



Yayasan Badak Indonesia or the Rhino Foundation of Indonesia (RFI) is a Non-Profit; Non-Governmental Organization dedicated to the conservation of the rhinos in Indonesia namely Javan rhinoceros (Rhinoceros sondaicus, Desmarest 1822) and Sumatran rhinoceros

**YABI** has been established and inaugurated on December 28th, 2006 based on Notary Act No. 34 and legalized by the Ministry of Law and Human Rights on March 20th, 2007.

(Dicerorhinus sumatrensis, Fischer 1814).

### **Editors:**

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Once again, we are very grateful to present this highlight of YABI Annual Report of 2011 completed with photo of activities photos. Thanks to our field staff that is now active to photographically document their activities.

Last year, Indonesian rhino conservationists has been very excited that the Government of Indonesia, represented by the Governor of Banten, officially launched the development of the Javan Rhino Study and Conservation Area or JRSCA in Ujung Kulon National Park, as we all know that JRSCA has been stated at the Indonesia Rhino Conservation Strategy and Action Plan 2007 – 2017 as one of programmes to save the Javan rhinoceros. A few months later land clearing for patrol route and fence installation had started to built but then it lead to controversies, unfair publication exploded in national media for more than a month, at the end the construction had to be halted, and now the continution of the development is a waiting for instructions of the Minister of Forestry.

Torgamba, who had suffered from chronic renal failure finnaly had passed away. Necropsy procedure had been performanced to determine the cause of death and to investigate illness that had been diagnosed so far. Even that it died, the death should generates benefits for science. Therefore, YABI supported by the Faculty of Veterinary Medicine of IPB, Taman Safari Indonesia, Yayasan Rahmat and PHKA took steps to achieved this noble purposes.

The biggest challenge today is to answer the following questions: how many individual and populations of Javan and Sumatran rhinos in the wild, what is its distribution pattern, also its age and sex distribution. To answer this question, YABI with support of IRF in cooperation with the Eijkman Insitute for Molecular Biology, developed a program "Non Invasive Genetics Study for Javan and Sumatran Rhino within Indonesia".

The Rhino Protection Units remain as back bone in saving not only the rhinos in BBS, Way Kambas, and Ujung Kulon but also its habitat. Their activities remain pivotal in protecting the rhinos and its habitat among others in its involvement to joint activities with Park Authorities and Local Police to fight against encroachers and poachers within the national park. Hence, up-grading skills of the RPU through trainings is very important.

In order to continue its rhino conservation activities YABI appreciate very much the continued main support of PHKA, National Park Authorities, and funding support from IRF and WWF as well, technical support from Faculty of Veterinary Medicine of IPB, Eijkman Institute, and Aaranyak Foundation - India. YABI also appreciates smaller donations from private supporters such Asian Rhino Programs, Lampung Farmers Community, as well as from visitors to the SRS

Let us hope the best for a speedy progress of Javan and Sumatran rhino conservation programs, and thanks to you all for your continued support.

With best regards,

Widodo S. Ramono.



# NON INVASIVE GENETICS STUDY FORJAVANAND SUMATRAN RHINO WITHIN INDONESIA

The biggest challenge today is to answer the following questions: how many individual and populations of Javan and Sumatran rhinos in the wild, what is its distribution pattern, also what is its age and sex distribution. With the advent of DNA technologies, molecular genetics tools find wide range of applications in the field of wildlife. In the past decade genetic approaches to answer ecological questions have become more efficient, powerful and flexible, and thus more widespread. The very fact that DNA can be obtained from trace amounts of different biological materials (e.g., blood, muscle, skin, bone, hair, feces samples, urine, shed skin and feathers from birds etc.) and further amplified with the use of Polymerase Chain Reaction (PCR) to make multiple copies of DNA fragment of interest to a detectable amount, makes this technology most versatile in the field of genetic research as well as in forensics. The high resolving power of DNA technologies finds application in different branches of wildlife biology including taxonomy, genetic diversity, reproductive and behavioural biology, estimating population size, migration rates, past bottlenecks, kinship structure, or tracking of individual animals. Combined with Geographical Information System (GIS), molecular genetics tools can be very robust and can be exploited for studying species distribution, habitat preferences etc.

Yayasan Badak Indonesia (YABI) in cooperation with the Eijkman Insitute for Molecular Biology, developed a program "Non Invasive Genetics Study for Javan and Sumatran Rhino within Indonesia". YABI supported by the International Rhino Foundation and Aaranyak Foundation. The major objective of this study are to build up a reference genetic database for critically endangered Javan and Sumatran Rhino in Indonesia and to standardize DNA based techniques for the identification of species, individuals and gender from various samples of Javan and Suma-

The samples of non-invasive genetic study of the Javan and Sumatran rhinoceros are feces, urine, hair and the remains of rhino bone samples have collected from the Way Kambas, Bukit Barisan Selatan and Ujung Kulon National Park, the DNA typing of collected samples will be analyzed in the Laboratory of Eijkman Institute. The Rhino Protection Units play a pivotal role to collect sample from Way Kambas and Bukit Barisan Selatan National Park, meanwhile ROAM (Rhino Observation And Monitoring) team for Ujung Kulon National Park. Sampling method in the field (BBS and UK) using a survey method called Captured Mark Recaptured (CMR) which is technically supported by Mr. Arnaud R. Lyet PhD from WWF US, meanwhile in Way Kambas National Park the RPUs using Transect Line Method that usually apllied by the RPUs.

