the Rhino population for two decades, inhibiting breeding. Furthermore, and even more serious, poaching cannot be controlled. Calls for preventing poaching are unrealistic. Many, possibly most, people who have the chance to kill a Rhino while out hunting will take the opportunity to do so. Some poachers go with dogs specifically to hunt Rhinos. To be realistic, poaching could only be controlled if: all guns are prohibited in Sabah (including Police); a massive guard force is employed; persons caught with evidence of having killed a Rhino are given a mandatory sentence of life in jail.

(3) Why should Rhinos be sent to U.S.A?

The captive breeding project as envisaged would be an international project. U.S. zoos became involved because of three factors considered critical for success: (a) sustained availability of funding the American Association of Zoo Parks and Aquariums represents a network of some of the most richly endowed zoos in the world which operate for propogation of animals in captivity, independently of governments, (b) the finest array of respurces for captive breeding of wild animals, with contacts not just in U.S.A., but throughout the world, and (c) willingness to act immediately.

(4) Such a project has never been attempted before

This objection is false. At least two previously endangered species have been saved from extinction by means of captive breeding in foreign zoos. The Arabian Oryx (an antelope) and

Pere David's Deer (from China) became extinct in the wild, and exist now only because captive populations had been formed in U.S.A. and U.K. respectively before those in the wild disappeared.

(5) Why should Rhinos be exported from Sabah but not Peninsular Malaysia

There are two reasons why, in the plan evolved between the parties involved in the proposed captive breeding project, Rhinos would be allowed out of Sabah but not Peninsular Malaysia. Firstly, the Sabah form is a different sub-species, which should not be mixed with the Peninsular form for breeding. Thus, Sabah Rhinos would be propogated in Sabah and U.S.A., while Peninsular Rhinos would be propogated in Peninsular Malaysia. Secondly, Peninsular has much superior resources locally than does Sabah. The National Parks and Wildlife Department there has over 1,000 staff (compared to Sabah's 35 staff). The Institute for Medical Research, Universiti Pertanian Malaysia and Singapore Zoo are all within road access of Melaka Zoo to provide quick back-up. Thus, Peninsular Malaysia has much less need of sustained help from outside experts.

(6) Rhinos may die during capture, transportation or in zoos to which they are not accustomed

The Rhinos will die anyway, from poaching. It is true that risks of death or injury are present, but the U.S. zoos proposed for this project have among the best records in the world for care and breeding of tropical mammals.

(7) Techniques proposed by the U.S. zoos to enhance breeeding success (artificial insemination and embryo transfer) have not been tried

This criticism is false. Both techniques have already increased breeding success of rare tropical mammals in U.S. zoos. Embryos of the Bongo, a rare African forest antelope, for example, have recently been transferred into female Elands, a common plains antelope, and successfully produced young Bongo.

(8) If U.S. zoos want to help conservation, they should finance the project entirely within Sabah

Some thought will reveal that this is an unreasonable expectation. It has already been raised in lengthy discussions with the U.S. zoos, and rejected as not feasible. The zoos will be investing millions of dollars. They must recoup some of that money by increased visitor attendance, which would result from the presence of Rhinos in their zoos. The transfer of facilities, breeding technology and personnel to Sabah would increase costs enormously, yet the zoos themselves have no guarantee of long-term support within Sabah.

(9) Breeding should be initiated in Malaysia

Under the plan already drawn up, the project would start in Malaysia. At least one pair would be retained at Sepilok before others are allowed to leave the country. Also, several pairs would be kept at Melaka Zoo.

Note that plans for a zoo near Kota Kinabalu and Sandakan were drawn up in 1981, but still have not succeeded. Also, that Zoo Negara runs at an enormous loss and is in continuous financial difficulties, even with support by government and private donors. Under conditions such as these, it cannot be guaranteed that a project lacking international input would succeed.

(10) To allow export of Rhinos would contradict the recent banning of monkey export

This comment reveals a misunderstanding of the whole situation. The export of monkeys was banned because they are used for medical and war-related research, and because such a business can provide lucrative returns for unscrupulous individuals, leading to over-exploitation of the wild monkey population.

(11) Zoo animals are vulnerable to epidemic disease

This is a valid point, but the critic fails to realise that it is a major factor in support of (not against) breeding loan to U.S. zoos. If all Rhinos were to be kept in one state, disease might well wipe them all out. By having a breeding group elsewhere, such a risk is minimal.

(12) Capture techniques have not been tested

This is a false claim. The technique to be used (stockade traps) has been used successfully on Rhino and Tapir in Malaysia, and on many other large forest mammals in other countries. It is safer than any other technique for the capture of large mammals.

(13) Local zoologists and facilities are capable of carrying out the project

As far as the Sabah Forest Department is aware, there are no Malaysians with experience of successfully breeding rare large mammals in captivity on a long-term, sustained basis. There are some with experience of breeding on a short time-scale, and with better-known species, but such experts are have other duties in universities or Veterinary Departments.

(14) The Malaysian Veterinary Departments can carry out artificial insemination

This may be so, but artificial insemination is only a small component of the plan, and neglects to consider both funding and other responsibilities of the government departments.

(15) The climate is more suitable in Sabah

Zoologically, this is not particularly valid. Rhinos have great problems with body heat regulation in a tropical climate because of their massive size; this is why they live inside forest cover and spend much time wallowing in mud pools. Furthermore, experience has shown that climate is not a problem in breeding tropical species in temperate climates. Many tropical animals have bred in captivity in cold climates, but very few have bred in captivity in tropicl climates.

(i6) Doomed Rhinos might better be translocated to protected Reserves or Parks in Sabah

This seems to be an attractive option but it is unlikely to help the Rhino for the following reasons:

(i) When large mammals are translocated, they usually try to walk back to the area from which they were taken.

(ii) It cannot be overemphasised that poaching is a critical problem: every time a Rhino is killed, survival prospects for the species in Borneo are reduced by significant extent. News of translocation would attract poachers.

(iii) Even if a translocated Rhino stays in place and is not poached, it may be rejected by resident Rhinos.

(iv) There is no point in translocation if its success, or otherwise, cannot be monitored. In this case, it would be necessary to put radio-transmitters on the Rhinos and monitor from a helicopter.

(v) There is no obvious suitable area for translocation at present.

The alternative option - Capture for Captive Propogation within Sabah

The aim of the project would be to build a group of 10 Rhinos for breeding. A smaller number is likely to lead to genetic inbreeding problems. The project would run indefinitely, to produce a self-sustaining population, with eventual release of offspring into the wild, when protective measures are adequate.

The cost of such a project is estimated at about M$3.8 million for the first 3-year period (see attached budget). Donations could be sought from outside Sabah, but cannot be expected automatically. If government can guarantee a proportion of the funds required, there would be a case for a fund-raising publicity campaign in European and North American countries.

As additionaal components to such a plan to save the Rhino, it is recommended that the guard force for Tabin Wildlife Reserve be

increased and that legislation be amended to provide for a mandatory jail sentence for anyone in possession of parts of a Rhinos. It is also suggested that a start be made to progressively reduce the number of fire-arms in Sabah and to phase out relogging in Tabin Wildlife Reserve as soon as possible.

Budget for Captive Breeding of Rhinos in Sabah

Establishment Costs	M$
(a) Capture Operation	
4-wheel drive vehicles (2)	80,000
Trap materials	20,000
Camping equipment	5,000
Radio-contact system	10,000
10% contingency funds	11,500
Sub-total:	126,500
(b) Captive Breeding Facility	
Paddocks, housing etc.	300,000
Staff quarters	300,000
Vehicle	40,000
20% contingency funds	128,000
Sub-total:	768,000

Running Costs (per year)	
(a) Capture Operations	
Vehicle running costs	14,000
Operation Manager (salary/expenses)	60,000
Assistant	24,000
3 Capture Teams (18 staff)	216,000
Staff travel expenses	20,000
Insurance	5,000
Hire of helicopter for survey of capture areas	25,000
Vehicle hire for transportation of Rhinos (incl. tractor hire for road making, and helicopters)	150,000

Food/medical care	5,000
Emergency veterinary care	15,000
Rental of house for oeprations base	18,000
Bonus for successful capture (assumes 20% of yearly salary, 2 Rhinos per year)	115,000
10% contingency funds	66,700
Sub-total:	733,700

(b) Captive Breeding Facility

Unit Director	48,000
Assistants (2)	36,000
Security Guards (4)	48,000
Staff travel expenses	10,000
Bonus for successful care (10%)	13,000
Food/medical supplies	30,000
Vehicle Maintenance	7,000
Maintenance of buildings	10,000
20% contingency funds	40,400
Sub-total:	242,400

Cost for First 3-year period

Capture/transportation	2,327,600
Unit Maintenance	1,495,200
Total:	3,822,800

Additional costs

Ecological research into wild Rhinos	100,000
Release programme for captive-born Rhinos	300,000

Borneo Bulletin

LARGEST AUDITED CIRCULATION OF ANY NEWSPAPER IN BRUNEI, SABAH AND SARAWAK

40 cents | 20/July/1985 | VOL. 33 No. 12

Sabah set to sign pact on rhino

A PLAN to send four pairs of Sabah's endangered Sumatran rhinos to zoos in the United States on a breeding loan looks set to be finalised by the end of this month.

After years of exhaustive discussions, a comprehensive agreement has been reached by the Malaysian Wildlife Department in Kuala Lumpur and the Wildlife Section of the Sabah Forestry Department with the Sumatran Rhino Trust set up by the American Association of Zoological Parks and Aquariums.

Sabah wildlife officials involved in the negotiations have refused to comment on the agreement which apparently needs only the green light from the new State Government to become official.

One man who has been close to the whole deal is the Director of Singapore's Zoological Garden, Mr Bernard Harrison.

"The agreement has not been finalised yet, but I believe it will be in the next few weeks if there is no adverse reaction from the public," Mr Harrison said.

"I was involved in the discussions as a member of the so-called Captive Breeding Specialists' Group.

"The agreement itself is quite fair, but I suppose it is up to the Sabah State Government to accept the terms or to change them."

The Captive Breeding Programme aims at capturing 10 pairs of rhinos from the wild, six in Sabah and four in Peninsular Malaysia.

The six pairs from Sabah will represent the Sumatran rhino's Borneo sub-species.

The first two of them will remain in Sabah, at the Sepilok Research Station near Sandakan, for breeding purposes.

The other four pairs will go to the United States, with the Los Angeles, San Diego, Bronx and Cincinnati zoos getting one pair each.

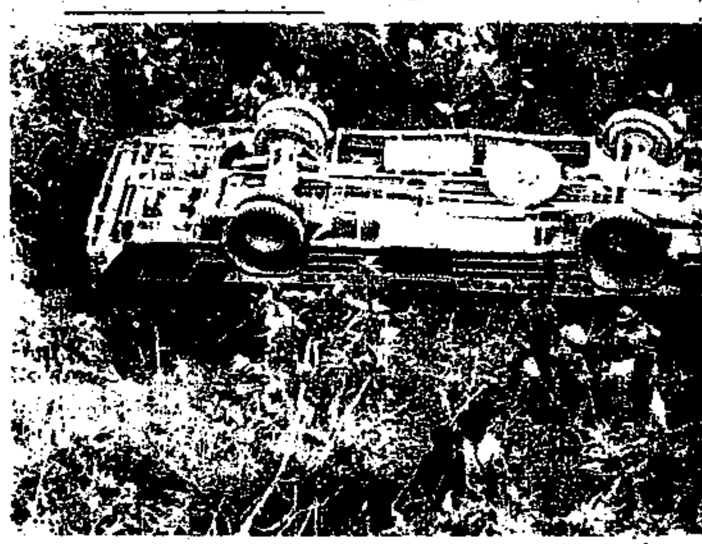
The four pairs from Peninsular Malaysia will be kept for breeding at the Malacca Zoo.

In return for allowing the rhinos to go to the United States, the Americans have agreed to help in the preservation of the wild rhinos and will transfer breeding technology to Malaysia.

This will cost them about $2.4 million in the first three years of the project which is expected to take up to 20 years to be successful.

Mr Harrison said only about 28-38 wild rhinos were left in the wild, with poachers continuing to take their toll.

Four [illegible] 10 hurt [illegible] bus plun[illegible]



FOUR people died and 10 were injured when this express bus plunged 30 metres into a ravine at Kilometre 17 on the Oya Road last week.

The bus was carrying 45 passengers and was on its way from Sibu to Mukah when it went out of control on a steep slope.

Police said two of the victims were thrown out of the bus. Two bodies were found pinned under the vehicle which landed upside down at the bottom of the ravine.

The dead were Boniface Bunyie anak Bandiam, 20, of Rumah Be-Bou in Song, Jumat Japar, 19, of Kilometre 13 Bintulu-Miri Road, Belle anak Asun, 22, of Balingian, and Siew Chi Ming, 26, of Sibu.

Several of the injured trapped inside the bus were cut free by police and firemen who were rushed to the scene from Sibu.

Water supply sinks firemen

THE State Assemblyman for Lundu, Mr Ramsay Jitam, has called for an urgent review of fire hydrants in Kuching following a disastrous fire which destroyed a row of 11 shophouses at Mile 4 in Penrissen Road.

Firemen took more than two hours to get the blaze under control — equipped with the latest turntable ladder and two modern fire engines but virtually impotent because of a lack of water pressure.

There were only two fire hydrants in the immediate vicinity and the confusion of the firemen was obvious as they stood around helplessly holding limp water hoses.

Damage has been [illegible] have started in a plastics workshop, the fourth unit in the row.

The Fire Department was alerted within five minutes, but the blaze spread quickly to the rest of the shophouses.

Watching the fire race through the block, Mr Jitam said it could have been controlled much quicker if there had been sufficient water pressure.

Five of the shophouses were reduced to ashes, four were almost beyond repair while the two remaining ones were slightly better off.

Two furniture workshops fuelled the blaze and were well alight by the time the firemen arrived.

Police have bitterly criticised that the de-[illegible]

With thousands gathering to watch the spectacular blaze, a huge traffic snarl-up lasting two hours slowed down the efforts of both police and the Fire Department.

There were no casualties.

The Fire Department said that the fire came at a time when it had already sent crews to fight a bush fire in Foochow Road.

"In such a tight situation we had to call on off-duty personnel," a spokesman for the department said.

Police appealed to the Civil Aviation Fire Section to send its fire engine but were told that the Fire Section could not do that without a specific order from the director.

The airport fire engine did not arrive [illegible]

An Agreement

For the Conservation of the Sumatran Rhinoceros

(Dicerorhinus sumatrensis)

between

The Department of Wildlife and National Parks Peninsula Malaysia

and

The Wildlife Section of the Forest Department, Sabah

and

The Sumatran Rhino Trust

of the

American Association of Zoological Parks and Aquariums

PREAMBLE

Recognizing that the Sumatran rhinoceros is one of the most endangered mammal species in the world and is facing serious threats of habitat loss, poaching and other mortality factors:

1. The Sumatran Rhino Trust of the American Association of Zoological Parks and Aquariums (AAZPA) together with the Department of Wildlife and National Park Peninsula Malaysia and the Sabah Wildlife Department agree to work together on a project aimed at providing this species with the maximum chance of survival.

2. The AAZPA Sumatran Rhino Trust recognize that as part of their commitment to the conservation of the species, they will undertake to fund conservation activity beyond their normal emphasis of acquiring animals for their collections.

3. The Wildlife Departments of Peninsula Malaysia and Sabah recognize that the technically advanced facilities existing in North America provide for a more rapid increase in size of a captive breeding group. This group potentially could be utilized for reintroduction back into their natural habitats at a more suitable time in the future.

However, it is noted that the entire program will be managed as a single conservation effort for the species and, in general, will be so that the species stands to gain the maximum advantage.

Background

This Agreement is entered into on this date by The Department of Wildlife and National Parks of Peninsular Malaysia (referred to as "West Malaysia"); the Wildlife Section, Department of Forestry, Sabah, Malaysia (referred to as "Sabah"); and the AAZPA Sumatran Rhino Trust (referred to as "SRT"). Collectively, "West Malaysia", "Sabah" and the "SRT" constitute the "Parties" and the "Signatories" to this Agreement.

The purpose of the Agreement is to establish a conservation project between the parties as part of a global strategy for conservation of the Sumatran rhinoceros (Dicerorhinus sumatrensis (referred to as the "Rhino") being developed under auspices of the Species Survival Commission (SSC) of the International Union for the Conservation of Nature and Natural Resources (IUCN).

The goal of the strategy is the longterm survival of the Rhino as a species and as a component of its natural ecosystems.

The strategy is justified because:

(a) The Rhino is a greatly endangered species;

(b) The Rhino presently survives in the wild to a great extent in small, isolated populations which may not be genetically or demographically viable for the long-term;

(c) The Rhino population is decreasing due to poaching, logging, and a combination of factors;

(d) Elimination of this species will deprive mankind of an irreplaceable, natural resource;

(e) This Agreement is entered into for the purpose of supplementing a conservation program to prevent the extinction of the Sumatran Rhino and thereby enrich our environment by preserving for mankind a species of invaluable scientific, educational and cultural significance.

