

IRF Programs – Monthly Report April 2014

Sumatran Rhino Sanctuary YABI - Way Kambas National Park Indonesia

by Dedi Candra, DVM (Animal Manager and Senior Veterinarian)



BADAK SUMATERA - SUMATRAN RHINO (*Dicerorhinus sumatrensis sumatrensis*)

Sumatran Rhino Health Update

All of the Sumatran rhinoceros at the Sumatran Rhino Sanctuary are healthy and in good body condition. Their other activities such as browsing, walking and explore the forest with foraging are normal. It was still rainy season this period in the Sumatran Rhino Sanctuary.

Andalas

He has good body condition. Good feeding, but just little drinking in the center stall.

Forest activity also better with a bit modification by the keeper and he just once back to the stall daily in the morning. During the introduction program drive him to central stall and they were feeding together.

Founded wounds on the left pad hind leg post breeding. Become normal after fews day treatment. His pad on the left have small wounds post breeding program, but no serious problem after foot care was applied.

On April 18-21 given vitamins (Carnitol) post breeding for 4 days.

Eye Condition

Everything looks good post surgery procedure, his eye become normal with a bit spot on the middle of the right eye and his vision also getting better.

Eye treatmen:

Stop Neo-Poly-Dex on April 9 with very well healing process, almost completly healed.



Normal eye – Left



Eye – Right almost completely healed

Ratu

Excellent condition and behavior, but her foraging and browsing have decreased because no bush including young leaves anymore in the paddock 1. One paddock used by 2 rhinos is not enough to support feeding consumption.

On April 18-20 given vitamins (Carnitol) post breeding for 3 days.

Andatu

He is healthy and more wild in the forest. Nurse time almost stops and very rarely founded his nursing.

Ongoing separated program daily and especially during Ratu in introduction program, he was successfully separated from his mom for 20 hours.

Rosa

Rosa is active especially in the forest and healthy condition. Soles of feet look excellent with only very minor pitting lesions.

She has weakness post paired with Andalas during 3 days. When they together in the central stall always running around the central area.

On April 18-20 given vitamins (Carnitol) post breeding for 3 days.

Bina

She has in good condition, with sometimes have a bit problem with gastrointestinal. Her stool looks soft and watery.

On April 18-19 given vitamins (Carnitol) post breeding for 2 days.

The eye and pads are in good condition.

Other rhino information

Body weight

Sumatran rhinoceros body weight has stable at this month and used new scale since April 29.

Blood collection

This period we collected blood samples from Andalas, Bina and Rosa, Overall looks normal result of hematology and serum chemistry except Rosa, she has shown a moderate drop in his hematocrit, hemoglobin and RBC count.

Pad (foot) condition

The rhinos occasionally suffer from minor pitting ulcerations of the foot that seem to affect most of the sanctuary rhinos from time to time, especially during the wet rainy periods.

Fecal Collection

Fecal samples were checked regularly and some worm eggs and protozoa were still found in rhino's stools.

Reproduction

Sumatran Rhino Reproductive April 2014

Bina: No introduction program in this month.

Andalas introduction program with Rosa

Rosa was an ultrasound examination regularly in this month.

Rosa has introduced with Andalas on April 2, 3, 5, 6, 10, 11, 12, 13, 14, 15, 16. Very nice responses during paired on April 14, 15 and 16, Andalas was mounting 4 times (on May 14 and 15 once mount daily for 1 minute and 2 times on May 16 for 2 minutes). Just like usual, all mounting happened always in the front of the central stall soon after the gate opened. On April 17 ovulation confirmed on left ovary.



Rosa with her tail held high and her rear facing Andalas as we prepare to mix Andalas with Rosa for breeding purposes. Although there was no intromission/copulation, the behavioral signs of Rosa continue to evolve and seem much more compatible with the male, Andalas.

Andalas introduction program with Ratu

Ratu on April 7 was introduced and on April 17 and 18 continuing introduction, then paired in the center area. Very nice response through the stall's bars. Looks new style of Andalas, he always tried mounting female in the front of central stall, 2 times during this time he was mounting Ratu. Ratu has scare little bit after long times no breeding program and after that she always avoids him.

Andalas and Ratu in the breeding program



Interesting, this period is the first time she continued to breeding program since she has the baby “ Andatu”. Andalas has enthusiasm to pairing with Ratu, he was mounting, but not intromission yet.

On April 9

Production House from Germany (FIRST ENTERTAINMENT) visited in the SRS site with the purpose of rhino movie shooting and bring the new ultrasound machine (GmbH - RUS9000F series) for SRS



First Entertainment crews take rhino movie shooting and interview srs's veterinarian and rhino's keeper



Dr. Dedi apply ultrasound examination on Rosa with new ultrasound machine was donated by First Entertainment.

On April 9

WWF International as participants meeting in Lampung (Christy William, Anwar P, and Ali) visited the SRS with the purpose see the rhino and discussion with SRS's veterinarian.