### **Project activity:**

### Phase I - Training on sample collection

The training was held in SRS, Way Kambas National Park, on June 23, 2011. A total of 21 participants of RPUs of Way Kambas, Bukit Barisan Selatan, and Ujung Kulon National Park, also SRS staff.

Training was opened by the YABI Executive Director, Mr. Widodo S. Ramono, the material of "Wildlife Conservation Genetics" was presented by Prof. dr. Herawati Sudoyo, MS, Ph.D., the field expert of molecular biology from the Eijkman Institute, and then the presentation of "Feces Sampling Procedures" by Tri Cita Hutama, S.Si from the Eijkman Institute.

### Phase 2 - Collecting reference samples from both species (Javan and Sumatran Rhino).

Reference samples for the Javan and Sumatran rhinos were collected in July-August 2011, comprises samples of blood, hair, feces, the remains of bones, teeth and horns. Samples were collected from SRS, UKNP, RPU's basecamp, and Faculty of Veterinary Medicine of Bogor Agriculture Institute.

From all of the collected reference samples we chose four of blood and feces from the same individual rhino.

Phase 3 – Samples collection in the field by RPUs in Way Kambas (5 teams) and Bukit Barisan Selatan National Park (5 teams) and ROAM (3 teams) in Ujung Kulon National Park.

Training on CMR method, samples collection, and basic patrol was carried out on 21 - 24 November 2011 in BBSNP office.

The first field survey using CMR method in BBS was held on 27 November – 7 December 2011, second field survey on 18 – 28 December 2011, the third on 9 - 19 January 2012, and the fourth on 28 January - 7 February 2012. Total samples that had been collected by the RPUs were 17 samples of feces and 1 sample of urine (dried).

Regular patrol and surveys of RPU of Way Kambas National Park where samples collection is conducted in random (by chances), had collected 17 samples of feces, 4 samples of urine (all dried and moldy), and a sample of hair of Sumatran rhino.

■ The field survey using CMR method to collect samples in UK was carried out by ROAM team on 18 – 29 December 2011, the second was on 6 - 13 January 2012, and the third was on 1 - 7 February 2012. Total samples had been collected by the ROAM teams were twenty two feces, a few blood stain in leaves and one urine sample.

Phase 4 - DNA typing was performed in The Eijkman Institute for Molecular Biology

■ Capacity building: In Collaboration between Eijkman Institute and Aaranyak, India, for the genetic study of Javan and Sumatran Rhino, during 5<sup>th</sup> - 9<sup>th</sup> December 2011, Mr. Udayan Borthakur, M.Sc., the Head of Wildlife Genetics Programme, Aaranyak, had trained two of the Eijkman Institute research assistants and one researcher from YABI. The training had been focused on DNA typing using microsatellite markers for Javan and Sumatran Rhino.

Preliminary study of Javan and Sumatran Rhino using non-invasive sampling

The DNA of 4 reference samples from Sumatran Rhino Sanctuary (SRS) was extracted, and followed by genotyping of 24 microsatellite loci using labeled primers that specific for Sumatran and Indian Rhino. 18 of 24 microsatellite loci have showed good result, further we need to define 12 of the 18 microsatellite loci for Javan and Sumatran Rhino population study.

The sex determination study will perform using SRY labeled primers and zinc finger gene (ZFX/ZFY).

The Eijkman Institute has received 56 feces samples, with the detail as follows:

- 22 Samples from Ujung Kulon National Park
- 17 Samples from Way Kambas National
- 17 Samples from Bukit Barisan Selatan National Park

Currently, Eijkman Institute has extracted 4 feces samples from Ujung Kulon National Park.

Phase 5 - Report and Publication.







Torgamba is the first Sumatran rhino that inhabited the Sumatran Rhino Sanctuary (SRS), Way Kambas National Park, Lampung. He was captured in Riau forest in November 1985 and had been trans-located to Howletts and Port Lympne Zoo, UK in April 1986. In 1998, Torgamba was transferred back to Indonesia and placed at SRS.

Since 2002 Torgamba has been diagnosed suffering Oligospermia where the number of spermatozoa is very low and much abnomartility of spermatozoa were discovered under microscopic examination. In 2005 he was diagnosed of also suffering from chronic renal failure. After that, Torgamba has been experiencing up and down of his health condition.

In January 2011 Torgamba suffered more serious of his health problem. He lost his appetite and very hard to feed him by hand. Physically looked normal but weakness expressed out after a long walk. Day after day Torgamba were getting worse with loss his appetite and body weight. Body temperature increased to 37,0 - 37,70C. Blood test result showed high level of ureum (38) and creatinin (7.1).

As to the treatment, Torgamba was given with IV fluids solution (Sodium chloride, lactate ringer, amino acids, Vitamin, ATP, AB certiofur and Vitamin C) for almost every day. As consequences, Torgamba kept monitored for 24 hours. A vet and two keepers stand by around the clock to monitor

Dr. Benn Bryant, Senior Veterinarian from Toranga Conservation Society of Australia (TCSA), came to visit and assist SRS veterinarian to manage Torgamba. Dr. Benn visited SRS from 14 – 17 January 2011.