The strategy will attempt to achieve this goal through conservation programs for:

(a) The protection of viable populations in sufficiently large areas of natural habitat;

(b) Captive propagation to preserve a reservoir of genetic diversity employing animals with no apparent hope

in-situ of contributing to the long-term survival of the species.

However, since the expertise and resources of the SRT are largely oriented toward captive propagation, their contributions must concentrate on this part of the strategy while providing other limited support for the in-situ conservation efforts.

Thus, the major objective of this specific cooperative conservation project is to develop a program of captive propagation for the Rhino.

The primary purpose of the captive propagation will be to reinforce wild populations.

The project will be developed in accordance with the guidelines established by the IUCN Ad Hoc Meeting on the Sumatran rhinoceros conducted in Singapore, 2-4 October, 1984, and attended by representatives of the parties to this Agreement. ("The Singapore Proposals"): See Appendix I.

The project will be developed under the oversight of the Sumatran Rhino Foundation ("Foundation") to be established under the auspices of the IUCN SSC. The Foundation will operate as an independent task force under aegis of the Asian Rhino Specialist Group of the IUCN SSC. Initially, the Foundation will consist of the Sumatran Rhino Coordinator ("Coordinator") and one representative each from West Malaysia, Sabah, the SRT, Indonesia (PHPA), the Howlett's Port Lympne Foundation from the United Kingdom, the IUCN SSC Asian Rhino Specialist Group and the IUCN SSC Captive Breeding Specialist Group. The Sumatran Rhino Coordinator will be employed by the IUCN under terms of reference which are available from IUCN.

While the major contributions of the SRT should and must be oriented to the captive propagation components of the conservation strategy for the Rhino, the cooperative nature of the project will be further demonstrated by financial and technical support from the SRT to West Malaysia and Sabah for in-situ conservation efforts.

This financial and technical support will include:

(a) Assistance from the SRT to increase protection of viable natural populations and sanctuaries. Priority in this regard will be accorded to the Tabin (Silabukan) Wildlife Reserve in Sabah. An important part of this assistance may be field research conducted collaboratively by Malaysian and SRT investigators;

(b) Surveys to determine which Rhinos are suitable for capture;

(c) Assistance for an innovative "gene pool" project in West Malaysia that in concept will combine elements of both in-situ conservation and captive propagation;

(d) Training for Malaysian Wildlife and National Parks Department staff in management of captive and wild populations;

(e) Transfer of capture and transport technology.

SPECIFICS OF THE PROJECT

Captive propagation programs will be developed in West Malaysia, Sabah and North America.

Field operations to collect appropriate Rhinos will be simultaneously initiated in West Malaysia and Sabah. An SRT representative (at this writing, Tony Parkinson) will coordinate and facilitate these efforts as the Field Supervisor. The field operations will commense within thirty days of signature of this Agreement by all parties.

A Management Committee ("Committee") will be formed consisting of seven members. These would include the Director General of the Department of Wildlife and National Park of Peninsular Malaysia as Chairman; the Director of Research and Management of the Department of Wildlife and National Parks of Peninsular Malaysia; the Assistant Chief Game Warden of Sabah; three representatives from the SRT, one of which will be the Field Supervisor and another of which will be the Species Coordinator for the SRT; and the IUCN SSC Sumatran Rhino Coordinator.

The primary function of the Committee will be to supervise and facilitate implementation of the project as specified by the Agreement and also, if required, to interpret the terms of this Agreement.

However, it is recognized that the primary responsibility of implementation of this project rests with the Malaysian parties to this Agreement.

Because of the long distances and the local necessities of the project, the Field Supervisor would represent the SRT on all day-to-day operational matters such as the coordination and supervision of the capture teams, the construction of the holding pens, the transportation and management of the animals after capture, and the basic logistics supporting the operations both in Sabah and West Malaysia.

If any problem develops that cannot be resolved by the Field Supervisor as the SRT representative, and the local authorities, the Committee would be consulted by telephone or some other form of rapid communication. If the problem still could not be properly resolved, a physical meeting in a mutually acceptable location can be convened by the Chairman, the Field Supervisor, or a majority of the other members of the Committee. This meeting would be for the purpose of dealing with any major matters not covered in this Agreement as well as the management of the field operations in which there was a major disagreement.

Funds from the SRT for the project would be directed through the Committee, who are responsible to the SRT and who must present the documentation of costs and a financial statement on a quarterly basis. At this point, the funds will be delivered to a special account of the Management Committee who shall act as paymaster in accordance with a budget adopted by the Committee. Payments shall be made by check or purchase order signed by any two members of the Committee.

A field capture team will be supported by the SRT to operate simultaneously in West Malaysia and Sabah. The contractual obligation will cover a three-year period from the date of signature of the Agreement by all parties. At the end of this three-year period, signatories to the Agreement will review the project and decide whether it is to be continued, modified, or discontinued.

The number and identity of animals to be captured in West Malaysia will be determined by the Director General of Wildlife and National Parks in accordance with the criteria delineated by the Foundation Masterplan and subject to the review and ratification of the IUCN Sumatran Rhino Foundation.

At this time, all animals captured in West Malaysia will remain in the country of origin. The captive propagation program in West Malaysia will be located at the Melaka Zoo. Funds for adequate facilities to accommodate any and all Rhinos placed in Melaka shall be the responsibility of West Malaysia.

Additionally, Rhinos may be moved to a "gene pool" site to be determined by the Director General. Actual distribution of Rhinos captured in West Malaysia between the Melaka Zoo, site of captive propagation in West Malaysia, or the gene pool project will be the decision of the Director General and will depend upon the number of Rhinos captured during the three-year period by the West Malaysian capture team.

In Saban, Rhinos will also be selected as candidates for capture according to criteria of the Foundation Masterplan. Preliminary analysis has indicated that all animals outside Tabin (Silabukan) Wildlife Reserve and its contiguous environs and Danum Valley identified in the report "The Plight of the Sumatran Rhino in Sabah" by P.M. Andau and J. Payne, satisfy these criteria and are candidates for immediate attempts at capture. Other groups or populations of Rhino that might be discovered in Sabah in the course of the project will be evaluated on a case-by-case basis according to the Foundation Masterplan criteria.

Due to the seriousness of the Rhino situation in Sabah, it is deemed necessary that a healthy captive population be established without delay. This population is to be built up of animals in fragmented situations and of doubtful value to the natural population in the wild. The aim of this is to establish a reservoir of the Bornean subspecies that could be utilized at a later date for reintroduction into the wild when adequate reserves or systems of protection have been established.

It is envisioned that six good breeding pairs of Rhinos will be set up at five different facilities. Two pair will go to Sepilok, and four pairs to the facilities listed: Cincinnati Zoo, Los Angeles Zoo, Bronx Zoo, and the San Diego Zoo.

Animals will be suitably matched by age and sex so as to maximize the breeding potential of this captive group.

The SRT will assist technically and financially in the development of the facility at Sepilok.

Derivation of all Rhinos destined for North America from Sabah will facilitate compliance with the Singapore Proposals recommendation for management of subspecies as separate populations in captivity for the near future.

By signing this Agreement, it is understood that both the Department of Wildlife and National Parks in West Malaysia and the Department of Forestry in Sabah agree promptly to provide the SRT with all documents needed for the legal exportation of these Rhino from Malaysia and their importation into the United States immediately upon their capture.

The SRT will support, through technical advice and financial help, capture teams in both West Malaysia and Sabah. This support shall not exceed US $250,000 in the first year of the project and will not exceed budgets agreed to each year thereafter by vote of the SRT (which shall depend upon the progress of the project as well as financial capability), on a date no later than 1 October in each calendar year. These funds will be assigned on a 4:1 ratio between Sabah and the Peninsular respectively.

The SRT will also provide technical and financial aid to the Sabah and Melaka captive propagation program,

to the "gene pool" project, and to *in situ* conservation efforts on a case-by-case basis to be approved by the SRT from time to time and in each year's budget and not to exceed US $100,000 during the first year and US $75,000 in each of the second and third years.

Further specifics on the amount of financial support will be determined mutually by the parties, project by project, based on the Foundation Masterplan.

Presently agreed upon items would be:

A. Support for the two capture teams financially and technically:

   (a) In Sabah, due to limited staff currently available, the SRT will pay salaries and field allowances of all personnel required as determined by the Field Supervisor.

   (b) In West Malaysia, the organization and payment of the capture team will be the responsibility of the Department of Wildlife and National Parks with the exception that the SRT will pay field allowances for staff not to exceed the amount for this purpose expended by the SRT in Sabah.

B. Specific items for West Malaysia:

   (a) Gene pool project - US $70,000 - to be used to construct staff and research buildings.

   (b) 1 Land Rover for West Malaysia to be utilized for gene pool project - US $15,000.

   (c) Radio communication system - US $10,000 to $15,000.

   (d) Salary and allowances for one ranger - US $7,500.

   (e) Support for the Committee to carry out its functions unless otherwise provided for and up to a limit of US $10,000 a year.

C. Specific items for Sabah:

   (a) 2 vehicles: 1 pickup truck, 1 station wagon - US $45,000.

   (b) Radio communication system - US $10,000 to $15,000.

C. (c) Scholarships for the Sabahan staff to attend relevant courses in Indonesia, India or elsewhere. These scholarships would be available at a rate of two/year with a maximum allowance of US $10,000/scholarship or a total fund of US $20,000/year.

(d) Possible program of field studies, especially concentrating in and around the Tabin Reserve (US $50,000 or expertise, equipment and time of equivalent value over the three-year period of the project), preferably by local scientists.

(e) Construction of holding facilities at Sepilok - US $30,000.

The Field Supervisor will divide his time equally between operations in West Malaysia and Sabah. The official headquarters and residence for the Field Supervisor will be established in West Malaysia, but a collateral base will be established in Sabah. The Field Supervisor will develop the schedule for distribution of his activities in consultation with the Management Committee and in relation to the evolving situation in the field.

The primary assignment of the Field Supervisor will be the Rhino project. However, he will also be available to advise and assist on other projects in West Malaysia (e.g. seladang) and Sabah (e.g. proboscis monkey) as time permits so long as in the opinion of the Field Supervisor and the Committee these activities do not detract from the primary assignment. Similarly, the Field Supervisor may be available on a very limited basis, not to exceed two weeks per year, to advise on the capture operations for the Rhino proposed in Indonesia as part of the IUCN SSC masterplan.

Technical assistance provided by the AAZPA SRT pursuant to the above paragraphs may include qualified animal keepers and veterinarians, curatorial guidance and support, and apprentice-training in West Malaysia and Sabah and at appropriate AAZPA zoos for qualified Malaysian curators, keepers and veterinarians. Such technical assistance during the first year of the project will include:

(a) Qualified keepers and veterinarians on an as-needed basis to be determined by the Field Supervisor at the captive facility to be developed at Sepilok and Melaka.

(b) Veterinary support for the actual capture operations, on a short notice and as-needed basis to be determined by the Field Supervisor;

(c) Curatorial support on a semi-continuous basis for the captive facility at Sepilok and similar operations such as Melaka in West Malaysia. Support to be provided by alternating among the institutions of the SRT on at least a 4-6 week basis, possibly with some time lapse in between the tours of duty;

(d) Training in both Malaysia and at appropriate AAZPA zoos for Malaysian curators, keepers and veterinarians to be negotiated on a mutually agreed upon level. Internships at SRT facilities for a period of eight weeks each would be available in the first year to two selected staff members from Sepilok and two selected staff members from Melaka or other appropriate facilities in West Malaysia;

(e) Through these various mechanisms, there will also specifically be an attempt to provide information and instruction in various reproductive and other technologies applicable to the conservation strategy for the Rhino and programs for other wildlife. In particular, the SRT will demonstrate technology in endocrinological analysis of urine and blood, embryo transfer and artificial insemination, and various genetic analyses (e.g. karyotypic and electrophoretic), capture and transport methods for the Rhino and other large mammals.

Technical assistance in subsequent years will be provided upon favorable review of the Sumatran Rhino Project by West Malaysia, Sabah, SRT and the Foundation.

The SRT will also provide US $25,000 to IUCN toward support of the contract for the Sumatran Rhino Coordinator during each year of the project.

The SRT will collaborate as appropriate with West Malaysia and Sabah in attempts to attract outside funds from corporations, foundations, organizations and philanthropists to support the conservation strategy for the Rhino.

All Rhinos captured in the project shall remain the property of the Malaysian government in perpetuity subject to the conditions of this Agreement. All animals transported to North America for captive propagation shall be designated to the SRT or its successor organizations on breeding loan.

All animals placed in captivity in West Malaysia, Sabah and North America will be managed cooperatively as part of a "world population" under coordination of the Sumatran Rhino Foundation.

27. **Progeny produced in North America will also be on breeding loan to the SRT or its successor organization until the North American population attains demographic stability and a genetically effective size of 25. However, Sabah has the option to request for the return of 1 pair if this be desirable. Thereafter, offspring from the North America population must and will be available for restocking adequate and protected reserves in Malaysia as the local management authorities advise in accordance with the Foundation Masterplan.**

The number of Rhinos potentially to be returned to Malaysia under these circumstances will at a minimum equal the number originally moved from Malaysia to North America. Beyond this number, repatriation of Rhino will continue as deemed necessary by the local management authorities and the Foundation Masterplan at a rate that does not detract from the self-sustaining status of the North American population.

Germplasm, which may be a more appropriate mechanism than actual animals in many cases for transfer of genetic material from captive to wild populations, can and will be returned to Malaysia immediately as the technology can be applied and the local management authorities and the Foundation Masterplan so recommend.

This Agreement can be amended only by mutual and unanimous agreement of the signatories.

It is understood that the signatures of the representatives of West Malaysia and Sabah to this Agreement obligate their Wildlife Departments to the terms of the Agreement. Likewise, the signature of the Species Coordinator of the SRT obligates the SRT to the terms of the Agreement.

Parties to this Agreement appreciate that the financial and technical support of the AAZPA Sumatran Rhino Trust is provided in the hope of securing the long-term survival of the Sumatran rhinoceros as a species and as a component of its natural ecosystems. The AAZPA SRT seeks to contribute to the long-term survival of biological diversity through the captive propagation of species that might otherwise be lost or so greatly reduced in numbers as to be highly vulnerable to extinction. The expertise and support of the Trust is and must be directed primarily toward the fulfillment of this goal through preservation by captive propagation. In fulfilling these goals, the SRT seeks to assist the Department of Wildlife and National Parks West Malaysia, and the Wildlife Section, Department of Forestry Sabah, in its own attempt to propagate the Sumatran rhinoceros and to provide such limited support as SRT resources permit to related efforts, as part of the conservation strategy for the Rhino, to preserve wild populations where these are adjudged viable using modern criteria of biological

conservation. The SRT applauds and does not seek to reduce, replace or supplant the efforts of the Malaysia government to protect its national wildlife in a state of nature.

In Witness Whereof, the following parties have executed this Agreement in such capacity and on such date as recorded below.

Mohd Khan bin Momin Khan
Director General
Department of National Parks
and Wildlife
Peninsular Malaysia

Date

Witness

Datuk Haji K M Mastan
Chief Game Warden
Wildlife Section
Department of Forestry
Sabah, Malaysia

Date

Witness

Warren B. Thomas, DVM
Species Coordinator
AAZPA Sumatran Rhino Trust

7 June 1985
Date

Witness

Sumatran rhinos to be exported for breeding

Move may cause controversy among conservationists

By ILSA SHARP

AFTER six years of agonising debate, Malaysia has decided to allow American zoos to breed its endangered Sumatran rhinoceros in captivity.

But not without driving a hard bargain to ensure American assistance for conserving wild rhinos and transferring breeding technology to Malaysians, says the Wildlife Department.

The Americans will commit about US$1 million ($2.4 million) to the project in its initial three years.

This department and the Wildlife Section of the Forest Department in Sabah intend together to sign an agreement at the end of this month with the Sumatran Rhino Trust set up by the American Association of Zoological Parks and Aquariums (AAZPA).

Estate workers pulling Jeram out of the monsoon drain in which it fell last year . . . the rhino is now living well in captivity at the Malacca zoo.

This follows hot on the heels of a similar agreement recently reached between the Indonesian Government and the Howletts and Port Lympne Estates Zoo of the United Kingdom for the capture of eight pairs of Sumatran rhino, four of which will go to Britain for captive breeding, with the remaining four staying in Indonesia for captive breeding there.

Malaysia's agreement with the association envisages the capture of a total of 10 pairs of rhino; four pairs for Peninsular Malaysia, to be captive-bred at the Malacca Zoo; and another six from Sabah (which represent a Bornean sub-species), of which the first two pairs will be kept for breeding at Sabah's own Sepilok research station near Sandakan; and the remaining four will be sent for captive breeding to the Los Angeles, San Diego (San Francisco), Bronx (New York) and Cincinnati Zoos in the United States.

Both Malaysia and the association are well aware that this project is certain to cause controversy in the world wildlife and conservation movement, considering the experts themselves are divided on what to do about the Sumatran rhino.