### Dr. Benn's report:

From January to March 2011 Torgamba's condition kept droping,

even so the veterinarian and keepers gave the best way to bring

I – 16th April 2011 Torgamba's condition still dropped but the

SRS Vet did not treat to bring Torgamba back as they did

before. Torgamba spent almost a full day in wallow and just

2-3 hours in stall for feeding. The body weight significantly

droped almost 100 kg. The skin was changed to smelly and

17 – 23rd April 2011 Torgamba was getting worse, weak-

ness and illness. Blood sample test showed bad anemia

and extreme azotemia (ureum 98 and creatinin 7.2).

leaves and 6-15 kg of fruits and 7-23 liter of water.

April 23rd was the day Torgamba began more weak,

although still able to eat as usual (leaves 8 kg, 50-10

kg of fruit and drink 7-25 liter). It looks so very

hard to get out of the floor, hardly to step and

walk (paralyzed), legs trembling, peripheral blood

vessels (veins) are all collapse and always moaning. Torgamba was falling down on the floor several

times until finally unable to get up again. Finally

at the night of the 23<sup>rd</sup> April 2011 his condition

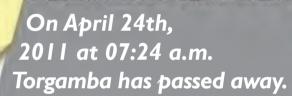
looked very bad and unable to get up just

lying on the floor.

Torgamba back to an acceptable level of health.

soft.

Torgamba has chronic renal failure. This is a condition which is progressive (i.e. slowly gets worse) until the patient dies. The failing kidney can be supported with fluid therapy and other treatments but there comes a time in the course of the disease when these supportive treatments are no longer effective. Over the last 3 years, as his kidney function has deteriorated, Torgamba has had numerous episodes of poor spirit and loss of appetite (i.e. 'de-compensation'). On each of these occasions the SRS teams have managed to bring Torgamba back to an acceptable level of health ('i.e. compensation') by intensive fluid therapy and other supportive treatments. His most recent episode began 2 weeks ago with loss of spirit and poor appetite. Intensive fluid and supportive therapy was started. To date Torgamba has not responded to treatment Additionally his blood Indicators of kidney failure remain the highest that they have been during the course of his illness. Although it is difficult to know for sure, this poor response to treatment strongly suggest that Torgamba's kidney function is now very poor and that he may die soon. It is now a matter of urgency that we prepare for an effective necropsy examination and attempts to rescue gametes (i.e. sperm) should



After the issuance of transport permit (SAT-DN) from BKSDA Bandar Lampung, Torgamba cadaver Veterinary Medicine of Bogor Agriculture University (IPB) for necropsy examinations.

As soon as the cadaver arrived at the Laboratory immediate necropsy examination was implemented by necropsy team lead by Prof. Bambang Pontjo from IPB. Necropsy examination completely accomplished at 05:00

See next page: Report of Pathology Examination of Torgamba Cadaver by the Pathology Section of Department of Clinic, Laboratory, and Pathology, Faculty of Veterinary Medicine of IPB.



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### **REPORT OF** PATHOLOGICAL EXAMINATION

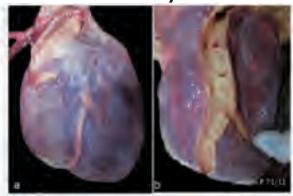
### **Respiratory Tract:**





- a. Part of the pleura in the caudo-ventral was thickening with gloomy aspect (chronic pleuritis),
- b. Larynx reddish / hyperemia,
- c. There's mild catarrhal exudates in the lumen of trachea.
- d. The lungs are colored red-black stripes around the lobe of the lung especially in the area of cranial lobe. In some parts of the lobe there was an accumulation of air shaped like a balloon. In the field of incision colored striped out blood.

### **Circulatory Tract:**



- a. Heart. The shape was rounded with blunt apex . Epicardium colored red striped with white dots on some section. Fat in the coronary sulcus have undergone serous atrophy. Myocardium collored pale red with a somewhat gloomy aspect. Left ventricle of the heart was thickening (hypertrophy) and a blood clot and also the "chicken fat clot" had found in ventricular cavity. The second valve of the Heart of the left ventricle was thickening with bleak and rough aspect. The wall of right ventricle was thinning along with expansion of the lumen that filled with blood clots and "chicken fat clot".
- b. Blood vessels. There's white bleak and harsh plaque on the wall of the aorta and pulmonary

No of Protocol:	P/71/11	National : -		Sex : Male
Species	Sumatran rhino	Age	: 32 years	Color: Brown, Black
	TORGAMBA			
Date of	April, 24 2011	Anamnese (Story):		
Necropsy		Already	suffered a long illr	ness, senility, renal failure,
Owner	SRS Way Kambas	aspermia, creatinine and ureum levels on the last condition was high, before dying several times a fall.		
Address	Lampung			
		Animal I	looks thin.	

# Cornea

looks cloudy and whitish.

## **All** mucous

are pale or anemic.



### the abdominal cavity



Dilute of approximately 20 liters of blood-red liquid was found in the abdominal cavity.

patoipb P 71/1

### **Subcutaneous fat**



Subcutaneous fat is very small in amount, shoulder and hip bones protruding.

### The third molar



The third molar left and right on mandible were missing. Tartar discovered in almost all teeth.

### Wart



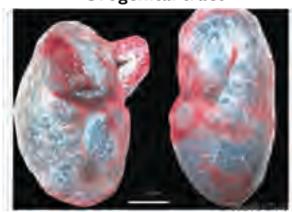


Wart with the corn of pill size in corona interdigit of the left front foot.

ioure: Report on Necropsy Examination of Torgamba by Pathology Unit, Department of Clinic, Reproduction and Pathology Faculty of Veterinary Medicine of Bogor Agriculture University Protocol No.: P/71/11 - Date on 24 April 2011

### REPORT OF PATHOLOGICAL EXAMINATION

### **Urogenital** tract



Size and shape were different between left and right kidney (left kidney bigger than right one). Incised surface of kidney in the cortex there are small holes sizing approximately 3-5 mm, red with brown spots. There's fibrous formation in region cortex and medulla.

Penis colored in pale pink and microscopic examination on the testicle showed no sperm at all.

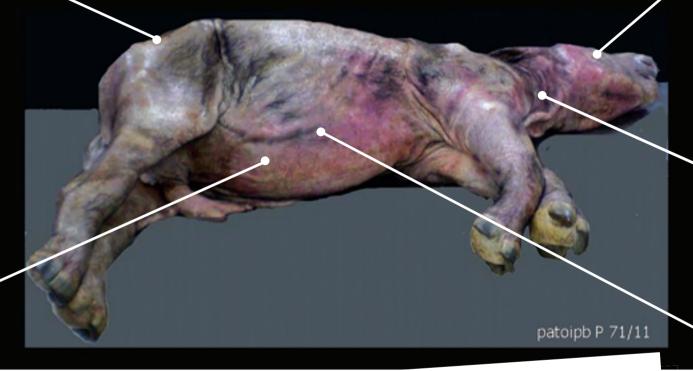
### **Digestive tract:**



- a. Esophageal erosion.
- b. Stomach loaded with food forage with hard consistency. Stomach mucous in some part colored red and discovered erosion. There was exudate catarrhal in region pylorus of stomach.
- c. Duodenal mucous was thickening with wet shiny aspect and glassy. There was exudates catarrhal mixed with blood colored black in duodenum. Ileum and jejunum contains exudates catarrhal and intestinal contents colored grey. Colon had ruptured and bleeding with colon contents hardened.
- d. Nodules sizing 3 5 mm found in the mesentery of intestinal colored white and hardy contents.
- e. Pancreas colored uniformly red and the size was very small.
   f. Heart colored blackish red and its surface having fibrosis white. There was also a white hard nod ules sizing about I cm. Field slice colored black and blood out.

### **CONCLUSION/DIAGNOSE:**

Torgamba suffering from chronic kidney failure that resulted in complications in heart, lungs and brain. The cause death (COD) mainly due to the rupture of the colon that causes bleeding in the abdominal cavity. Torgamba also experiencing senility (aging).



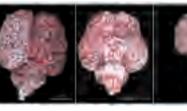
## SHRIMPS FARMER COMMUNITY OF LABUAN MARINGGAI COMMITTED TO DONATE FOR POST MORTEM EXAMINATION OFTORGAMBA

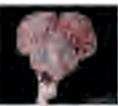


Shrimps Farmer Community of Labuan Maringgai Lampung, PT. Indokom Samudra Persada, Marks and Spencer, and Young's Seafood Limited committed to donate of US\$ 9,379 for Torgamba necropsy. Mrs. Rosida Idriss from UK based Seafood Consultant said that with this donation hopefully Torgamba will provide benefits to science.

SRS will have the Sumatran rhino skeleton that will be displayed in the Information Center. Thank you Torgamba!.

### **Brain**





Cerebral undergone vasa injeksio (dilation of blood vessels), the cerebellum has also dilation of blood vessel (aneurysm).

### Organ hormone system



- a. Thyroid. There are two dark red lobes of the Thyroid. The size of the Left lobe was larger with a harder consistency.
- b. There were colored light brown of masses clumps in the cortex region of Adrenal gland with a diameter of about I cm.

### Limforeticular:



- a. Spleen. Spleen capsules a little strain, on the surface of the spleen found the existence of a white nodule diameter of about 2 cm. On the surface of the spleen also found white colored patches. Spleen incision was dried.
- b. Prefemoralis lymph node is red, hard and swollen and when it sliced the blood and clearly transudates run out. Supporting tissue surrounding having serous atrophy (melt down).



Balai Konservasi Sumber Daya Alam (BKSDA) Lampung confiscated 85 pieces of tiger skins and 8 cigarette pipe made of elephant tusks and whale fish bones. Those parts of protected rare animal were seized from Syahrudin (41 years old) and Sadar (51 years old), both are residents of Kotaagung, Tanggamus. Tanggamus is the district where the Bukit Barisan Selatan National Park is located as home of rare and endangered mammals such as sumatran rhinoceros, tigers, and elephant.

The confiscation operation performed by a joint forces between BKSDA Lampung especially the Forest Rangers, the RPU, and the ILEU team of BBSNP. Best credit is for members of RPU, Saptono, Hendra Wijaya, Uga Yogaswara, Mad Nurzen, Zulkifli and Ujang Suryadi from ILEU team.

Began with intelligence operations on 17 February through to 2 March 2011 that the case status turn into A1, confirming the case, arrestment took place on March 3rd, 2011.