There are now only an estimated 800 or so Sumatran rhino left in the world and many of these are too isolated to breed.

The Swiss-based International Union for the Conservation of Nature and Natural Resources last year listed the Sumatran rhino as one of the 12 most endangered species of animals in the world.

The feeling amongst most members of the union's Species Survival Commission's Asian Rhino Specialist Group is that talk and more talk will not save the Sumatran rhino; action such as the association's agreement will.

The group has, since early this year, been chaired by Encik Mohamed Khan Momin Khan, Director-General of the Wildlife Department.

He began by being opposed to the exportation of Malaysian Sumatran rhinos for a captive breeding project, partly for reasons of national pride, but he has since revised his views.

The former chairman, Professor Dr Rudolf Schenkel, however, remains opposed in principle to the concept of captive-breeding, preferring options such as natural rhino reserves in the wild and translocation of isolated rhinos to such reserves.

One of the main reasons for Malaysia's change of heart has been the specific case of Sabah, where the local sub-species of Sumatran rhino is in serious trouble.

Estimates have been made of a total population of anything from 25 to 28 Sumatran rhinos in Sabah, but is feared that in reality, the figure may be much lower.

(In Peninsular Malaysia, there may be anything from 50 to 100 of the rhinos.)

In any case, Sabah has only one small breeding population, in the Tabin (formerly Silabukan) Wildlife Reserve.

The remainder are isolated individuals without any hope of breeding, says the Wildlife Department.

But some conservationists point out that it is only because of excessive logging and other incursions into their natural habitat that rhinos became isolated in the first place.

It would be more meaningful to stop these incursions than to declare the rhino doomed in advance, they claim.

Poaching is also a regular occurrence, particularly in Sabah, and the Sumatran rhino population there is therefore declining rapidly — three were killed last year, and already two have been killed this year.

(In Peninsular Malaysia, one has been killed in the past two years — at Bukit Bujang in Johore in March this year. The Wildlife Department is expected to bring the culprit to trial soon.)

Sabah is isolated to some extent and, as a result, Sabah wildlife authorities operate independently, without benefiting from the federal budgets allocated to the peninsular Wildlife Department: whereas the peninsular department can easily contemplate captive-breeding on Malaysian soil, Sabah cannot, for reasons of both restricted finance and manpower.

And so one is left wondering, as Encik Mohamed Khan said — "What to do?"

The agreement with the American association is the answer to that question, maintain the various signatories.

The features of this agreement which seem positive to the Wildlife Department are:

● THE rhinos are considered to be on breeding loan to the American zoos. The agreement states: "*All rhinos captured in the project shall remain the property of the Malaysian Government in perpetuity subject to the conditions of this agreement.*"

The number of rhinos to be returned to Malaysia will at minimum equal the number originally exported from Malaysia to the United States;

● MALAYSIA will retain six pairs for its own captive breeding programmes — four of these at Malacca, and two at Sepilok;

● THE American zoos' Sumatran Rhino Trust, through a proposed Sumatran Rhino Foundation to be set up (comprising representatives of the Species Survival Commission's Captive Breeding Specialist Group, Peninsular Malaysia, Sabah, the American zoos' SRT, Indonesia and Howlett's Port Lympne Zoo), will disburse substantial amounts of money for:

□ Development of the breeding centres at Malacca and Sepilok;

□ Transfer to Malaysians for capture and breeding technology, possibly including American expertise in artificial insemination and embryo transfer, both by means of attaching foreign experts to Malaysia, and by sending Malaysians for training courses abroad;

□ Helping with the Wildlife Department's own proposal for a "gene pool" project at Sungai Dusun: this would entail fencing off the strictly patrolling large area within which rhinos could breed naturally;

□ No export of rhino from Peninsular Malaysia is intended.

□ Only isolated "doomed" rhinos will be captured — for instance, the agreement specifically excludes capture of rhinos within Sabah's known main rhino areas, Tabin and Danum Valley.

□ Study of the little-known, shy Sumatran rhino in captivity may add to our knowledge and help conservation of the remaining wild populations; and

□ The agreement can be reviewed in three years' time by all parties concerned.

The conservationists opposed to the agreement are cynical about the association's real motivations: their only concern, says this lobby, is public display of the coveted, rare Sumatran rhinos at their zoos and the gate revenue, as well as prestige, which they can expect as a result.

Neither the American zoos nor the Malaysian side hide the fact that, naturally, the association is not offering "something for nothing."

The zoos do want display and prestige as the return on their capital investment.

But, they maintain, this is a deal which is mutually beneficial and which may be the only way of saving the rhino.

Another argument against the breeding project is that, no matter how highly developed American technology is, breeding of the Sumatran rhino in captivity has never been attempted before and very little is known of the animals.

The chances of success may therefore be quite low, whereas the chances of trauma to the animals through capture, transportation and incarceration in zoos may be quite high, say the critics.

In reply to some of this, zoo officials would point out that the two female Sumatran rhinos "Jeram," captured last year, and "Melintang," captured a few months ago, and now at Malacca Zoo, have settled down very well in captivity, despite this species of rhino's usual need for a complex diet comprising many varieties of deep-forest foliage.

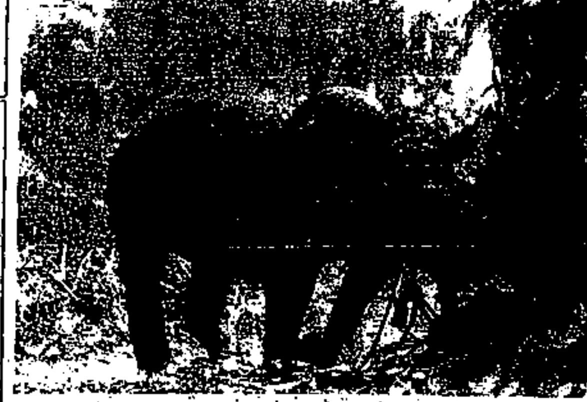
A baby male captured in poor condition last year, however, died this year.

In addition, foreign zoos have successfully bred the white and black rhinos and the Indian rhino — seven of 10 Indian rhino in American zoos are now pregnant, in fact.

Perhaps the opposition's strongest arguments are:

1. That it will prove impossible to re-introduce the rhino into Malaysian forests once they have been taken to, or bred in, zoos. Professor Schenkel himself takes this line; and

2. That taking the rhino to zoos so that they can "survive" will be used as an excuse for destroying their natural habitat meanwhile.



Smallest of the world's rhinos

THE Sumatran rhino (*Dicerorhinus sumatrensis* or two-horned Asiatic rhino), has three sub-species: *Dicerorhinus sumatrensis sumatrensis*, the type found in Peninsular Malaysia, *Dicerorhinus sumatrensis harrissoni*, found on Borneo, and *Dicerorhinus sumatrensis lasiotis*, found in north-east India, Bangladesh and Burma.

This rhino is the smallest of the world's five surviving species of rhino.

It is "woolly" rather than bare-skinned like other rhinos.

It may also be related to the prehistoric woolly rhino, which is now extinct.

It may have been around for as long as 40 million years.

A hundred years ago, the Sumatran rhino ranged freely in the Himalayan foothills of India, right through South-East Asia.

Herbivorous and solitary, except when it is actually mating, the Sumatran rhino has been poached for its horn, prized in folk medicine, and its forest habitat has been threatened by development and logging.

There remain between 450 and 750 Sumatran rhino in Sumatra.

Malaysia's is the most important other population in the world, with the situation in Thailand, Burma and Indochina largely unknown, but not considered very hopeful by most experts.

The last Sumatran rhino in captivity, a female, died in 1972 after spending 14 years at the Copenhagen Zoo in Denmark. — © The Sharp Editorial Services 1985.

> We at the International Union for the Conservation of Nature and Natural Resources (IUCN) consider this a most important occasion, where precedents may be set for other species and other regions of the world.
>
> — *Mr Robert F. Scott, executive officer, IUCN Species Survival Commission*

Once out of the wild, what dignity does a species have? What does such "survival" — as a virtual museum display — really mean and what possible benefit can survival for its own sake have, except as a curiosity for future generations of goggling schoolchildren?

It must also be added that the process of catching the rhinos will be difficult and tedious, possibly stretching at least over the next six years — particularly as the agreement has denied itself the more obvious hunting grounds of Tabin and Danum Valley.

And the breeding programme, even if almost immediately successful, which seems unlikely, will be prolonged, since rhinos produce a litter of only one about every two years (the gestation period is about 16 months).

The babies produced in the captive-breeding projects are to be divided equally between the Americans and the Malaysians, only after the total American zoo population reaches 25 so that immediate benefits to Malaysia — indeed, to the world — are certainly a long way off from now, maybe as much as 20 years.

Men like Professor Schenkel, who is something of an idealist, feel that humans must change, learn to live with rhinos and give them space.

The captive breeding lobby more or less says time is too short to find out whether this is possible, and on the whole, human nature unfortunately does not give out much hope for this idea.

This is what the whole dilemma boils down to — should humans change or should rhinos?

It looks as though; at the end of this month, the die will be cast and it will be the rhinos that will have to change. — © Ilsa Sharp Editorial Services, 1985.

13

10 May 1985

TO: CONSERVATOR OF FORESTS
DEPUTY CONSERVATOR OF FORESTS (I)
DEPUTY CONSERVATORS OF FORESTS (II)
OTHER SENIOR OFFICERS, FOREST DEPARTMENT

Re: PROPOSED CAPTIVE BREEDING OF RHINOS

The attached documents demonstrate the situation at present. The most important point is that the draft agreement calls for attempts to capture at least 5 pairs of Rhino in Sabah. The first pair would remain in Sabah for breeding, with costs and technical assistance from the U.S. zoos. The next four pairs would be placed on breeding loan to zoos in U.S.A; offspring would only come back to Sabah at a later date.

This situation has been reached over two years of correspondence and meetings. In the opinion of Dr. Nico van Strien, the IUCN representative who visited Sabah recently, it is likely but not certain that the U.S. zoos would not agree to any further significant changes in the current draft agreement. Thus, if a new proposal were put up from Sabah, calling for fewer Rhinos on loan to U.S.A. or a change in timing of the project, the U.S. zoos would probably withdraw, followed by Peninsular Malaysia and Indonesia. The U.S. zoos argue that there is no point in having fewer than 4 pairs, since fewer would result in genetic inbreeding and extinction in captivity. The Rhino species in question is so endangered, that further significant delays may cause the species to reach the point of no return, given that we cannot guarantee the safety of wild populations.

If, despite this, the present draft proposal is considered unacceptable, I would suggest the following steps:

1) An urgent meeting to decide exactly what plan Sabah wishes.

A possible alternative would be for Sabah to fund capture and captive facilities, the U.S. zoos to provide technical personnel. Breeding loan to U.S.A. would be guaranteed after the first captive birth in Sabah. I think that Sabah would have to assume a period of, say, five years before first birth and a budget of M$1.5 million (although this is little more than a guess).

2) Telex the U.S. zoos to ascertain whether they would consider the alternative proposed.

Junaidi Payne
(on behalf of Game Branch).

SUMMARY OF PLAN FOR RHINO CAPTIVE BREEDING, 1983-PRESENT

Early 1983 Contact made with American Association of Zoo Parks and Aquariums (AAZPA), which has expressed interest in helping to conserve endangered species by captive breeding programmes.

Early 1983 One Rhino reported shot in upper Kuamut area and one killed in Kretam area.

April 1983 Representatives of AAZPA visit Sabah and Peninsular Malaysia. In Sabah, they visit several areas in the field where Rhinos still occur. They discuss possibilities of captive breeding with the Forest Department, and representatives of several other relevant organisations including Hasil Bumi, Resource Development Ministry, Sabah Foundation, Veterinary Department and Sabah National Parks.
AAZPA indicates that it wishes to form a captive breeding programme, but that Rhinos should go to U.S.A. because (a) facilities and expertise are immediately available, (b) it is better to spread the risk of extinction from disease in different parts of the world, (c) the zoos could only justify the large investment required by obtaining at least some benefit (rhinos) in return.
The concensus in Sabah is that captive breeding is needed to prevent extinction, but that at least some should be done within Sabah.

May 1983 It is decided that the Forest Department would proceed by submitting to the Sabah government a proposal with three options for saving doomed Rhinos (that is, Rhinos outside of protected areas). The three options are: (a) translocation, (b) captive breeding within Sabah, (c) captive breeding in association with AAZPA.
The proposal indicates that all three options involve budgets running to millions of ringgit and many years. Translocation (to protected areas) is not recommended because of high risk of failure. It is pointed out that captive breeding within Sabah, although preferred, needs a long term commitment to funding and this would have to be borne by government. The third option would ensure adequate funding and expertise, but a proportion of Rhinos caught (number unspecified at this stage) would have to go to U.S. zoos on breeding loan. The U.S. zoos have agreed to provide various benefits for Sabah and to return half of any Rhinos bred in captivity.

June 1983 The proposal is submitted to Hasil Bumi.

October 1983 Rhino killed near Tungku, Lahad Datu.

October 1983 AAZPA writes to Sabah Chief Minister, informing him of the AAZPA proposal and seeking his support. Chief Minister replies, supporting a joint Forest Department/AAZPA effort for

Rhino conservation.

Late 1983 By this stage, the Wildlife and National Parks Department (Peninsular Malaysia) has indicated that it would not be party to the AAZPA proposal because the idea of Rhinos leaving Malaysia is unacceptable. IUCN expresses no official view.

Throughout 1984 The U.S. zoos, hopeful of a joint project, proceed with formulating plans and raising funds.

January 1984 Official reminder to Hasil Bumi for reply.

January 1984 Article in Borneo Bulletin on proposed Rhino project. Information apparently obtained from U.S.A. sources.

Early 1984 At least two Rhinos reported killed in lower Segama/Tabin area. One Rhino killed at Sungai Lokan.

February 1984 Official reminder to Hasil Bumi for reply.

April 1984 Official reminder to Hasil Bumi for reply.

May 1984 A Rhino is caught unexpectedly in Peninsular Malaysia. U.S. zoos provide assistance in care. There is renewed interest and the Peninsular Wildlife Department wishes to commence captive breeding, but insist that this must be entirely within Malaysia.

August 1984 Hasil Bumi gives approval in principle to the AAZPA proposal, pending inspection of the memorandum of understanding.

October 1984 A major meeting is held in Singapore, where all parties with an interest in captive breeding of Rhinos attend. Peninsular Malaysia decides to support the project, although insisting that captive facilities be established within Malaysia as the first stage. Sabah demands that at least one breeding pair be established within the state before any more are loaned to U.S. zoos. It is agreed that AAZPA must deal with Peninsular Malaysia and Sabah as one unit. It is revealed that a similar project is under negotiation between Indonesia and a British zoo. Overall, one international effort will be undertaken to conserve the Sumatran Rhino from extinction, primarily by supporting conservation in the wild, and secondly by captive breeding, with captive facilities in Sabah, Peninsular Malaysia, Indonesia, U.S.A. and Britain. The aim will be to build up a significant captive population for re-introduction into the wild in adequately protected areas. The U.S. and British Zoos agree to fund most of the programme, including assistance for conservation of wild populations.

November 1984 IUCN formally supports the programme, thus giving world-wide recognition.

December 1984 to April 1985 Draft agreement between Malaysia (including Sabah) and U.S. zoos produced.

March 1985 Borneo Bulletin contacts several sources in Peninsular Malaysia, none of whom have any knowledge of the proposed project, and asks if they approve of export of Rhinos to America. Inaccurate articles appear in Brunei and Peninsular press.

April 1985 IUCN press release outlining the proposed project. Coincides with election period and does not appear in Sabah newspapers.

May 1985 IUCN representative comes to Malaysia for decision on whether agreement will be signed. West Malaysia agrees. Sabah requires further discussion.

Note: this draft agreement is the one which has been evolved since the October 1984 Singapore meeting, where all parties met to discuss the Rhino capture project. (Apart from minor changes in style but not content) it has been agreed upon by the Peninsular Malaysia Wildlife and National Parks Department and by the U.S. zoos. It will be endorsed by IUCN, the relevant international body, pending a decision in Sabah.
Originally, the U.S. zoos were asking for a larger number of Rhinos. Since the original draft was produced, Peninsular Malaysia and Sabah have reduced the number of Rhinos to be loaned to U.S. zoos and obtained more benefits in return.

AGREEMENT FOR A COOPERATIVE PROJECT BETWEEN MALAYSIA AND THE AAZPA SUMATRAN RHINO TRUST FOR CONSERVATION OF THE SUMATRAN RHINOCEROS

PREAMBLE

1. This agreement is entered into on this date by: The Department of Wildlife and National Parks of Peninsular Malaysia (referred to as "West Malaysia"); the Wildlife Section, Forest Department, Sabah, Malaysia (referred to as "Sabah"); and the AAZPA Sumatran Rhino Trust (referred to as SRT). Collectively, West Malaysia, Sabah and the SRT constitute the "Parties" and the "Signatories" to this Agreement.