Chronology of Arrestment:

March 3, 2011, 08.00 a.m Team left the Pos Kotaagung, 10.45 am arrived at BKSDA II Tanjung Karang Office performing coordination with the Forest Rangers to handle the case, joint with the Forest Rangers to set up the arrestment strategy and then divised a join team which then divided into mobile 3 groups to arrest the suspects. At 16.00 p.m the team received intelligence report that Target Operation (TO) with the evidences were moving out using a motorcycle to the designated location for transaction.

## IVORYTRADE AND TIGER SKINS IN BANDAR LAMPUNG FOILED!



### **Team Operation:**

Wearing non uniform cloth one team was waiting for TO near around the place and the other team was staying outside in the car waiting for signals. Meanwhile, undercover agent who played a role as a buyer waiting for TO inside the place.

At 19.00 p.m. teams were reported that TO was moving nearly the designated place and not for long TO came inside the place and then met the undercover agent for transaction. A few minutes later when the condition considered very conducive, join team moved to ambush and successfully arrest TO without a fight. On the investigation of suspects the team found:

- 6 pieces of cigarettes pipe made of elephant's tusk with the size of  $13 \times 20$  cm of each and 2 pieces made of whale's fish bones with the size of  $10 \times 20$  cm.
- 85 pieces of tiger skin appear to be sumatran tiger skin in variety of sizes, they were 9 pieces with each the size of  $13 \times 16$  cm, 6 pieces with each the size of  $18 \times 15$  cm, and 70 pieces with each the size of  $5 \times 7.5$  cm.

Suspects and evidences were brought to BKSDA II Tanjung Karang office for preliminary investigation. The next day both suspects and evidences were brought to Police Resort of Lampung. According to the Act No. 5 of 1990 concerning Concervation of Living Resources and Their Ecosystem article 21 paragraph (2), suspects will be sentenced to 5 years in prison and fines of at least 100 million rupiahs.

The Intelligence and Law Enforcement Unit (ILEU) and Rhino Protection Units (RPU) of Yayasan Badak Indonesia in collaboration with Wildlife Crime Unit (WCU) WCS IP and BKSDA Lampung have seized 45 pieces of ivory cigarette pipe. Those pairs were confiscated from two illegal traders, Sapir Yamin bin Zubairi (37 years old) and Ramondus Sapto Susilo bin Hardi Marjono (47 years old), both from Bandar Lampung.

According to the ILEU Report, the traders had often informing informan about elephant tusks that ready to sold but the goods has never been sought. On 30 January 2011 they had offering again goods in form of cigarette pipe made of elephant tusk with vary in size, number, and price. On 31 january 2011, the ILEU and RPU coordinated with the WCU WCS IP and informan to performed an investigation. At 12:00 local time the team met the trader to saw the goods at took a photograph. The traders told that the goods from east and west Lampung.



# TRADER BUST WITH SUMATRAN ELEPHANTTUSKS AT BANDAR LAMPUNG

The team coordinated with BKSDA Lampung to trade by posing as a buyer, but the transaction was not easy as location and time of transaction often changes. The traders seemed to be very careful and put a spy around the location. So they need more personnels to be involved and in turn need extra cost for this operation.

At the time of arrest, the team had difficulty due to resistance of the traders so they had to open fire a few times for a warning. The traders almost got away but then they got arrested along with the 45 pieces of cigarette pipe of ivory. Finally, the two suspects and their evidences handed over to Lampung Police (Polda Lampung).





### SITEVISIT OF JRSCA BYTHE JOURNALISTS

Frenetic controversion of the Javan Study and Conservation Area or JRSCA development in several national media has attracted the attention of some journalists from various news agencies and television media to look directly at the construction site of the JRSCA which is located within the Ujung Kulon National Park (UKNP). The site visit conducted on 12 and 13 November 2011. It was coordinated by the FOKSI (Forum Konservasi Satwa Liar) and facilitated by Dadan D. Subrata from the Yayasan Badak Indonesia. The journalists enlists in the visit were:

- I. Sulhan Syafi'i (FOKSI)
- 2. Adi Marsiela (Suara Pembaharuan)
- 3. Anwar Siswadi (Koran Tempo)
- 4. Kiki Kurnia (Galamedia)
- 5. Deni Yudiawan (Pikiran Rakyat)
- 6. Matdon (Voice of Bandung)
- 7. Deffan Purnama (Koran Tempo)
- 3. Titik Kartitiani (Flona)
- . Susanna Sunarno (FOKSI)
- 10. Cornelius Helmy (Kompas)
- 12. Diana Dwika (Trans7)
- 13. Theresia Sufa (The Jakarta Post)
- 4. Yudi (Seputar Indonesia)
- Diki Sudrajat (Metropolis Bogor/Jawa Pos Group)

Irman Sukmana (Kabar Priangan)

- 16. Ruby Madjid (RCTI)
- 17. Berto (FOKSI)
- 18. Citra (FOKSI)
- 19. Berto (Foksi)

First day of visit, the journalists met the Director of Ujung Kulon National Park, Mr. Agus Priambudi. The meeting colorized by discussion about the development of JRSCA and Javan rhino conservation in UKNP in general.

The next day, the group visited JRSCA site where habitat management and patrol route are located. Discussion occured along the site.

Fairly news regarding the development of JRSCA and current status of the Javan rhino, as result of the visit had been published by several newspapers, they were:

- 1. KOMPAS dated on 15 November 2011 page 12 (LANGKAN) titled "JRSCA designed for wildlife protection".
- 2. Daily Pikiran Rakyat dated on 17,18, 19 (serial) November 2011 page I continued to page 12 col. 4 titled "Javan rhino, a step to extinct (I)" and subheading "Flashy Komodo, Javan rhino been forgotten".
- 3. Live television footage Trans7 at 17.00 pm for duration 60 minutes.
- TEMPO dated on 24 November 2011 page A12 and 8.
   A13 (Science & Technology) titled "Electric fence for

- Javan rhino" and "Controversion behind electric fence".
- 5. KOMPAS dated on 4 Desember 2011 page 3 (Nusantara) titled "Javan rhino fed me up"
- Suara Pembaruan dated on 3 January 2012 titled "Spying the fate of rhino "(1) "Pressured by encroachers and forest degradation"
- 7. Galamedia (published in Bandung) dated on 20 November 2012 page 11 titled "Save single horn rhino"
- . Galamedia dated on 3 December 2012 page 16 titled "Ujung Kulon become more rare"





## DRINKING WATER SUPPLY FORWILDLIFE OF WAY KAMBAS NATIONAL PARK

Way Kambas National Park (WKNP) falls under wet climate region hence, with dry season between July to October that is sometimes very dry. According to records, the average annual rainfall is between 2159 mm and 2259 mm. The average annual temperature is 26.1 °C. Schmid and Ferguson (1951) stated that WKNP included in the classification of type B climate with annual rainfall between 2500-3000 mm.

According a member of the RPU WKNP, Rosdi Hartono, if raining occured during the rainy season, almost 75% of the area will be submerged in water until it reaches knee deep of adults. Conversely, in case the end of dry season it is almost 90% of the region WKNP is really dry.

As happened during this dry season, the park's forest was very dry, existing water sources especially for wild animals in the region WKNP is only to rivers that have narrowed as it dries but leaving a little water mixed with mud.

To overcome the shortage of water for drinking needs of animals reside around the area of the national park, Rhino Protection Units (RPU) of Yayasan Badak Indonesia in collaboration with the National Park's office, WCS and PKHS, had been implementing drinking water supply activities for animals on September 2011, which is carried along the forests path of Plang Ijo – Way Kanan.

Cooperation of the above have been successfully installed 50 drinking water baths at 13 point locations left and right along the forests path of Plang Ijo – Way Kanan. The lack of a budget becomes a constraint to the activity so the drinking water supply only provided for this location. According to Rosdi, in 1997 RPU had also performed animal drinking water supply activities even to the Rawa Gajah areas and the activities carried out jointly with WKNP nature lovers.







FROM WYF GMPO
REGIONAL ENFORGEMENT HANOLY IETNAM

Yayasan Badak Indonesia has been invited by WWF Vietnam to attend the WWF GMPO Regional Enforcement workshop in Hanoi Vietnam on 15 – 17 April 2011. This workshop has been attended by mostly WWF representations from several countries such as Vietnam, Laos, Cambodia, Malaysia, Indonesia and China. The workshop aimed to formulate enforcement strategy against crimes in forestry in some countries particularly Asia, based on their landscapes. In this workshop, YABI has been represented by Mr. Syamsudin from RPU Ujung Kulon National Park and Mr. Maman Suherman from RPU Bukit Barisan Selatan National Park.

First day of the meeting, each invitees presented enforcement strategy in their country based on landscapes. After that, the workshop had discussions to formulate good enforcement tactics to implement in working areas of each participants. The formulation of enforcement tactics as follows:

- Reconnaissance patrol: patrol to gather more information about threats.
- 2. Prescense patrol: the opportunity to act violations can be minimized with this patrol.
- 3. Intellegence patrols: to collect information from all sources that might be reliable and acurates.
- Road Block/ Check point: patrol to check location.
- Permanent entry: patrol to guard the doorway of offences.
  Strike force action/ mobile terms: mobile patrol.
  Enforcement patrols: patrol for enforcement.

- Observation point: patrols at observation points.
- Temporary base: patrol using temporary base.
- 10. Sweeps: patrol to sweep the crime scenes.
- 12. Ambush: ambush suspect.

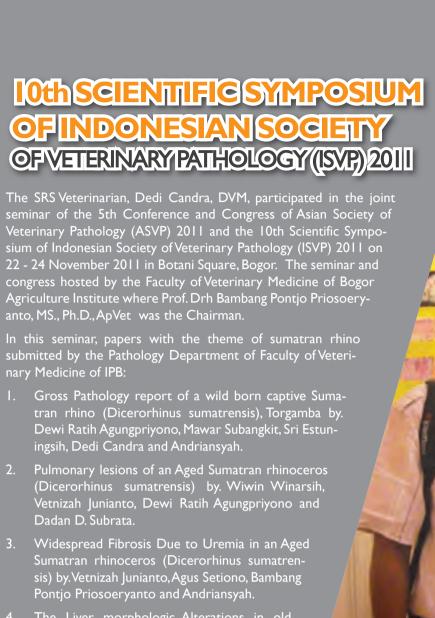
The second day of the meeting was to discuss about Addressing Obstacles, that it was how to overcome enforcement problems found in each regions of participant. In general, the problems that occur in every country is its human resources in dealing with violations or illegal activities and a lack of political support for law enforcement, especially in the forestry.

The last day of the workshop the participants presented the development of standards / indicators in effective law enforcement strategy, reducing the threat, ranger performance monitoring and the needs of forestry law enforcer in each landscape region.