2. The purpose of the Agreement is to establish a conservation project between the parties as part of a global strategy for conservation of the Sumatran rhinoceros Dicerorhinus sumatrensis (referred to as the "Rhino") being developed under the auspices of the Special Survival Commission (SSC) of the International Union for the Conservation of Nature and Natural Resources (IUCN), in which West Malaysia, Sabah, Indonesia, SRT and Howletts - Port Lympne Foundation will cooperate in the total conservation of the rhino.

3. The goal of the strategy is the long-term survival of the Rhino as a species and as a component of its natural ecosystems.

4. The strategy is justified because:

   (A) The Rhino is a greatly endangered species;

   (B) The Rhino presently survives in the wild to a great extent in small, isolated populations which may not be genetically or demographically viable for the long-term;

(C) The Rhino population is decreasing due to poaching, logging, and a combination of factors;

(D) Elimination of this species will deprive mankind of an irreplaceable, natural resource.

(F) This agreement is entered into for the purposes of supplementing a conservation program to prevent the extinction of the Sumatran Rhino and thereby enrich our environment by preserving for mankind a species of invaluable, scientific, educational and cultural significance.

5. The strategy will attempt to achieve this goal through conservation programs both for:

(A) the protection of viable populations in sufficiently large areas of natural habitat, and

(B) captive propagation to preserve a reservoir of genetic diversity employing animals with no apparent hope in situ of contributing to the long-term survival of the species.

6. However, since the expertise and resources of the SRT are largely oriented toward captive propagation, their contributions must concentrate on this part of the strategy providing other limited support for the in situ conservation efforts.

7. Thus, the major objective of this specific cooperative conservation project is to develop a program of captive propagation for the rhino.

8. The primary purpose of the captive propagation will be to reinforce wild populations.

9. The project will be developed in accordance with the guidelines established by the IUCN Ad-hoc Meeting on Sumatran Rhino conducted in Singapore, 2-4 October 1984 and attended by representatives of the parties to this Agreement. ("The Singapore Proposals"): See Appendix 1.

10. The project will be developed under the oversight of the Sumatran Rhino Foundation ("Foundation") to be established under the auspices of the IUCN SSC. The Foundation will operate as an independent task-force under the aegis of the Asian Rhino Specialist Group of the IUCN SSC. Initially, the Foundation will consist of the Sumatran Rhino Coordinator ("Coordinator"), and one representative each from West Malaysia, Sabah, the SRT, Indonesia (PHPA), the Howlett's-Port Lympne Foundation from the United Kingdom, the IUCN SSC Asian Rhino Specialist Group and the IUCN SSC Captive Breeding Specialist Group. The Sumatran Rhino Coordinator will be employed by the IUCN under terms of reference

which are available from IUCN.

11. While the major contributions of the SRT should and must be oriented to the captive propagation components of the conservation strategy for the Rhino, the cooperative nature of the project will be further demonstrated by financial & technical support from the SRT to West Malaysia and Sabah for *in situ* conservation efforts.

This financial & technical support will include:

(A) Assistance from the SRT to increase protection of viable natural populations and sanctuaries. Priority in this regard will be accorded to the Tabin (Silabukan) Wildlife Reserve in Sabah. An important part of this assistance may be field research conducted collaboratively by Malaysian and SRT investigators.

(B) Surveys to determine which Rhinos are suitable for capture.

(C) Assistance for an innovative "Gene pool" project in West Malaysia that in concept will combine elements both of *in situ* conservation and captive propagation

(D) Training for Malaysian wildlife personnel both from Sabah and West Malaysia.

(E) Transfer of captive and transport technology.

SPECIFICS OF THE PROJECT

1. Captive propagation programs will be developed in West Malaysia, Sabah and North America.

2. Field operations to collect appropriate rhinos will be simultaneously initiated in West Malaysia and Sabah. An SRT Representative (at this writing Tony Parkinson) will coordinate and facilitate these efforts as the Field Supervisor. The field operations will commence within 30 days of signature of this Agreement by all parties.

3. A Management Committee ("Committee") will be formed consisting of seven members. These would include the Director General of the Department of National Parks and Wildlife of Peninsular Malaysia as Chairman; the Director of Research and Management for the Department of National Parks and Wildlife of Peninsular Malaysia; the Assistant Chief Game Warden of Sabah; three representatives from the SRT, one of which will be the Field Supervisor and another of which will be the Species Coordinator for the SRT; the IUCN Sumatran Rhino Coordinator. Committee decisions will be made by concensus.

The primary function of the committee will be to supervise and facilitate implementation of the project as specified by the Agreement. But the Committee may also need to interpret terms of this Agreement from time to time as they are implemented.

4. Because of the long distances and the local necessities of the project the Field Supervisor would represent the SRT on all day-to-day operational matters such as the coordination and supervision of the capture teams, the construction of the holding pens, the transportion and management of the animals after capture and the basic logistics supporting the operations both in Sabah and West Malaysia.

5. If any problem develops that cannot be resolved by the Field Supervisor as the Trust representative, and the local authorities, the Management Committee would be consulted by telephone or some other form of rapid communication. If the problem will could not be properly resolved, a physical meeting in a mutually acceptable location can be convened by the Chairman, the Field Supervisor, or a majority of the other members of the Committee. This meeting would be for the purpose of dealing with any major matters not convered in this agreement as well as the management of the field operations in which there was a major disagreement.

6. Funds from the SRT for the project would be directed through the Management Committee, who is responsible to the Trust and who must present the documentation of costs and a financial statement on a quarterly or more frequent basis, as specified by the SRT. At this point, the funds will be delivered to a special account of the Management Committee which shall act as paymaster in

accordance with a budget adopted by the Management Committee. Payments shall be made by cheque or purchase order signed by any two members of the committee.

7. A field capture team will be supported by the SRT to operate simultaneously in West Malaysia and Sabah. The contractual obligation will cover a 3-year period from the date of signature of the Agreement by all parties. At the end of this 3-year period, signatories to the Agreement will review the project and decide whether it is to be continued, modified or discontinued.

8. The number and identity of animals to be captured in West Malaysia will be determined by the Director General of Wildlife and National Parks in accordance with the criteria delineated by the Foundation Masterplan and subject to the review and ratification of the IUCN Sumatran Rhino Foundation.

At this time, all animals captured in West Malaysia will remain in the country of origin. The captive propagation program in West Malaysia will be located at the Melaka Zoo. Funds for adequate facilities to accomodate any and all rhinos placed in Melaka shall be the responsibility of West Malaysia.

Additionally, rhinos may be moved to a "gene pool" site to be determined by the Director General. Actual distribution of rhinos captured in West Malaysia between the Melaka Zoo, site of captive propagation in West Malaysia, or the gene pool project will be the decision of the Director General and will depend upon the number of rhino captured during the 3-year period by the West Malaysian capture team.

9. In Sabah, rhinos will also be selected as candidates for capture according to criteria of the Foundation Masterplan. Preliminary analysis has indicated that all animals outside Tabin (Silabukan) Wildlife Reserve and its contiguous environs and outside Danum Valley identified in the report "The Plight of the Sumatran Rhino in Sabah" by P.M. Andau and J.Payne satisfy these criteria and are candidates for immediate attempts at capture. Other groups or populations of Rhino that might be discovered in Sabah in the course of the Project will be evaluated on a case-by-case basis according to the Foundation Masterplan criteria.

The objective in Sabah shall be to capture 5 potentially reproducing pairs to be placed in separate captive facilites. One of these facilities shall be located in Sabah probably at Sepilok and shall be constructed and developed with the technical assist ance of the SRT with funds provided by the SRT. The other four captive facilities to receive rhino from Sabah will be in North America and will be located at the four institutions that constitute the primary members of the SRT (Cincinnati, Los Angeles, New York, and San Diego Zoos).

The intent of this agreement is to assure that each of five facilities obtains one pair of animals, suitably matched by age and sex so as to encourage the development of productive

propagation efforts. The first such pair will be placed at the facility in Sabah. No fewer than four such pairs will be exported to SRT facilities in North America for propagation. In the event of a mortality or apparent infertility rhinos will be replaced if an when they become available.

The Rhino facility to be developed in Sabah will be used as an acclimitization station to select such suitable pairs for propagation. The Field Supervisor will determine the suitability of rhinos for the propagation programs in Sabah and in North America. Disposition of animals considered unsuitable for relocation to North America for for permanent maintenance in Sabah will be responsibility of the Management Committee in consultation with the Foundation.

Derivation of all Rhino destined for North America from Sabah will facilitate compliance with the Singapore Proposals recommendation for management of subspecies as separate populations in captivity for the near future.

10. By signing this Agreement, it is understood that the relevant government agencies agree to provide as quickly as possible to the Sumatran Rhino Trust all documents needed for the legal exportation of these Rhino from Malaysia and their importation into the United States immediately upon their capture.

11. The SRT will support through technical advice and financial help capture teams in both West Malaysia and Sabah. This support shall not exceed US$250,000 in the first year of the project and will not exceed budgets agreed to each year thereafter by vote of the SRT (which shall depend upon the progress of the project as well as financial capability) on a date no later than 1 October in each calender year.

The SRT will also provide technical and financial aid to the Sabah and Melaka captive propagation programs, to the "gene pool" project, and to in situ conservation efforts on a case-by-case basis to be approved by the SRT from time to time and in each year's budget and not to exceed US$100,000 during the first year and US$75,000 in each of the second and third years.

Further specifics on the amount of financial support will be determined mutually by the parties, project by project, based on the Foundation Masterplan.

Presently agreed upon items would be:

(A) Support for the 2 capture teams financially and technically.

(a) In Sabah, due to limited staff currently available, the SRT will pay salaries and field allowances of all personnel required as determined by the Field Supervisor.

(b) In West Malaysia, the organization and payment of the

capture team will be the responsibility of the Department of National Parks and Wildlife with the exception that the SRT will pay field allowances for staff not to exceed the amount of this purpose expended by the SRT in Sabah.

(B) Specific items for West Malaysia:

(a) Gene pool project - US$70,000 - to be used to construct staff and research buildings.

(b) 1 Land Rover for West Malaysia to be utilized for gene pool project - US$15,000.00.

(c) Radio communication system - US$10,000-$15,000

(d) Salary and allowances for one ranger - US$7500.00

(C) Specific items for Sabah:	US$
(a) Construction of permanent and holding facilities, probably at Sepilok	30,000.00
(b) Two vehicles, 1 pickup truck, 1 station wagon	45,000.00
(c) Radio Communication system	15,000.00
(d) (2/year) scholarships for the Sabahan staff to attend relevant courses in Indonesia, India or elsewhere. These scholarships would be available at a rate of two-year with a maximum allowance of $10,000/scholarship or a total fund of $20,000/year	60,000.00
(e) Possible program of field studies, especially concentrating in and around the Tabin Reserve preferably by local scientists.	50,000.00
The amount allocated will be partially in the form of expertise, equipment etc.	
(f) Funding and facilities for Sabah personnel to undergo training in U.S. Zoos. (see section 14, below)	approx. 30,000.00
(g) Veterinarian and qualified keepers, as needed, to assist with running of captive facility (see section 14, below)	approx. 70,000.00

(h)	Expenses for *in situ* conservation measures in Sabah (including captive facility and protection of wild populations. See section 11, above: West Malaysia agrees to 80% of the	200,000.00
	TOTAL	US$ 600,000.00

12. The Field Supervisor will divide his time equally between operations in West Malaysia and Sabah. The official headquarters and residence for the Field Supervisor will be established in West Malaysia, but a collateral base will be established in Sabah. The Field Supervisor will develop the schedule for distribution of his activities in consultation with the Management Committee and in relation to the evolving situation in the field.

13. The primary assignment of the Field Supervisor will be the Rhino project. However, he will also be available to advise and assist on other projects in West Malaysia (e.g. selandang) and Sabah (e.g. proboscis monkey) as time permits so long as in the opinion of the Field Superviser and the Management Committee these activities do not detract from the primary assignment. Similarly, the Field Superviser may be available on a very limited basis, not to exceed 2 weeks per year to advise on the capture operations for the Rhino proposed in Indpnesia as part of the IUCN SSC masterplan.

14. Technical assistance provided by the AAZPA SRT pursuant to the above paragraphs may include qualified animal keepers and veterinarians, curatorial guidance and support, and apprentice training in West Malaysia and Sabah and at appropriate AAZPA zoos for qualified Malaysian curators, keepers and veterinarians. Such technical assistance during the first year of the project will include:

(A) Qualified keepers and veterinarians on an as-needed basis to be determined by the Field Supervisor at the captive facility to be developed at Sepilok and Melaka.

(B) Veterinary support for the actual capture operations, on a short notice and as-needed basis to be determined by the Field Supervisor.

(C) Curatorial support on a semi-continuous basis for the captive facility at Sepilok and similar operations such as Melaka in West Malaysia. Support to be provided by alternating among the institutions of the SRT on at least a 4-6 week basis possibly with some time lapse in between the tours of duty.

(D) Training in both Malaysia and at appropriate AAZPA zoos for Malaysian curators, keepers, and veterinarians to be negotiated on a mutually agreed upon level. Internships at SRT facilities for a period of eight weeks each would be available in the first year to two selected staff members from Sepilok and two selected sstaff members from Melaka or other appropriate, facilities in West Malaysia.

(E) Through these various mechanisms, there will also specifically be an attempt to provide information and instruction in various reproductive and other technologies applicable to the conservation strategy for the Rhino and programs for other wildlife. In particular, the SRT will demonstrate technology in endocrinological analysis of urine and blood, embryo transfer and artificial insemination, and various genetic analyses (e.g. karyotypic and electrophoretic), capture and transpsort methods for the Rhino and other large mammals.

Technical assistance in subsequent years will be provided upon favorable review of the Sumatran Rhino Project by West Malaysia, Sabah, the SRT, and the Foundation.

15. The SRT will also provide US$25,000 to IUCN toward support of the contract for the Sumatran Rhino Coordinator during each year of the project.

16. The SRT will collaborate as appropriate with West Malaysia and Sabah in attempts to attract outside funds from corporations, foundations, organizations, and philanthropists to support the conservation strategy for the Rhino.

17. All animals placed in captivity in West Malaysia, Sabah, and North America will be managed cooperatively as part of a "world population" under coordination of the Sumatran Rhino Foundation.

18. All rhinos captured in the Project shall remain the property of the Malaysian government in perpetuity subject to the conditions of this Agreement. All animals transported to North America for captive propagation shall be designated to the Sumatran Rhino Trust or its successor organizations on breeding loan.

19. Progeny produced in North America will also be on breeding loan to the SRT or its successor organizations until the North American population attains demographic stability and a genetically effective size of 25 Rhinos. Thereafter, offspring from the north American population must and will be available for restocking adequate and protecetd reserves in Malaysia as the local management authorities advise in accordance with the Foundation Masterplan

The number of rhinos potentially to be returned to Malaysia under these circumstances will at a minimum equal the number originally moved from Malaysia to North America. Beyond this number, repatriation of Rhino will continue as deemed necessary by the

local management authorities and the Foudation Masterplan at a rate that does not detract from the self-sustaining status of the North American population.

Germplasm, which may be a more appropriate mechanism than actual animals in many case for transfer of genetic material from captive to wild populations, can and will be returned to Malaysia immediately as the technology can be applied and the local management authorities and the Foundation Masterplan so recommend.

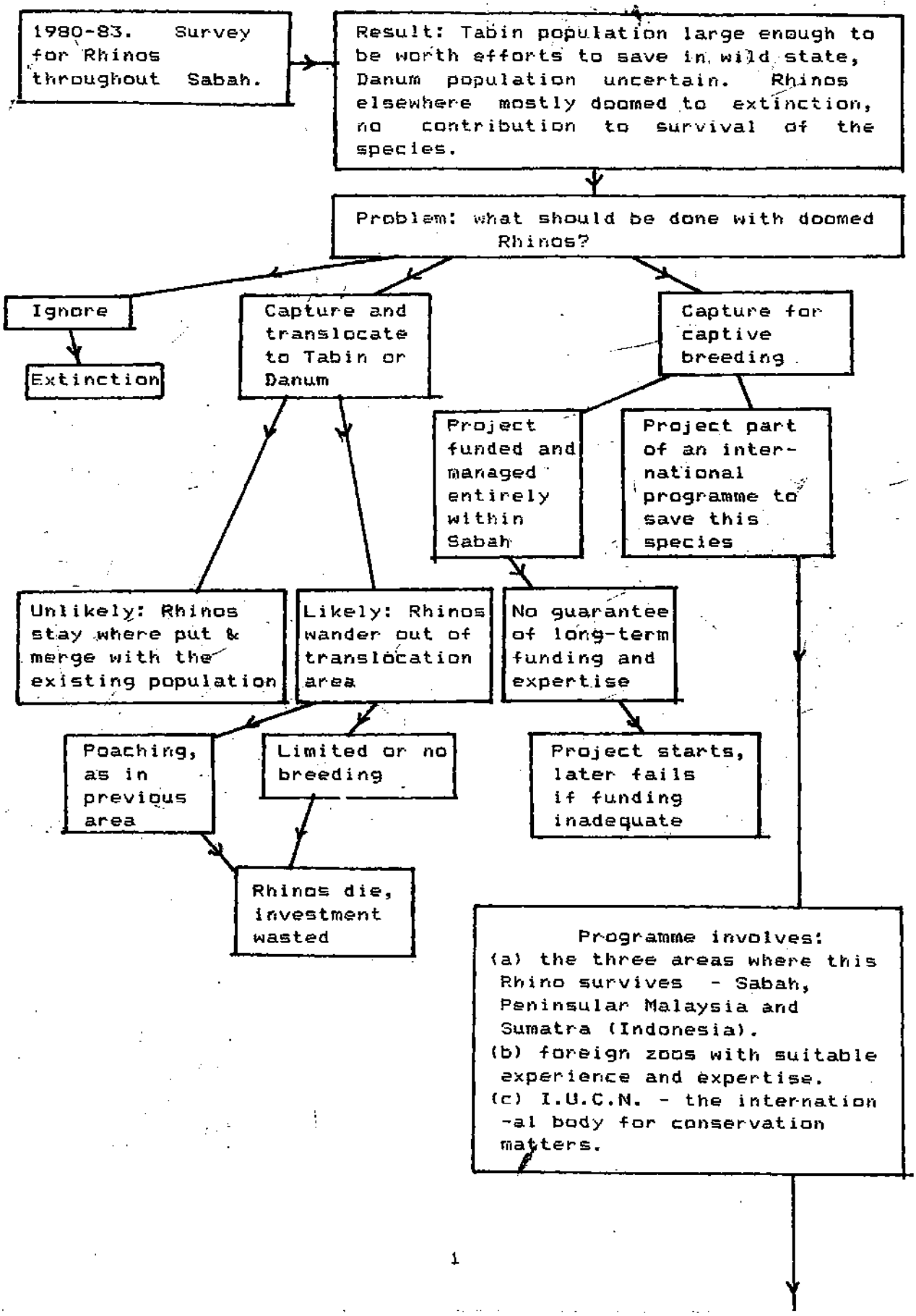
The SRT will provide technical and financial assistance for reintroduction of captive-born Rhinos into Malaysia.

20. This Agreement can be amended only by mutual and unamimous agreement of the signatories.

21. It is understood that the signatures of the representatives of West Malaysia and Sabah to this Agreement obligates their Wildlife Departments to the terms of the Agreement. Likewise, the signature of the Species Coordinator of the SRT obligates the SRT to the terms of the Agreement.

22. Parties to this Agreement apprecate that the financial and technical support of the AAZPA Sumatran Rhino Trust is provided in the hope of securing the long-term survival of the Sumatran Rhinoceros as a species and as a component of its natural ecosystems. The AAZPA Sumatran Rhino Trust seeks to contribute to the logn-term survival of biological diversity through the captive propogation of species that might otherwise be lost or sogreatly reduced in numbers as to be highly vulnerable to extinction. The expertise and support of the Trust is and must be directed primarily toward fulfilment of this goal through preservation by captive propogation. In fulfilling these goals, the SRT seeks to assist the West Malaysian Department of Wilfdlife and National Parks and the Wildlife Section of the Sabah Forest Department in its own attempts to propogate the Sumatran rhino and to provide such limited support as SRT resources permit to related efforts, as part of the conservation strategy for the rhino, to preserve wild populations where these are ajudged viable using modern criteria of biological conservation. The SRT applauds and does not seek to reduce, replace or supplant the efforts of the Malaysian government to protect its national wildlife in a state of nature.

RHINOS IN SABAH: THE CASE FOR CAPTIVE BREEDING AND AN INTERNATIONAL COOPERATIVE PROJECT



Foreign (U.S.A.) zoos offer to provide most funding and expertise required in return for some Rhinos caught being loaned to U.S. zoos for breeding as part of a "world captive" population.
Justification:
(a) Most sophisticated techniques available for captive breeding in U.S. zoos.
(b) Endangered species safer if "split" to guard against disease, etc.
(c) U.S. zoos need some Rhinos to justify their massive investment.

Plan reviewed by Forest Department

Rejected

Rhinos continue to be killed at a rate of 2 -4 per year. Extinction normally occurs when total population size less than about 25 individuals. Sabah population reaches this stage before 1990. Extinction.

Accepted

Approval by cabinet

1. Agreement signed
2. Capture operations start in Kretam/ Tenegang area.
3. Construction of facility for breeding in Sabah.
4. Guard force for Tabin Wildlife Reserve.

Memo to

Pemelihara Huatn
can

Tim. Pemelihara Hutan I

The official Representative of IUCN (International Union for Conservation of Nature) for Asian rhinos and captive breeding is arriving in Sandakan tomorrow, 7 May 1985. Specifically, he wishes to come to a final agreement (or cancellation) of the proposed capture of Rhinos in Sabah, West Malaysia and Indonesia. He will be arriving from Indonesia and has already been to Peninsular Malaysia; this is the last phase of his visit.

The Asst. Chief Game Warden is on sick leave now and has asked me to inform you of this matter. He wishes to arrange for a meeting, involving any senior officers who may wish to contribute comments, preferably on 8 May, but later if this is inconvenient.

The purpose will be primarily to decide to support or reject the idea of cooperative international breeding of doomed Malaysian/ Indonesian rhinos.

PREAMBLE

Recognising that the Sumatran rhino is one of the most endangered mammal species in the world and is facing serious threats of habitat loss, poaching and other mortality factors:-

1 The Sumatran Rhino Trust (of the AA2PA) together with the The Department of Wildlife and National Park Peninsula Malaysia and the Sabah Wildlife Department agree to work together on a project aimed at providing this species with the maximum chances of survival.

2. The SRT and AA2PA recognise that as part of their commitment to Conservation of the species, SRT and AA2PA will under take to fund conservation activity beyod their normal emphasis of aquring animals.

3. The Wildlife Departments of Peninsula Malaysia and Sabah recognise that the technical advanced facilities existing in North America will provide for a more rapid increase in numbers of a captive breeding group which potentially could be tapped for re-introductions back into their natural habitats at a more suitable time in the future.

However it is noted that the entire programme will be managed as a single conservation effort for the species and in general will be aligned so that the species stands to gain the maximum advantage.

AGREEMENT FOR A COOPERATIVE PROJECT
BETWEEN MALAYSIA AND THE AAZPA SUMATRAN RHINO TRUST
FOR CONSERVATION OF THE SUMATRAN RHINOCEROS

Background.

~~PREAMBLE~~

1. This agreement is entered into on this date by: The Department of Wildlife and National Parks of Peninsular Malaysia (referred to as " West Malaysia"); the Wildlife Section, Department of Forestry, Sabah, Malaysia (referred to as "Sabah"); and the AAZPA Sumatran Rhino Trust (referred to as SRT). Collectively, West Malysia, Sabah and the SRT constitute the "Parties" and the "Signatories" to this Agreement.

2. The purpose of the Agreement is to establish a ~~cooperative~~ conservation project between the parties as part of a global strategy for conservation of the Sumatran rhinoceros Dicerorhinus sumatrensis (referred to as the "Rhino") being developed under auspices of the Species Survival Commission (SSC) of the International Union for the Conservation of Nature and Natural Resources (IUCN), in which West Malaysia, Sabah, Indonesia, SRT and Howletts-Port Lympne foundation will cooperate in the total conservation of the Sumatran rhino.

3. The goal of the strategy is the long-term survival of the Rhino as a species and as a component of its natural ecosystems.

4. The strategy is justified because:

(A) The Rhino is a greatly endangered species;

(B) The Rhino presently survives in the wild to a great extent in small, isolated populations which may not be genetically or demographically viable for the long-term;

~~(C) The natural habitat of the Rhino is rapidly decreasing due to the growth and development of modern society;~~

(D) The Rhino population is decreasing due to ~~hunting~~ poaching, logging, and a combination of factors ~~cited above;~~

(E) Elimination of this species will deprive mankind of an irreplaceable, natural resource.

(F) This agreement is entered into for the purposes of ~~implementing a~~ supporting conservation program to ~~protect~~ prevent extinction of the Sumatran Rhino ~~from extinction~~ and thereby enrich our environment by preserving for mankind a species of invaluable, scientific, educational and cultural significance.

5. The strategy will attempt to achieve this goal through conservation programs both for:

(A) the protection of viable populations in sufficiently large areas of natural habitat, and

(B) captive propagation to preserve a reservoir of genetic diversity employing animals with no apparent hope in situ of contributing to the long-term survival of the species

6. However, since the expertise and resources of the SRT are largely oriented toward captive propagation, their contributions must concentrate on this part of the strategy providing other limited support for the in situ conservation efforts.

7. Thus, the major objective of this specific cooperative conservation project is to develop a program of captive propagation for the rhino.

8. The primary purpose of the captive propagation will be to reinforce wild populations.

9. The project will be developed in accordance with the guidelines established by the the IUCN Ad-hoc Meeting on Sumatran Rhino conducted in Singapore, 2-4 October 1984 and attended by representatives of the parties to this Agreement. ("The Singapore Proposals"): See appendix 1. (attach the Singapore agreements + IUCN endorsement as an appendix

~~(A) Animals selected for captive propagation are indeed "doomed" according to criteria specified in a Masterplan that will codify the IUCN SSC strategy for conservation of the Rhino ("Foundation Masterplan");~~

~~(B) Currently presumed subspecies will not be mixed, either in captive propagation or translocation, until further work is completed on taxonomy;~~

~~(C) Zoo communities will provide financial support and technical assistance in field capture and transfer operations;~~

~~(D) Bilateral agreements will provide for captive propagation programs in countries of origin as well as North America and Europe.~~

~~(E) Animals that are moved abroad will be on breeding loan from the countries of origin, or under some similarly equitable ownership agreement of sufficient time span to protect all interests;~~

~~(F) All animals placed in captivity and their future progeny will be managed cooperatively as part of a "world population".~~

10. The project will be developed under the oversight of The Sumatran Rhino Foundation ("Foundation") to be established under the auspices of the IUCN SSC. The Foundation will operate as an

independent task-force under aegis of the Asian Rhino Specialist Group of the IUCN SSC. Initially, the Foundation will consist of the Sumatran Rhino Coordinator ("Coordinator") and one representative each from West Malaysia, Sabah, the SRT, Indonesia (PHPA), the Howlett's-Port Lympne Foundation from the United Kingdom, the IUCN SSC Asian Rhino Specialist Group and the IUCN SSC Captive Breeding Specialist Group. The Sumatran Rhino Coordinator will be employed by the IUCN under terms of reference which are available from IUCN.

11. While the major contributions of the SRT should and must be oriented to the captive propagation components of the conservation strategy for the Rhino, the cooperative nature of the project will be further demonstrated by financial & technical support from the SRT to West Malaysia and Sabah for in situ conservation efforts. This financial & technical support will include:

(A) ~~Technical and financial~~ assistance from the SRT to ~~enable reinforced~~ increase protection of viable natural populations and sanctuaries. ~~Since the Wildlife Department in West Malaysia seems to be providing good protection for Rhinos and habitat, the highest~~ priority in this regard will be accorded to the Tabin (Silabukan) Wildlife Reserve in Sabah. An important part of this assistance may be field research conducted collaboratively by Malaysian and SRT investigators.

(B) ~~and for~~ surveys to determine which rhinos are ~~and are not "doomed" according to the Foundation Masterplan criteria~~. suitable for capture

(C) ~~Support~~ Assistance for an innovative "gene pool" project in West Malaysia that in concept will combine elements both of in situ conservation and captive propagation

(D) Training for Malaysian wildlife staff & National Parks Department in management of captive and wild populations.

(E) Transfer of capture and transport technology ~~on the Rhino~~.

SPECIFICS OF THE PROJECT

1. Captive propagation programs will be developed in West Malaysia, Sabah, and North America.

2. Field operations to collect appropriate rhinos will be simultaneously initiated in West Malaysia and Sabah. An SRT Representative (at this writing Tony Parkinson) will coordinate and facilitate these efforts as the Field Supervisor. The field operations will commence within 30 days of signature of this Agreement by all parties.

3. A Management Committee ("Committee") will be formed consisting of seven members. These would include the Director General of the Department of National Parks and Wildlife of Peninsular Malyasia as Chairman; the Director of Research and Management for the Department of National Parks and Wildlife of Peninsular Malaysia; the Assistant Chief Game Warden of Sabah; three representatives from the SRT, one of which will be the Field Supervisor and another of which will be the Species Coordinator for the SRT; the IUCN SSC Sumatran Rhino Coodinator.

3A. The primary function of the committee will be to supervise and facilitate implementation of the project as specified by the agreement and also if required to interpret the terms of this agreement.

However it is recognised that the primary responsibility of implementation of this project rests with the Malaysian parties to this agreement.

4. Because of the long distances and the local necessities of the project, The Field Supervisor would represent the SRT on all day-to-day operational matters such as the coordination and supervision of the capture teams, the construction of the holding pens, the transportion and management of the animals after capture and the basic logistics supporting the operations both in Sabah and West Malaysia.

5. If any ~~item~~ problem develops that cannot be resolved by the Field Supervisor as the Trust representative, and the local authorities, the Management Committee would be consulted by telephone or some other form of rapid communication. If the problem still could not be properly resolved, a physical meeting in a mutually acceptable location can be convened by the Chairman, the Field Supervisor, or a majority of the other members of the Committee. This meeting would be for the purpose of dealing with any major matters not covered in this agreement as well as the management of the field operations in which there was a major disagreement.

6. Funds from the SRT for the project would be directed through the ~~Field Supervisor~~ Management Committee, who is responsible to the Trust and who must present the documentation of costs and a financial statement on a quarterly or more frequent basis as specified by the SRT. At this point, the funds will be delivered to ~~the Chairman~~ a special account of the

Decisions of the Committee are made by Consensus only

Managment Committee who shall act as paymaster in accordance with a budget adopted by the Managment Committee. Payments shall be made by cheque or purchase order signed by any two members of the committee.

7. A field capture team will be supported by the SRT to operate simultaneously in West Malaysia and Sabah. The contractual obligation will cover a 3-year period from the date of signature of the Agreement by all parties. At the end of this 3-year period, signatories to the Agreement will review the project and decide whether it is to be continued, modified or discontinued.

8. The number and identity of animals to be captured in West Malaysia will be determined by the Director General of National Parks and Wildlife in accordance with the criteria delineated by the Foundation Masterplan and subject to the review and ratification of the IUCN Sumatran Rhino Foundation.

At this time, all animals captured in West Malaysia will remain in the country of origin. The captive propagation program in West Malysia will be located at the Melaka Zoo. Funds for adequate facilities to accomodate any and all rhinos placed in Melaka shall be the reaponsibility of West Malaysia.

Additionally, rhinos may be moved to a "gene pool" site to be determined by the Director General. Actual distribution of rhinos captured in West Malaysia between the Melaka Zoo, site of captive propagation in West Malaysia, or the gene pool project will be the decision of the Director General and will depend upon the number of rhino captured during the 3-year period by the West Malaysian capture team.

9. In Sabah, rhinos will also be selected as candidates for capture according to criteria of the Foundation Masterplan. Preliminary analysis has indicated that all animals outside Tabin (Silabukan) Wildlife Reserve and its contiguous environs identified in the report "The Plight of the Sumatran Rhino in Sabah" by P.M. Andau and J. Payne satisfy these criteria and are candidates for immediate attempts at capture. Other groups or populations of Rhino that might be discovered in Sabah in the course of the Project will be evaluated on a case-by-case basis according to the Foundation Masterplan criteria.

Due to the seriousness of the rhino situation in Sabah, it is deemed necessary that a healthy captive population be established without delay. This population is to be built up of animals in fragmented situations and of doubtful value to natural populations in the wild. The aim of this is to establish a reservoir of the Bornean subspies that could be utilised at a later date for re-introductions into the wild when adequate reserves or systems of protection have been established. It is envisaged that five good breeding pairs will be set up at five different facilities i.e. Sepilok and the Cincinnati, Los Angeles, New York and San Diego Zoos.

Animals will be suitably matched by age and sex so as to maximise the breeding potential of this captive group.

The SRT will assist technically and financially in the development of the facility at Sepilok.

The Rhino facility to be developed at Sepilok will be used as an acclimitization station to select such suitable pairs for propagation. The Field Supervisor will determine the suitability of rhinos for the propagation programs at Sepilok and in North America. Disposition of animals considered unsuitable for relocation to North America or for permanent maintenance at Sepilok will be the responsibility of the Managment Committee in consultation with the Foundation.

~~If more than five pairs (10 animals) are captured and deemed suitable for the program, they shall be distributed so as to provide for any adjustments needed to secure demographically and socially suitable breeding pairings among the captive population, provided however that additional animals shall be distributed at the ratio of one animal for the Sepilok facility to four for the SRT North American propagation program.~~

Derivation of all Rhino destined for North America from Sabah will facilitate compliance with the Singapore Proposals recommendation for managment of subspecies as seperate populations in captivity for the near future.

10. By signing this Agreement, it is understood that ~~the Government of Malaysia~~ Both the Deptm. of Wildl. & N.P. in W. Malaysia and the Deptm. of Forestry in Sabah agrees promptly to provide the Sumatran Rhino Trust with all documents needed for the legal exportation of these Rhino from Malysia and their importation into the United States immediately upon their capture.