Finally, three important points resulted from this three days meeting, they are:

- Law enforcement should be supported by good intelligence,
- Patrolling on foot is good for standard protection,
- 3. Enhance patrol for protection in prone areas.

(As reported by Syamsudin and Maman Suhardiman).



4. The Liver morphologic Alterations in old Sumatran rhinoceros (Dicerorhinus sumatrensis) with polycystic kidneys by. Herno-moadi Huminto, Bambang Pontjo Prioso-eryanto, Vetnizah Junianto and Dedi

5. Metastatic calcification on digestive system of Sumatran rhino (Dicerorhinus sumatrensis) "Torgamba" with Polycystic kidney Disease by. Eva Herlina, Hernomoadi Huminto, E. Handharyani and Widodo Ramono

6. Cardiovascular lesions in Aging Sumatran rhinoceros (Dicerorhinus sumatrensis) "Torgamba" by. Sri Estuningsih, Mawar Subangkit, Dewi Ratih Agungpriyono and Andriansyah

7. Polycystic Kidneys syndrome in (Dicerorhinus sumatrensis) "Torgamba" by Mawar Subangkit, Sri Estuningsih, Wiwin Winarsih and Dedi Candra.



MATERIAL SANDAN



On March 11 12,2011, introduction and pairing
program Ratu with Andalas at the breeding
central area was successful by mating occured at
this time. Andalas was mounting 10 times with two

**GOOD NEWS** 

this time. Andalas was mounting 10 times with two full intromissions where the last intromission is the best one early in the morning. A day post breeding Ratu ovulation has been confirmed. Ratu, a female Sumatran rhino from Way Kambas National Park has been pregnant again.

DR. Dedi Candra and SRS team found signs of a good pregnancy in early of April 2011, eventhough it was not easy to see vesicles embryo or foetus using an ultrasound. DR. Dedi and Ratu keepers were working very closely on regular ultrasound examination, monitoring and daily care. Ratu has been given "Regumate" supplement so the pregnancy became more stronger. She has been pregnant for the third time since the focus breeding programs with Andalas, and this was the first time in 2011.

On December 2011, Ratu has been 9 months and 19 days of pregnancy and the signs of the pregnancy were very good and clear. DR. Dedi has been regularly performed an ultrasound examination on Ratu.

It's been estimated that Ratu would give birth on June 2012.

TRAINING ON MANAGEMENT INFORMATION SYSTEM (MIST) IN MY COPENC RESORT, IPOH PERAK, MALAYSIA.

Yayasan Badak Indonesia has been invited by WWF Malaysia to attend the training on Management Information System or MIST that was held in My Gopeng Resort, Ipoh Perak Malaysia on 10 – 15 January 2011. This training organized by WWF Tigers Alive Incentive and has been attended by WWF Malaysia, WWF Thailand, WWF Pekan Baru Indonesia, Traffic Malaysia, BKSDA Pekan Baru, Ujung Kulon National Park (UKNP), Rangers of Taman Negeri Perak Malaysia, and Yayasan Badak Indonesia (YABI). YABI has been represented by Moch. Syamsudin and Yusef Hardiana, both are member of Rhino Protection Unit of Ujung Kulon National Park, and the UKNP Office represented by Dodi Sumardi and Indra Febriana.

From this 5 days training in Malaysia, it could be taken some benefits of MIST application such as:

- I. Increasing commitment of Forest Rangers and RPUs in patrolling and monitoring activities within the national park,
- d. Identified and and monitored areas,
- 3. MIST application as a right tool to develop a strategy of park management especially law enforcement,
- Good tool for Resort Base Management in the national park.

As follow up of the training where MIST application will be apllied in UKNP, there are requirements that should be addressed as follows:

- . Development of a database of UKNP. This database is developed using MIST application and covers human activities within the national park legally and illegally, biodiversity, etc.,
- 2. MIST application training for field officer (Resort and Section),
- 3. Procurement supporting equipments such as 3 units of computer, GPS, 13 units of camera for each Resort, and also personnel use.

The national park that had already applied the MIST application for its management, for example, is the Hua Ka Keng National Park in Thailand, where patrol and tiger monitoring data are well documented through this application.

(As reported by Dodi Sumardi, Indra Febriana, Moch. Syamsudin, and Yusef Herdiana).





### **Financial Position**

Assets	
Current Assets	1.760.148.977
Non Current Assets	1.165.220.282
Total Assets :	2.925.369.259 *
Liabilities	50.000.000
Net Assets	2.875.369.259
Total Liabilities and Net Assets :	2.925.369.259 *

### Statement of Activities

Contribution				
Grants and Contribution	9.248.449.593			
Total Revenue	9.248.449.593			
Cost Incurred				
Programs				
Head Quarter	970.687.096			
RPU BBS NP	2.195.409.382			
ILEU BBS NP	613.069.156			
RPU WK NP	1.421.092.051			
RPU UK NP	1.042.787.872			
SRS WK NP	1.969.865.594			
Special Activities	1.359.807.305			
Depreciation	536.177.524			
Total Costs Incurred :	10.108.895.980			