11. The SRT will support through technical advice and financial help capture teams in both West Malaysia and Sabah. This support shall not exceed US$250,000 in the first year of the project and will not exceed budgets agreed to each year thereafter by vote of the SRT (which shall depend upon the progress of the project as well as financial capability) on a date no later than 1 October in each calendar year.

The SRT will also provide technical and financial aid to the Sabah and Melaka captive propagation programs, to the "gene pool" project, and to <u>in situ</u> conservation efforts on a case-by-case basis to be approved by the SRT from time to time and in each year's budget and not to exceed US$100,000 during the first year and US$75,000 in each of the second and third years.

Further specifics on the amount of financial support will be determined mutually by the parties, project by project, based on the Foundation Masterplan.

Presently agreed upon items would be:

(A) Support for the 2 capture teams financially and technically.

(a) In Sabah, due to limited staff currently available, the SRT will pay salaries and field allowances of all personnel required as determined by the Field Superviser.

(b) In West Malaysia, the organization and payment of the capture team will be the responsibility of the Department of National Parks and Wildlife with the exception that the SRT will pay field allowances for staff not to exceed the amount for this purpose expended by the SRT in Sabah.

(c) Support for the committee to carry out its functions unless otherwise provided for and up to a limit of US $10,000 a year.

(B) Specific items for West Malaysia:

(a) Gene pool project - US$70,000 - to be used to construct staff and research buildings.

(b) 1 Land Rover for West Malaysia to be utilized for gene pool project - US$15,000.

(c) Radio communication system - US$10,000-$15,000

(d) Salary and allowances for one ranger - US$ 7500,-

(C) Specific items for Sabah:

(a) 2 vehicles: 1 pickup truck, 1 station wagon - US$45,000

(b) Radio communication system - US $10,000-$15,000

(c) (2/year) scholarships for the Sabahan staff to attend relevant courses in Indonesia, India or elsewhere. These scholarships would be availalbe at a rate of two/year with a maximum allowance of $10,000/scholarship or a total fund of $20,000/year.

(d) Possible program of field studies, especially concentrating in and around the Tabin Reserve (US$50,000 or expertise, equipment and time of equivalent value over the three-year period of the project), preferably by local scientists.

(e) Construction of holding facilities at Sepolok US$ 20.000,-

12. The Field Supervisor, will divide his time equally between operations in West Malaysia and Sabah. The official headquarters and residence for the Field Supervisor will be established in West Malysia, but a collateral base will be established in Sabah. The Field Superviser will develop the schedule for distribution of his activities in consultation with the Management Committee and in relation to the evolving situation in the field.

13. The primary assignment of the Field Superviser will be the Rhino project. However, he will also be available to advise and assist on other projects in West Malaysia (e.g., seladang) and Sabah (e.g. proboscis monkey) as time permits so long as in the

opinion of the Field Superviser and the Managment Committee these activities do not detract from the primary assignment. Similarly, the Field Superviser may be available on a very limited basis, not to exceed 2 weeks per year to advise on the capture operations for the Rhino proposed in Indonesia as part of the IUCN SSC masterplan.

14. Technical assistance provided by the AAZPA SRT pursuant to the above paragraphs may include qualified animal keepers and veterinarians, curatorial guidance and support, and apprentice-training in West Malaysia and Sabah and at appropriate AAZPA zoos for qualified Malaysian curators, keepers and veterinarians. Such technical assistance during the first year of the project will include:

(A) Qualified keepers and veterinarians on an as-needed basis to be determined by the Field Supervisor at the captive facility to be developed at Sepilok and Melaka

(B) Veterinary support for the actual capture operations, on a short notice and as-needed basis to be determined by the Field Supervisor.

(C) Curatorial support on a semi-continuous basis for the captive facility at Sepilok and similar operations such as Melaka in West Malaysia. Support to be provided by alternating among the institutions of the SRT on at least a 4-6 week basis possibly with some time lapse in between the tours of duty.

(D) Training in both Malaysia and at appropriate AAZPA zoos for Malaysian curators, keepers, and veterinarians to be negotiated on a mutually agreed upon level. Internships at SRT facilities for a period of eight weeks each would be availble in the first year to two selected staff members from Sepilok and two selected staff memebers from Melaka or other appropriate facilities in West Malaysia.

(E) Through these various mechanisms, there will also specifically be an attempt to provide information and instruction in various reproductive and other technologies applicable to the conservation strategy for the Rhino and programs for other wildlife. In particular, the SRT will demonstrate technology in enocrinological analysis of urine and blood, embryo transfer and artificial insemination, and various genetic analyses (e.g. karyotypic and electrophoretic), capture and transport methods for the Rhino and other large mammals.

Technical assistance in subsequent years will be provided upon favorable review of the Sumatran Rhino Project by West Malaysia, Sabah, the SRT, and the Foundation.

15. The SRT will also provide US$25,000 to IUCN toward support of the contract for the Sumatran Rhino Coordinator during ~~the~~

each
~~first~~ year of the project. ~~Similar amounts will be considered in the second and third year upon satisfactory review of the results of the first years results of this consultancy~~.

16. The SRT will collaborate as appropriate with West Malaysia and Sabah in attempts to attract outside funds from corporations, foundations, organizations, and philanthropists to support the conservation strategy for the Rhino.

17. All animals placed in captivity in West Malaysia, Sabah, and North America will be managed cooperatively as part of a "world population" under coordination of the Sumatran Rhino Foundation .

18. All rhinos captured in the Project shall remain the property of the Malaysian government in perpetuity subject to the conditions of this Agreement. All animals transported to North America for captive propagation shall be designated to the Sumatran Rhino Trust or its successor organizations on ~~permanent~~ breeding loan.

19. Progeny produced in North America will also be on ~~permanent~~ breeding loan to the SRT or its successor organizations until the North American population attains demographic stability and a genetically effective size of 25. Thereafter, offspring from the North American population must and will be available for restocking adequate and protected reserves in Malaysia as the local management authorities advise in accordance with the Foundation Masterplan.

The number of rhinos potentially to be returned to Malaysia under these circumstances will at a minimum equal the number originally moved from Malaysia to North America. Beyond this number, repatriation of Rhino will continue as deemed necessary by the local management authorities and the Foundation Masterplan at a rate that does not detract from the self-sustaining status of the North American population.

Germplasm, which may be a more appropriate mechanism than actual animals in many case for transfer of genetic material from captive to wild populations, can and will be returned to Malaysia immediately as the technology can be applied and the local management authorities and the Foundation Masterplan so recommend.

20. This Agreement can be amended only by mutual and unamimous agreement of the signatories.

~~21. During the period of this Agreement, West Malaysia and Sabah~~ will not enter into cooperative ~~projects~~ on Sumatran Rhino with any other zoo, ~~consortium~~ of zoos, or other parties without the ~~knowledge~~ and agrrement of the SRT.

22. It is understood that the signatures of the representatives of West Malysia and Sabah to this Agreement obligates their Wildlife Departments ~~and their Governments~~ to the terms of the Agreement. Likewise, the signature of the Species Coordinator of the SRT obligates the SRT to the terms of the Agreement.

23. Parties to this Agreement appreciate that the financial and technical support of the AAZPA Sumatran Rhino Trust is provided in the hope of securing the long-term survival of the Sumatran Rhinoceros as a species and as a component of its natural ecosystems. The AAZPA Sumatran Rhino Trust seeks to contribute to the long-term survival of biological diversity through the captive propagation of species that might otherwise be lost or so greatly reduced in numbers as to be highly vulnerable to extinction. The expertise and support of the Trust is and must be directed primarily toward the fulfillment of this goal through preservation by captive propagation. In fulfilling these goals, the SRT seeks to assist [West Malaysia and [Sabah in its own attempt to propagate the Sumatran Rhino and to provide such limited support as SRT resources permit to related efforts, as part of the conservation strategy for the Rhino, to preserve wild populations where these are adjudged viable using modern criteria of biological conservation. The SRT applauds and does not seek to reduce, replace or supplant the efforts of the Malaysian government to protect its national wildlife in a state of nature.

[the Dept. of Wildl. & N.P.

[the Wildlife Section, Dept. of Forestry

In Witness Whereof, the following parties have executed this Agreement in such capacity and on such date as recorded below.

Mohd. Khan bin Momin Khan
Director-General
Department of National Parks
and Wildlife
Peninsular Malaysia

Date

Witness

Mahedi Andau
Assistant Chief Game Warden
Wildlife Section
Department of Forestry
Sabah, Malaysia

Date

Witness

Warren Thomas, D.V.M.
Species Coordinator
AAZPA Sumatran Rhino Trust

Date

Witness

Joining hands to sa

Jakarta Post April 20, 1985

By Peter Jackson

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, a joint effort of government agencies and professionals in management of species in captivity.

The Indonesian and Malaysian governments, together with selected zoos in Britain and the United States, have undertaken a major long-term program to save these rarely-seen rhinos from extinction.

Under the program, the rhino will receive better protection in sufficiently large areas of its natural habitat. There will be a captive breeding program to preserve its genetic diversity in its home countries, as well as in North America and Europe.

In addition an education program will be launched to enhance public awareness of the rhino's plight and to generate support for its conservation.

Numbers declining

Concern about this secretive forest animal grew recently as a series of studies revealed that its numbers were declining fast.

Late last year in Singapore the Species Survival Commission of the International Union for Conservation of Nature and Natural Resources (IUCN) convened a meeting of those interested in remedial action. Out of that meeting came the estimate that not more than 850 survive, and perhaps fewer than 500.

At last November's IUCN General Assembly in Madrid, the Sumatran rhino was named among the world's top twelve most threatened animal species.

Now agreement on launching the conservation program that may radically change this state of affairs 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, where zoos have an established record of breeding success with other rare animals.

As might be expected, the largest population of the Sumatran rhino *Dicerorhinus sumatrensis* is found in Sumatra, with 250-400 in the vast Kerinci-Seblat mountains on the west coast, and between 130 and 200 in Gunung Leuser in the north. There may be up to 60 rhinos in the Barisan-Selatan reserve in the extreme southwest.

Peninsular Malaysia probably has at least 35 in Taman Negara (National Park), and there may be 12 or so in Endau-Rompin on the border of Johore and Pahang states.

Elsewhere there are only small clusters of rhinos. Southeastern Sabah has between 15 and 30, and there may still be some in Kalimantan — Indonesia's part of the island of Borneo. Burma may still have a few, but it is doubtful whether any survive in Thailand.

'Pocket rhino'

The Sumatran rhino is the smallest of the five surviving rhino species — the giant white rhino in Africa is about five times as heavy. The Sumatran has two horns like the two African rhinos, where the Indian and Javan rhinos have only one. The skin along its back is woolly, rather like a buffalo's, and scientists believe it is closely related to the Woolly Rhino which became extinct in prehistory and which, strictly speaking, owns 'copyright' of the name.

The Sumatran rhino lives only in dense tropical forests, unlike other rhino species which favor open country or riverside areas.

A century ago Sumatran rhinos still roamed the Himalayan foothills in India, and ranged through vast undisturbed forests in southeast Asia and to the islands of Sumatra and Borneo.

The current threat to the species comes from hunting for its horn and other products (which are highly prized in folk medicine in China and other parts of Asia) and from erosion of its habitat through human settlement.

The Sumatran rhino is an extremely difficult animal to study. Dr. Nico van Strien, a Dutch mammologist who has been appointed coordinator of the Sumatran Rhino Conservation Program, 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.

"Once I had a really good view of a female with a young calf. The other occasions were just glimpses in the forest," he

ave the elusive 'woolly' Sumatran rhino

says. "Swiss biologist Marcus Borner saw only one during his studies in Gunung Leuser, while Rodney Flynn, an American specialist, saw only one or two in Malaysia."

In these circumstances trapping the rhinos for captive breeding is likely to be very difficult. It has now been many years since any specimens were captured and the exercise never resulted in any breeding success.

"It is easy to put the traps in a rhino area, but then it is just a matter of waiting to see whether a rhino decides to fall into the trap. That could take a long time," says Dr. Van Strien.

Risks

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 preserve.

There are risks in the captive breeding program, 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. Whe 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."

The last captive Sumatran rhino in captivity died in Copenhagen Zoo ten years ago. It was one of three which survived a capture operation in Riau, Sumatra, in 1958 to start captive breeding. At that time six females were caught, while a male escaped. However, recently a young female rhino wandered far from the reserve of Sungai-Dusum in Malaysia and was captured by villagers. The Game Department was able to save it and it is now in the Malacca Zoo, where a captive breeding center is to be established.

The organizers of the new program are determined to succeed. Dr. Van Strien has the task of drawing up the master plan, which will be multinational and will include collaboration with Western zoos. They will provide support for conservation in the wild and technical assistance in field capture and transfer operations.

Bilateral agreements will provide for captive breeding in the countries of the rhinos' origin, as well as in Britain and the United States. All the captive animals and their offspring will be managed cooperatively as a 'World Population.'

Three subspecies of the Sumatran rhino coexist with the true form in some areas. Until further studies have been carried out, care will be taken not to mix the subspecies with the species, either in captive breeding or in translocations in the wild.

Poachers

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 program because tney have the stamina to remain in the forest for the long periods necessary to locate rhinos.

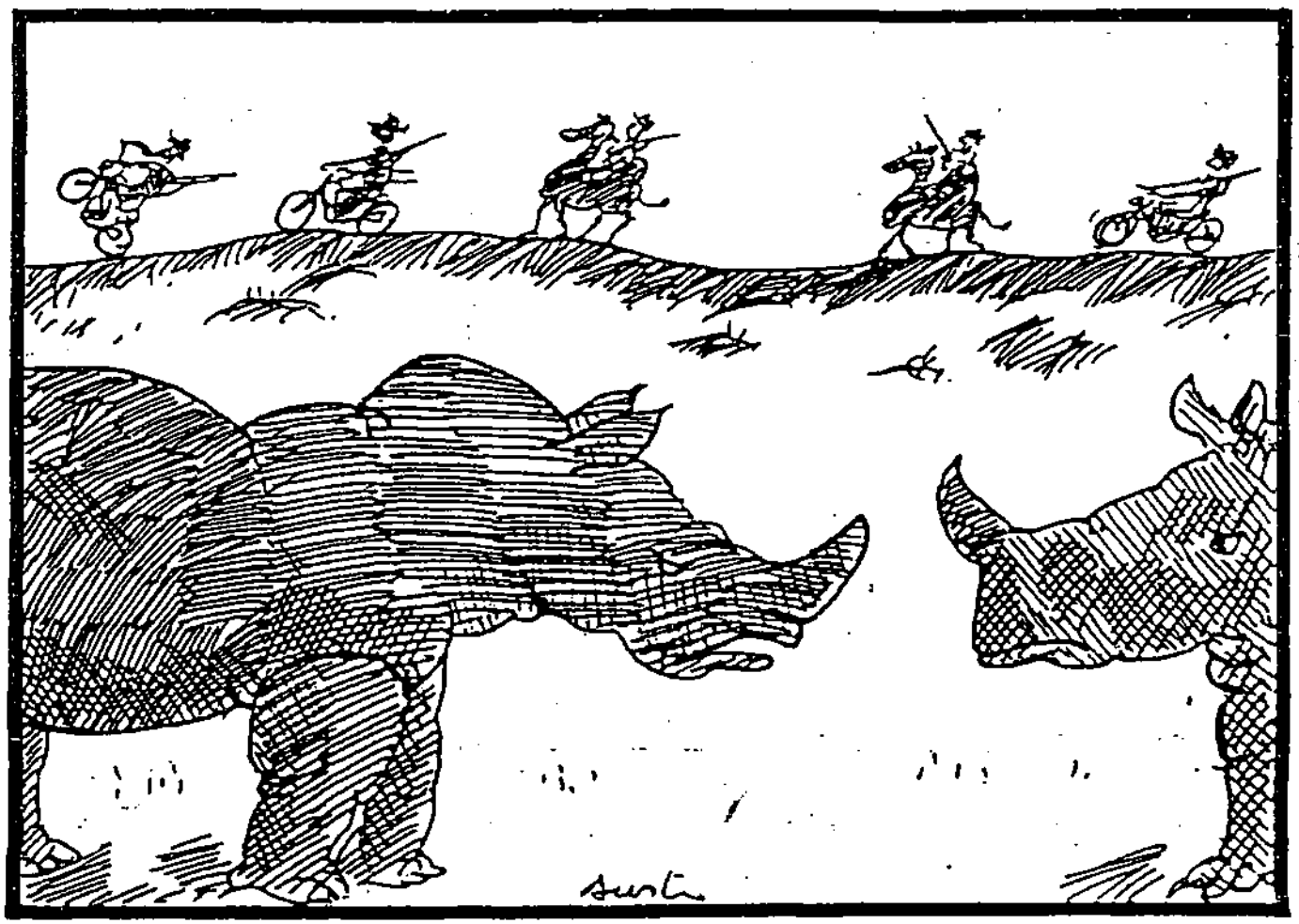
Captive breeding as a conservation measure has had some signal successes in recent years — the rehabilitation of the Arabian Oryx is the example that springs soonest to mind. But many zoologists remain uncovinced of its worth. The efforts to rehabilitate the Sumatran rhino provide an intriguing new arena for this debate.

Some would argue that such costly and elaborate manoeuvres to save 'basket case' species run counter to natural selection and distract attention and resources from higher conservation priorities, such as the deflection of human pressure from habitats and species still in reasonably good shape.

Education campaigns to discourage the medical use of animal parts like rhino horn, which is used mainly as a psychosomatic cure of sexual impotence, may be another longer-term answer. But the planners of the rehabilitation program are mainly concerned with keeping conservation options open by sheltering at least some breeding animals from further harm.

And their problem is not so much a matter of principle, more a matter of finding the publicity-shy star of the show.

— *IUCN*



"Looks like some kind of traveling circus!" *(Earthscan)*

The
Borneo Bulletin

SATURDAY, MARCH 9, 1985

LARGEST AUDITED CIRCULATION OF ANY NEWSPAPER IN BRUNEI, SABAH AND SARAWAK

40 cents

VOL. 32 No. 62

Mrs Thatcher

Battle brews over rhino export plan

A CONTROVERSIAL plan to round up and export rare Sabah rhinos to America for breeding has angered Malaysian conservationists.

The plan, believed to be connected with a worldwide conservation group, the International Union for the Conservation of Nature, is to reintroduce the rhinos' offspring to the Sabah jungle to try to save them from extinction.

Sources in Kota Kinabalu said officials from an American zoo were in Sabah last year doing background work and approached the Sabah government.

The state Wildlife Department, a branch of the Foresty Department, confirmed the plan was being considered but has released no further information.

Sources in the department said it is thought six breeding pairs of rhinos were wanted and some would come from Peninsular Malaysia and Indonesia because of the low numbers in Sabah.

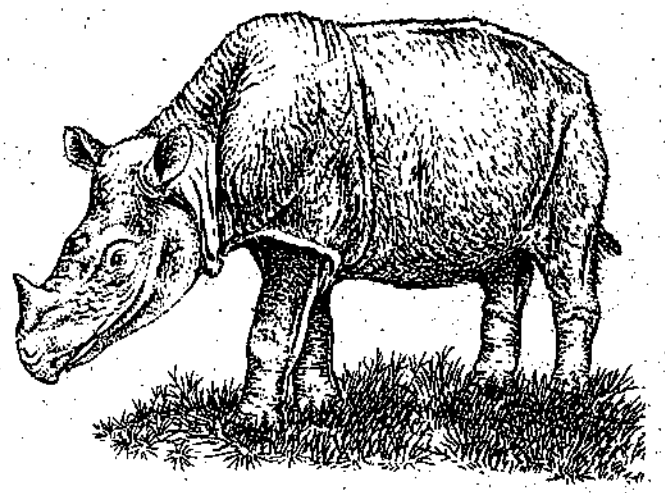
Only about 10 of the rare Sumatran rhinoceros are thought to be left in Sabah.

In Kuala Lumpur, a council member of the Malayan Nature Society, Dr Kiew Bong Heang, said: "I will kick up an international fuss if it is true. The idea of capturing any of the rhinos for export is a serious cause for concern."

He said catching methods had not been tested and the long journey to the United States might be fatal to the animals.

If any breeding was to be tried, it should be done in Malaysia.

"The only known breeding success occurred in Calcutta zoo in 1890," he said. "The best way of ensuring the survival of this animal is to give it full protection."



SUMATRAN rhino ... export fears

Thatcher to visit Brunei

BRITISH Prime Minister Mrs Margaret Thatcher will make an historic trip to Brunei next month.

It will be the first visit by a British premier to the Sultanate.

Mrs Thatcher, 59, will meet His Majesty the Sultan and Yang Dipertuan and other royal family members during her half-day stay on April 9.

Brunei will be Mrs Thatcher's third stop of a nine-day tour which includes Peninsular Malaysia. The trip was postponed from last September because of Britain's coal miners' strike which ended last week.

Her visit is at the Sultan's personal invitation. The British High Commissioner to Brunei, Mr Francis Cornish, said the tour was "very significant."

"It is very clear, high-level proof of the importance that Britain attaches to Brunei and the rest of this region, politically and economically," he said.

Mrs Thatcher's talks with Brunei officials are expected.

workers of the emporium jobless and five families homeless.

The fire was spotted at 8.45 am by a policeman on duty at the junction of Jalan Sulta-

control after an hour.

Initially, they faced a water shortage but the problem was overcome when water was

SABAH TIMES 13 March 1985

Warning on capture of Sumatran Rhinoceros

KUALA LUMPUR, Tues. — The Wildlife Protection and National Parks Department said today that action would be taken against those who capture the endangered Sumatran Rhinoceros for export.

A department spokesman said the areas where the rhinoceroses were found, such as Endau-Rompin in Johore and the National Park, were being monitored.

Commenting on a press report that several American zoologists were planning to capture the rhinoceroses and rear them in the U.S., she said the department had so far not received any reports regarding the matter.

However, she said that Malaysia had embarked on an agreement on a joint project with the association of American Zoological Parks and Aquariums with the main objective of conserving the Sumatran Rhinoceros in its natural habitat.

Subsequently, many zoolgists had come here to conduct studies on the animal but none had so far stated their intention to capture the beasts to be brought back to the U.S., she added.

The president of the Environmental Protection Society of Malaysia, Encik Gurmit Singh, said there was no reason for the rhinoceroses to be exported when they could not meet local demand.

He said the breeding of the animal should be done here in its natural habitat with the participation of Malaysian zoologists instead of being conducted by foreigners.

According to the press report, the American zoologists plan to hire local trackers to build traps and use helicopters in the venture.

Some of the animals would be given to local zoos and the rest flown to the U.S., the report added. — Bernama

Mr Gurmit Singh, president of the Environmental Protection Society of Malaysia, said any breeding of the endangered species should be done in its natural habitat, or, if that is not possible, within the same country.

A multi-million dollar project by a group of American zoos to save the Sumatran rhino was announced early last year.

A London Observer report said the group planned to use helicopters, traps and transport aircraft to round up the rhinos and establish breeding herds in America.

The scheme, then in preparation stage, was linked to Indonesia.

The group, the Association of American Zoological Parks and Aquariums, planned to use trackers to find the animals, fly them to local centres where half would be kept in local zoos and the rest sent to America.

There, breeding research would be carried out to try to raise numbers and some would be reintroduced to the wild.

This method has been used successfully once when the last survivors of the Arabian Oryx were shipped to Phoenix Zoo, Arizona

● TURN TO PAGE 2

in eyes of Pasok

...ion party Pasok was examining its ... with the surprise registration of rebel ...atuk Joseph Pairin Kitingan's new ...y.

The party's lawyer Dominic Putcheary was in Kuala Lumpur early this week pressing for registration, which was granted on Tuesday.

He arrived in Kota Kinabalu at 1pm on Wednesday with the registration certificate.

Datuk Pairin said no date had been set for an official launch.

The new party's symbol of two clasped hands on a background of a map of Sabah and the state flag was unveiled at a press conference in Penampang on Wednesday.

Pasok members had been hoping the recruitment of Datuk Pairin last week would breathe life into their party.

Rhino battle

● FROM PAGE 1

There are now more than 200 and some have been reintroduced to Oman.

Doing the same for the Sumatran rhino would be extremely difficult. The rhino, the smallest of the five surviving rhino species, was once common in South-east Asia but logging and hunting has led to a drastic decline and there are now thought to only a few 100 hundred left. There are none in captivity. The last zoo animal died 11 years ago.

The fear is they are so rare they have little chance of meeting and mating and there is also danger of inbreeding.

The animal was thought to be extinct in Sabah until discoveries in the early 1980s proved its existence.

The few survivors are thought to be in the Lahad Datu area on Sabah's East Coast.

In 1981 the carcass of a young animal was found in the Silabukan Forest Reserve near Lahad Datu and last year the remains of two more — believed to be the victims of hunters — were uncovered in the same area.

The penalty for killing the protected animal is five years' jail and a $5000 fine.

The International Union for the Conservation of Nature has more than 450 members in 100 countries.

The Department of wildlife and National Parks in Malaysia, which declined to comment, and Brunei are members.

The union, which has headquarters in Switzerland, aims to monitor ecosystems and species worldwide and plan, promise and advise or assist in conservation action.

Man held on rape charge

A 35-year-old farmer is being held by police in connection with the alleged rape of a primary school girl at a remote coconut plantation in ... Sunday.

THE RHINOCEROS IN SABAH:

A PLAN FOR SURVIVAL

BACKROUND

The Asian Two-horned or Sumatran Rhinoceros was once widespread throughout much of South-east Asia. But wherever people have settled, the species has disappeared. Even in the remotest areas, it has been reduced to a few remnants, or totally exterminated, as a result of excessive hunting coupled with a slow breeding rate.

Around the turn of this century, the Rhino was found throughout much of Sabah and was regarded as common on the east coast. Now, the future of the species hangs in the balance. Without immediate intervention by Man, it will not survive.

THE RHINO SITUATION IN SABAH COMPARED TO THAT ELSEWHERE

The Sumatran Rhinoceros now occurs in eastern Sabah, parts of Peninsular Malaysia and parts of Sumatra. (It may also occur in central Borneo and in remote parts of mainland South-east Asia, but chances of long-term survival in these regions are very small).

In Peninsular Malaysia, survival prospects are relatively good. Firstly, there are several well-established Parks and Reserves with breeding populations of Rhino. Secondly, the Department of Wildlife and National Parks has a large number of personnel to guard and monitor the Rhinos. Thirdly, although poaching was and still is a factor to be considered, there is neither a long tradition of hunting Rhinos, nor a large human population exerting continuous hunting pressure in all forest areas. Fourthly, very few people have access to guns.

In Sumatra, also, survival prospects seem fair. Firstly, there are at least two very extensive and remote forest regions - Kerinci-Seblat (200,000-400,000 ha.) and Gunung Leuser (140,000-800,000 ha.) with the largest remaining Rhino populations. Secondly, while poaching is a threat, guns are scarce.

The situation is very different in Sabah. Firstly, guns are more freely available than in most other parts of South-east Asia. SINCE THE FIRST SUGGESTION TO CATCH RHINOS FROM VULNERABLE SITUATIONS IN SABAH WAS MADE IN 1980, THERE IS EVIDENCE THAT AT LEAST ELEVEN RHINOS HAVE BEEN KILLED IN THE STATE, MOST OF THEM WITH GUNS. Secondly, there is an old tradition of hunting Rhinos, dating back to early trade with China. Probably the majority of Sabahans, if given the chance, would kill a Rhino if they saw one, for the valuable horn. Thirdly, there are many non-Sabahans working in logging and plantation camps throughout the state, who are fully aware that several years' salary can be gained by killing a Rhino. Several Rhinos reported killed in recent years were dispatched by such people. Fourthly, most areas with Rhinos in Sabah - including Wildlife Reserves - are

being or will be selectively logged, an activity which disrupts breeding, and facilitates access for poachers. Fifthly, Sabah is undergoing rapid forest clearance for agriculture in places where Rhinos still survive. Sixthly, the agency responsible for wildlife protection has only about 20 field staff, whose responsibilities include law enforcement, elephant control, care of Sepilok and birds' nests caves, in an area of 7 million ha.

In 1980, the need to catch those Rhinos living outside of protected areas was urgent. In 1983, when the American Association of Zoo Parks and Aquariums (AAZPA) made contact with the Sabah Forest Department, the need was still more urgent. The existence of Tabin Wildlife Reserve and other protected areas is not a guarantee that Rhinos will survive in the wild state in Sabah. Every possible safeguard is needed to maximise the chances of survival. Abandoning the plan for captive breeding at this stage may be equivalent to condemning the Rhino to extinction in Borneo.

THREE OPTIONS FOR RHINO CONSERVATIOON IN SABAH

The basic policy for Rhino conservation, both in Sabah and elsewhere, has already been decided by the appropriate government agencies and endorsed by the International Union for Conservation of Nature (IUCN - the body responsible for international conservation matters). Policy is to (1) make every effort to conserve viable populations in the wild state and (2) catch those Rhinos which are at risk from poaching and have little chance of survival, and bring them into a situation where they can contribute to the species' survival.

In practice, two areas have the potential to support viable wild populations in Sabah: Tabin Wildlife Reserve, which has the densest concentration of Rhinos, and the permanent block of Forest Reserves which includes Danum Valley, where rhinos occur but at very low density. Rhinos in both these areas are, of course, at risk from poaching: at least four are believed to have been killed in Tabin in the past five years, and at least two in the Forest Reserves. Nevertheless, attempts will be made to conserve wild populations in both areas.

Rhinos in neither of these areas, especially those in areas allocated for agriculture, are at high risk from poaching and cannot contribute to the survival of the species. There are three basic options for saving such Rhinos so that they may usefully contribute to the species' survival.

(1) Translocation to protected areas

This superficially attractive option is not recommended. Firstly, when large mammals are translocated, they normally move long distances, presumably in an attempt to relocate their original home area. They are unlikely to stay where they are put. Secondly, Rhinos are at risk from poachers even in

protected areas; only the land itself has effective legal protection in Forest Reserves. Thirdly, news of a translocation project would attract poachers. Fourthly, there must be adequate funding to follow up the success, or otherwise, of the project. This will involve a long-term commitment to radio-tracking from aeroplanes. Fifthly, most people in Sabah would not have a chance to see the Rhinos.

(2) Captive propogation exclusively within Sabah

This may seem to be the ideal solution, but there are several problems. Firstly, there must be a commitment to long-term funding, running into millions of ringgits during the first few years alone and stretching over decades. Secondly, it is advisable to spread the risk of "keeping all the eggs in one basket". The security aspect should not be underestimated - poachers will undoubtedly try to kill Rhinos, wherever they are situated within Sabah. Also, disease may strike unexpectedly. Thirdly, capture must start as soon as possible. It will take time to raise funds, erect facilities and train personnel.

(3) Cooperative project for captive breeding, with the Department of Wildlife and National Parks (West Malaysia) and the AAZPA, with endorsement from IUCN

The proposal for such a project has been evolved over two years of discussion. The parties involved in drawing up this proposal are;

Game Branch (Wildlife Section), Sabah Forest Department - the agency responsible for wildlife conservation outside of Parks in Sabah.

Department of Wildlife and National Parks - the agency responsible for wildlife conservation in Peninsular Malaysia.

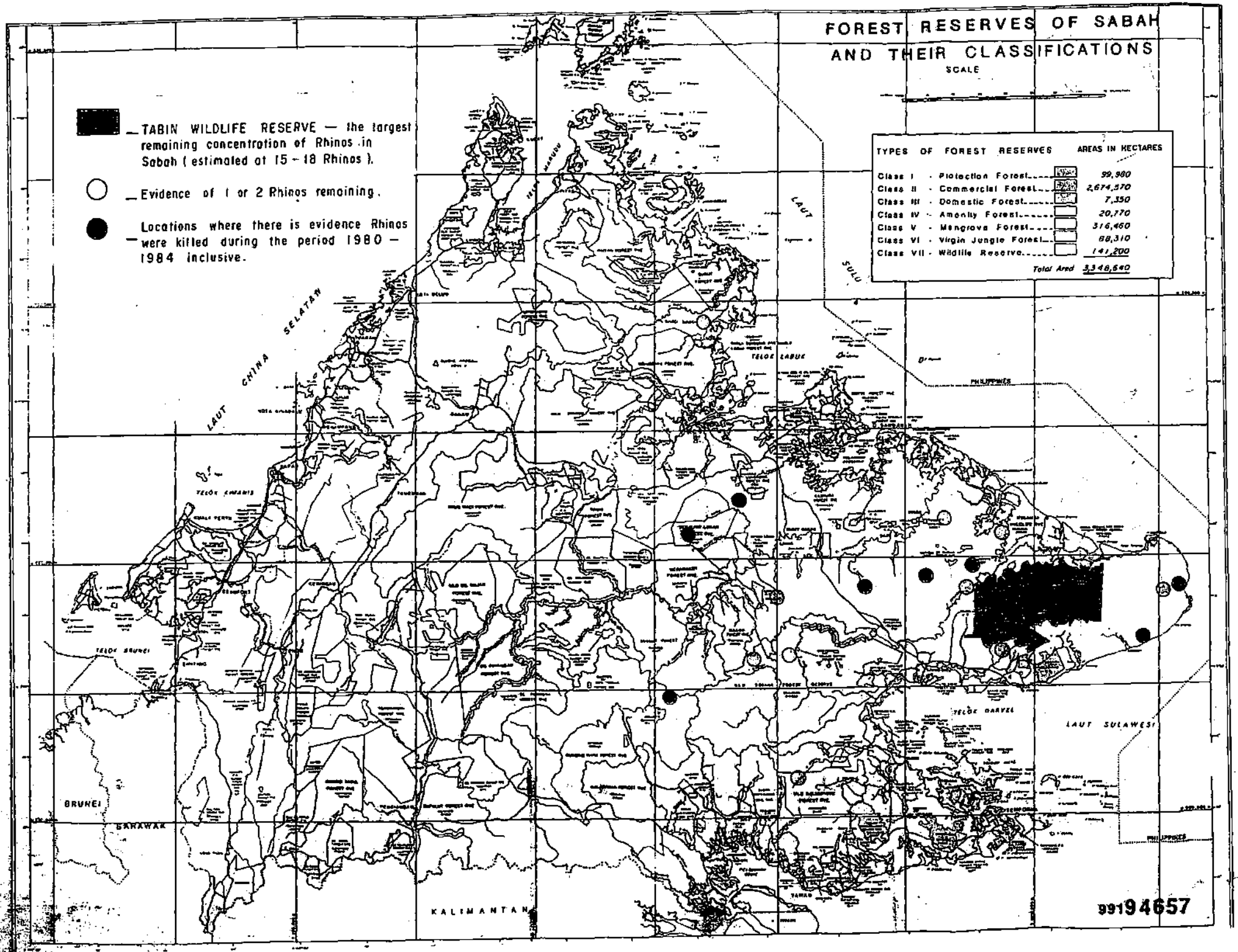
International Union for Conservation of Nature - the agency responsible for advising on major international conservation issues, including captive breeding of endangered species.