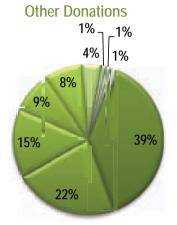
Other Income (Expenses)		
Bank Interest	(12.895.405)	
Earnings of exchange rate	(11.007.878)	
Bank Costs	1.679.588	
Tax from Interest	2.557.972	
Others Costs	32.495.500	
Total Other Income (Expenses) :	12.829.777	
Excess Of Contribution Over Costs Incurred :	(873.276.164)	,
Net Assets At The Beginning Of The Year	3.748.645.423	
Net Assets At The End Of The Year:	2.875.369.259	*

### Budget Plan 2012

Description	Budget	Available	Unavailable
HQ/Secretariat	\$115,477	\$97,957	\$17,521
RPU BBS NP	\$257,071	\$222,737	\$34,334
ILEU BBS NP	\$65,965	\$52,971	\$12,993
RPU WK NP	\$172,039	\$135,984	\$36,055
RPU UK NP	\$123,365	\$99,539	\$23,825
SRS WK NP	\$254,960	\$187,739	\$67,221
INFOCOM	\$10,214	\$0	\$10,214
Research & Education	\$20,222	\$0	\$20,222
TOTAL	\$1,019,313	\$796,928	\$222,385
TOTAL	Rp9.173.814	Rp7.172.348	Rp2.001.467
currency 1 US\$ = Rp. 9.000,-			Rp. X 1.000

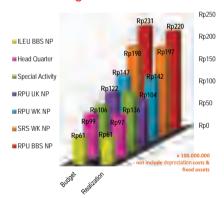
### **Grants & Contribution**

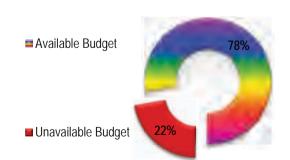






### **Budget Realization**





### Junaedi, Chairul dan Subyakto

Izin Usaha: Keputusan Menteri Kepangan KI No. 357/KM.1/2011



LAPORAN AUDITOR INDEPENDEN /
INDEPENDENT AUDITORS' REPORT
Ref No.: 14A.AR/2012
Kepada / To:
Pengurus/Management of
Yayasan Badak Indonesia/
Rhino Foundation of Indonesia

Kami telah mengaudit laporan posisi keuangan Yayasan Badak Indonesia/Rhino Foundation of Indonesia per 31 Desember 2011, laporan aktivitas dan laporan arus Kasuntuk tahun yang berakhir pada tanggal tersebut. Laporan keuangan adalah tanggung jawab Manajemen Yayasan. Tanggung jawab kami terletak pada pernyataan pendapat atas laporan keuangan berdasarkan audit kami. Laporan keuangan Yayasan Badak Indonesia/Rhino Foundation of Indonesia tanggal 31 Desember 2010 diaudit oleh auditor independen lain yang laporannya bertanggal 28 Januari 2011 berisi pendapat wajar tanpa pengecualian atas laporan keuangan tersebut.

Kami melaksanakan audit berdasarkan standar auditing yang ditetapkan Institut Akuntan Publik Indonesia. Standar tersebut mengharuskan kami merencanakan dan melaksanakan audit agar memperoleh keyakinan memadai bahwa laporan keuangan bebas dari salah saji material. Suatu audit meliputi pemeriksaan, atas dasar pengujian, bukti-bukti yang mendukung jumlah-jumlah dan pengungkapan dalam laporan keuangan. Audit juga meliputi penilaian atas standar akuntansi yang digunakan dan estimasi signifikan yang dibuat oleh manajemen, serta penilaian terhadap penyajian laporan keuangan secara keseluruhan. Kami yakin bahwa audit kami memberikan dasar memadai untuk menyatakan pendapat.

Menurut pendapat kami, laporan keuangan yang kami sebut di atas, menyajikan secara wajar dalam semua hal yang material, posisi keuangan Yayasan Badak Indonesia/Rhino Foundation of Indonesia per tanggal 31 Desember 2011, serta kinerja keuangan dan arus kas untuk tahun yang berakhir pada tanggal tersebut sesual dengan sesual dengan standar akuntansi keuangan di Indonesia.

We have audited the accompanying Statement of Financial Position of Yayasan Badak Indonesia/Rhino Foundation of Indonesia as at December 31, 2011, statements of activities and statement of cash flow for the year then ended. These financial statement are the responsibility of the Foundation's Management. Our responsibility is to express an opinion on these financial statements based on our audit. The financial statements of Yayasan Badak Indonesia/Rhino Foundation of Indonesia as of December 31, 2010 have been audited by other independent auditor whose report dated on January 28, 2011 expressed an unqualified opinion on these financial statements.

We conducted our audits in accordance with auditing standards established by the Indonesian Institute of Public Accountants. Those standards require that we plan and perform the audit to obtain reasonable assurance that the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the standard accounting used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial stalements referred to above present fairty, in all material respects, the financial position of Yayasan Badak Indonesia/Rhino Foundation of Indonesia as at December 31, 2011, and the financial performance and its cash flows for the year then ended in conformity with Indonesian financial accounting standard Indonesia.

Junacat, Chairulda Subyakto

Drs. Chairul Marom, Ak, CPA Izin Akuntan Publik/Public Accountant License No: 98.1.0289 Jakarta, February 27, 2012

Kuniur Punat : Jalan Kaya Kelonyarun Lama No. 194 Blok B-3 Jakaria 12220 Tel. (021) 723:5066-8 Fax. (021) 723:5069 Emuil : Jki@jes.co.id