The American Association of Zoo Parks and Aquariums - an organisation representing many zoos in North America, with a commitment to conservation, especially through captive breeding of endangered species.

In October 1984, these four parties met in Singapore Zoo with representatives of the official Indonesian wildlife agency and a British zoo, the latter two wishing to initiate a similar project with Rhinos in Sumatra. After thorough discussion of all the issues involved, it was agreed in principle at the meeting that while conservation of wild populations was first priority, captive breeding of doomed Rhinos should be done as a back-up. Malaysia would seek funding and technical advice from the American zoos, while Indonesia and the British zoo would operate

in parallel. Subsequently, IUCN endorsed the proposal. Since December 1984, Malaysia and a small group of U.S. zoos dedicated to the project have been developing a detailed plan. Malaysia has been negotiating as one unit. The IUCN has appointed a special coordinator to oversee the project.

In principle, the plan is to establish breeding facilities in Peninsular Malaysia and Sabah. Once these have been established, a proportion of Rhinos subsequently caught will be sent on loan to those U.S. zoos which have funded the project. This will serve not merely to pay back the zoos' financial input, but to spread the risk of disease or accidental death. The Rhinos will be regarded as a "world population", and a certain amount of exchange of Rhinos is envisaged to counter the very serious and inevitable problem of genetic inbreeding, which is always encountered after more than one generation of captive breeding among related individuals. Release of captive bred Rhinos is envisaged only once a successful captive world Rhino population is underway, and when <u>adequately</u> protected areas are available in the country of origin.


FOREST RESERVES OF SABAH
AND THEIR CLASSIFICATIONS
SCALE
TABIN WILDLIFE RESERVE — the largest remaining concentration of Rhinos in Sabah (estimated at 15 – 18 Rhinos).
Evidence of 1 or 2 Rhinos remaining.
Locations where there is evidence Rhinos were killed during the period 1980 – 1984 inclusive.
TYPES OF FOREST RESERVES
AREAS IN HECTARES
Class I - Protection Forest 99,980
Class II - Commercial Forest 2,674,370
Class III - Domestic Forest 7,350
Class IV - Amenity Forest 20,770
Class V - Mangrove Forest 316,460
Class VI - Virgin Jungle Forest 88,310
Class VII - Wildlife Reserve 141,200
Total Area 3,348,640
LAUT CHINA SELATAN
LAUT SULU
LAUT SULAWESI
PHILIPPINES
BRUNEI
SARAWAK
KALIMANTAN
TELOK BRUNEI
TELOK DARVEL
TELOK LABUK
TELOK KIMANIS

19

OUTLINE PROPOSAL FOR

CAPTIVE BREEDING FACILITY

FOR

RHINOCEROS AT TABIN WILDLIFE RESERVE, LAHAD DATU, SABAH

STRICTLY CONFIDENTIAL: NOT FOR PUBLICATION OR CIRCULATION

23 January 1985

1. A note on the species

The species of Rhinoceros occuring in Sabah is known as the Sumatran or Two-horned Asian Rhinoceros (scientific name Dicerorhinus sumatrensis). It also occurs in restricted parts of Peninsular Malaysia and Sumatra, but there have been no reliable reports from Kalimantan, Brunei or Sarawak for many years and it may be extinct in those areas. The form occuring in Sabah is regarded as a different race from those occuring elsewhere in Malaysia and Indonesia. The Sumatran Rhinoceros is smaller than the other four species of Rhinoceros which exist in Africa, India and Java, and is the only hairy species. Unlike the other four species, it is a strictly forest-dwelling animal, which feeds mainly on the leaves of small forest trees.

2. Why captive breeding is proposed

Formerly, this Rhinoceros was widespread throughout South-east Asia. As a result of ruthless hunting over hundreds of years, it is now very rare and in serious danger of extinction. It has been and continues to be persecuted for all parts of the body and especially the horn, which is believed to have strong medicinal properties. The situation now is that small breeding populations occur in four areas: Tabin Wildlife Reserve in Sabah, Endau-Rompin in Peninsular Malaysia, and Gunung Leuser National Park and Gunung Kerinci in Sumatra. There are other areas where the species occurs, but where numbers are so small that there is little hope that it will survive.

Even the four larger populations are under continuous danger from illegal hunting and from "inbreeding", which means that increasing numbers of defective young are born, a proven and inevitable result of small populations. The Tabin population is estimated at about 20 Rhinos, which is already regarded as dangerously small for long-term survival. All four areas mentioned above are insecure from human population pressure and land development in the long-term future.

There are several areas in Sabah (and in Peninsular Malaysia and Sumatra) where Rhinos are now living in very small numbers and isolated from the larger populations. These Rhinos are effectively extinct already, because they are no longer breeding. There is evidence that at least two Rhinos have been killed illegally every year over the past five years in Sabah, both within and outside Tabin Wildlife Reserve. The death of every individual has an adverse effect on the chances of survival of the species.

To make use of the isolated, doomed Rhinos and help to save the species, two main options are available: either to catch them and release them in a protected Reserve or Park, or to catch them for

breeding in captivity. The first option has several disadvantages: none of the existing Reserves are ideal, either because they are too small, or unsuitable for Rhinos or inadequately protected; translocation of this kind attracts poachers; experience of large mammals elsewhere shows that they normally attempt to find their way back to their original home; the success or otherwise of the project cannot be judged. The second option has several advantages: the Rhinos caught can be managed to maximise breeding rate; they are safer from poachers; perhaps most importantly, they can be seen by people, both Sabahans and foreign tourists.

Captive breeding is proposed, therefore, as a means of helping to save the species from extinction, while at the same time attracting interest from both local visitors and foreign tourists.

3. Previous attempts to initiate captive breeding in Sabah

Since early 1983, attempts have been made to initiate a captive breeding project in Sabah. Firstly, the American Association of Zoo Parks and Aquariums (AAZPA) proposed to finance capture of Rhinos, with some of the captured animals remaining at a facility in Sabah and some going to North American Zoos. Although the Sabah Chief Minister gave his support in principle to this proposal in October 1983, both the Sabah Forest Department and the American zoos were reluctant to go ahead, knowing that there was objection from several quarters both within Sabah and in Peninsular Malaysia to Rhinos being allowed to leave Sabah. Eventually, in October 1984, all parties, both Malaysian and international, with an interest in captive breeding of Rhinos, met in Singapore, where an international cooperative programme was worked out, involving Peninsular Malaysia, Sabah, Indonesia, zoos in U.S.A. and U.K., and the relevant international body, the International Union for the Conservation of Nature and Natural Resources (I.U.C.N.). Subsequently, progress has stopped because the parties involved cannot agree on the amount of contribution to be made by the U.S. zoos. It is possible that a separate agreement between a British zoo and the Indonesian wildlife agency, P.P.A., may go ahead, whereby Rhinos would be loaned from Sumatra to the British zoo.

A copy of the main points resulting from the Singapore meeting is enclosed. Note that agreement to captive breeding has been given by I.U.C.N., which views such a project as part of an international effort to preserve the species, along with protection of wild populations in Reserves, and education.

4. Requirements for a Captive Facility at Tabin Wildlife Reserve

The five main requirements for a captive facility at Tabin Wildlife Reserve are:

- a commitment for adequate funding for an indefinite period (at

least 5 years).

- a dedicated group of personnel to locate, capture, transport and maintain the Rhinos.

- a well-organised system for capture and transportation of Rhinos.

- a well-maintained facility with constant supervision and adequate veterinary care.

- access and marketing to promote visitor use, especially tourists.

These requirements are considered separately below.

5. The Captive Facility at Tabin Wildlife Reserve

The exact site should be selected at an early stage. A likely choice would be where the Lipad River crosses the main logging road which forms the western boundary of Tabin Wildlife Reserve. (see map). This site has good access, a permanent water supply and a natural mineral source (mud volcano) not far away.

The facility would have three or four main components:

- three or four small compounds for intensive care of newly captured or sick Rhinos and for visitor display.

- a large fenced area of essentially natural habitat.

- quarters for staff and visitors.

- (possibly) a temporary facility for use in the early stages while a permanent facility is constructed and modified if necessary.

Advice should be sought from zoos with Rhino breeding experience and from the Tamaraw captive breeding project in the Philippines.

6. Method of Capture and Transportation of Rhinos

Experience with other large mammals in tropical forests indicates that the Rhinos will have to be trapped (anaesthetic dart guns are impossible in conditions prevailing in Tabin).
The first step will be to locate Rhinos isolated outside the Reserve boundary. Offering substantial rewards for information which results in successful capture will be helpful. There will be at least one, and preferably two or three, full-time teams to construct traps and deal with caught Rhinos. They will be paid moderate salaries, with the promise of substantial bonuses for successful capture. They will be provided with a vehicle and radio-communication. Gathering materials for traps in the forest

is extremely time-consuming and disturbing. An allocation of funding to purchase timber or cut it from new plantation land will have to be made.

There is no need to rush Rhinos from the trap area to the facility. It is often better to allow them to acclimatise to captivity in their native area. In the mean-time, while acclimatisation is going on, arrangements will be made to move the Rhino to Tabin. In most cases, the easiest way will be to construct a temporary road using hired skidders (tractors) from the nearest source. Possibly, Nuri helicopters will be needed for remote areas, but this is unlikely.

Lorries or boats will be hired as necessary for transportation.

It is strongly recommended that Mr Tony Parkinson, currently employed by the New York Zoological Society and working on a similar project in the Philippines, be asked to advise on capture and transportation.

7. Personnel

Assembling a team of sufficiently experienced and dedicated personnel is not likely to be easy. Experienced field workers lack crucial veterinary/biological knowledge, and vice versa. It is essential that professional advice is sought and, in particular, there must be adequate veterinary care from the time of capture. Given the relatively huge value of Rhino products, there is always a danger of deliberate "accidental deaths", especially by casual employees. There must be at least one trustworthy staff member present at all stages. Success can be better assured by offering moderate salaries with large bonuses for every live Rhino caught. The following scheme is suggested as a compromise to make use of local personnel where possible and also to be flexible with changing circumstances:

a) Field Team Leader

This person would form a key role in the early stages of the project.
Duties: leading capture team(s); gathering information from the public; supervising construction of traps; planning logisitics of all field work; (possibly) supervising construction of a temporary facility at Tabin; maintaining captured Rhinos before transportation to Tabin.
He may be retained indefinitely or transferred to the permanent facility later. He should personally visit the Tamaraw (Philippine wild cattle) capture project in Mindoro before commencing work in Sabah.

b) Capture Team

A minimum of 8, and preferably about 18 men, to be split into flexible teams. Team size and suitable personnel would be

refined with time.
Duties: locate Rhinos; build traps; maintain Rhinos in traps; move Rhinos to Tabin.

c) Vet/Rhino Expert

It is essential, if risks of death, injury or sickness are to be minimised, that someone experienced in looking after captive Rhinos be on standby to oversee care of the Rhino as soon as it is caught, and for a period of several weeks. This person would preferably be the Captive Facility Manager (see 4), below), but not necessarily.

d) Captive Facility Manager

This post should be filled by an experienced Rhino keeper, at least in the first year or two, until the facility is running smoothly.

e) Captive Facility Staff

Initially, about 8 staff would be taken from the capture group, and replaced or exchanged as appropriate. Personnel must be selected based on dedication to the work.

f) General comment on personnel

Foreign expertise will be required (probably from U.S. or European zoos) until the permanent Facility is running well; otherwise, the risk of deaths from lack of experience is likely to be high. Malaysian, preferably Sabahan, personnel should be selected according to quality, and paid adequately. Structure of staffing will have to be flexible. Apart from team leaders and other senior positions, personnel should be sought from rural parts of interior Sabah.

8) Access to Tabin, Visitors and Tourism

These aspects can be worked out at a later stage; there is no need to do so now. Except for those with useful specialist advice to contribute, visitors should be kept out of the project until there is a smoothly-operating permanent facility at Tabin.

9) Funding

See budget on attached sheet. Note that it is only a rough idea of funding required. The rate of capture is unpredictable. Unexpected problems may crop up in such an unusual project. Possibly, salaries will have to be increased to attract suitable personnel.

10) Miscellaneous Points

a) Relevance of the pre-existing plans for Rhino capture

If parties involved in pre-existing plans for captive breeding of Sabahan Rhinos are ignored, unnecessary bad feelings may be caused. Also, expert assistance may be required from some of those parties. Parties present at the Singapore meeting in October 1984 should be informed as soon as any concrete plans materialise.

b) Documentary Film

The project provides a rare opportunity for a documentary film. This might be biased to the historical/scientific side or towards promoting tourism in Sabah, or both. A professional film maker, preferably with wildlife experience should be hired to make periodic visits to the project areas.

c) Contacts for veterinary/biological advice

Conservation Coordinator, American Association of Zoo Parks and Aquariums, AAZPA Conservation Office, Minnesota Zoological Garden, Apple Valley, MN 55124, U.S.A.

William G Conway, General Director, New York Zoological Park, 185th Street & Southern Boulevard, Bronx, New York 10460, U.S.A.

Forest and Wildlife Conservation Branch, F.A.O., Viale delle Terme di Caracalla, 00100, Rome, Italy.

Tony Parkinson, White House, San Roque, San Jose, Mindoro Occidente, Philippines.

Dr. Ulysses Seal, Chairman, Captive Breeding Specialist Group, IUCN/SSC, V.A. Medical Center, 54th Street & 48th Avenue South, Minneapolis, MN 55417, U.S.A.

Dr. Roy Sirimanne, Veterinary Health Officer, Singapore Zoological Gardens, 80 Mandai Lake Road, Singapore 2572.

d) Other possible developments for Tabin Wildlife Reserve

In addition to captive breeding of Rhinos, two other developments which might be considered for Tabin include:

- Ranching Tembadau (wild cattle)

The Tembadau (scientific name Bos javanicus) is Sabah's native wild cattle species. The Bali Cattle is the Indonesian domesticated form of the same species. The Tembadau has potential for meat production because it is better adapted to local conditions than imported cattle breeds, can feed on a wider

range of food plants and produces meat more tender than that of Buffaloes.

see "Little-known Asian Animals with a Promising Economic Future", BOSTID Report No. 46. Available free of charge from: Office of International Affairs (JH-217D), National Research Council, 2101 Constitution Avenue, Washington, D.C. 20418, U.S.A.

- Organised Hunting

If properly controlled, hunting of deer and pigs might be permitted in specified parts of Tabin. If mineral licks are provided and increased food supply in the form of grassland for deer, the productivity of these animals could be increased to permit sustained-yield harvesting.

PROJECTED BUDGET FOR 3-YEAR PERIOD

		M$
Personnel salaries and expenses (recurrent)		
Field Team Leader (M$3000 per month)		108,000
Captive Facility Manager/Vet (M$5000 p.m.)		180,000
Capture Teams/Captive Facility staff (18 men at M$500 p.m.)		324,000
Bonuses for success		300,000
Temporary labour/rewards for information		120,000
Field expenses (food, medical etc.)		150,000
Travel costs		25,000
Consultancy Fees		30,000
	TOTAL	1,207,000
Field Equipment, supplies etc. (assume recurrent)		
3 longwheelbase vehicles (4-w.d.)		130,000
Vehicle maintenance		100,000
Camping equipment		10,000
Materials for traps, holding areas		200,000
Hire of tractors, lorries etc.		200,000
Radio-contact system		10,000
Hire of helicopters for aerial survey		100,000
	TOTAL	750,000
Permanent Facility (partially recurrent)		
Temporary facility for first Rhino		20,000
Permanent facility		300,000
Staff quarters		300,000
Upgrading access and access maintenance		50,000
Foodstuffs, medicines		50,000
Visitor facilities		100,000
	TOTAL	820,000
TOTAL BUDGET FOR FIRST 3 YEARS		M$ 2,900,000