On April 12

Again guess from WWF International visited SRS location. 30 participants were visited the SRS at this time with the purpose see the rhino and discussion with SRS's veterinarian. Dr. Dedi was given presentation about YABI activity in general and especially the SRS program. See the rhinos in the paddock 1 (Ratu and Andatu).



Trip to Sabah Malaysia on April 21-25

Director of WKNP (Sri Andajani) and SRS's Animal Manager was a visit to BORA in Tabin Wildlife Reserve Sabah - Malaysia.

Base on Invitation To Visit Sabah And Borneo Rhino Sanctuary (BRS) Program From Bora Executive director (Junaidi Payne). The purpose this trip to observe the ongoing work on the Sumatra rhino, and to discuss how this might be integrated with Sumatran rhino work in Indonesia, also protected area management in Sabah.

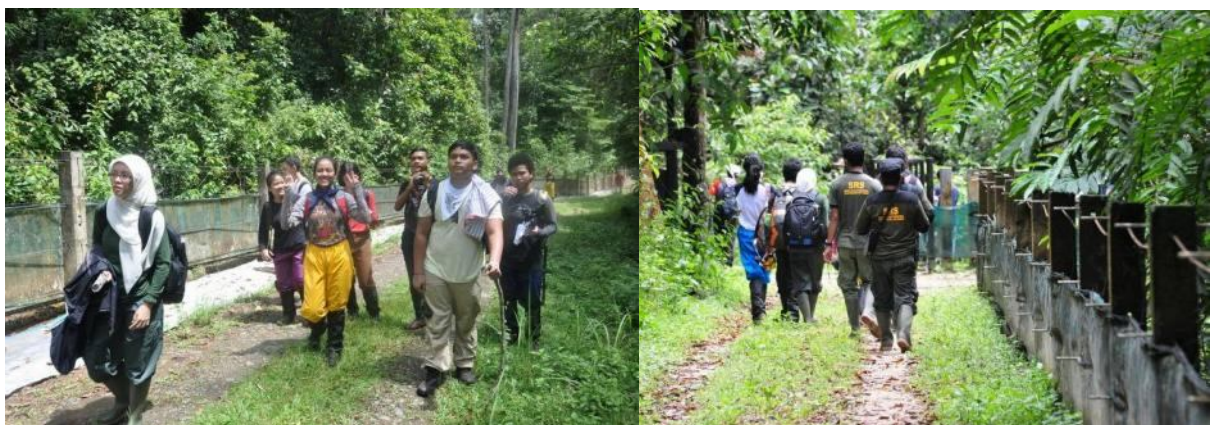


Dr. Zainal is guiding us to BORA facility tour in Tabin Wildlife Reserve Sabah Malaysia

On April 15

Student from Madania School Bogor visited SRS for field study focusing on Sumatran Rhino Conservation, the field studying that take place in the Way Kambas National Park where the SRS is included in the activities.

SRS is practiced covering activities of presentations and discussions in the visitor center by Dr. Dedi Candra, visit to rhino stall (Ratu and Andatu). 45 students with 3 teachers and 4 guides were participating in this trip.



On April 30

Hearing/audience with local government (Pemerintah Daerah - PEMDA) Lampung Timur. The participant in this meeting is I Wayan Sutarja (PEMDA Secretary), PEMDA Asisten II, Sudarsono (Head of tourism service), M Nabhan Gumanti (Head of Forestry service), Widodo Ramono (Director Executive YABI), Sumadi Hasmaran (Facility Manager SRS), Dedi Candra (Animal Manager SRS) and Sugondo (Administration of RPU). The result of this meeting is PEMDA as local government will support YABI activity to Sumatran rhino conservation program.

Reference:

SRS daily report

IRF Programs – Monthly Report May 2014

Sumatran Rhino Sanctuary YABI - Way Kambas National Park Indonesia

by Dedi Candra, DVM (Animal Manager and Senior Veterinarian) and

Hayani Suprahman, DVM., MSc (Veterinarian)

BADAK SUMATERA - SUMATRAN RHINO (*Dicerorhinus sumatrensis sumatrensis*)

Sumatran Rhino Health Update

All of the Sumatran rhinoceros at the Sumatran Rhino Sanctuary are healthy and in overall good body condition.

Andalas

He has good body condition. Forest activity also better with 3 hours wallowing at the afternoon and he just once back to the stall daily in the morning. His stall in the paddock 3 but during the introduction program drive him to central stall for daily activity and wallowing also decline during this time.

On May 12-15 given vitamin (Carnitol) post breeding for 4 days.

Eye condition, has good progress and almost completely healing with small spot still in the middle of cornea of his right eye.

Ratu

Excellent body condition and behavior, but her foraging and browsing have decreased because no bush including young leaves anymore in the paddock 1. One paddock used by 2 rhinos is not enough and almost all food supplies from outside her paddock. Ratu and Andatu has been separated for 4-5 hours daily. She has in a breeding program with endless hope her will success with pregnancy again.

Speed up weaning process of Andatu. Complete the paddock 2 so that it can be in service.

Andatu

He is healthy baby rhino and since mid of this month wasn't a nurse anymore. He has in a separated program every day, Ratu in the big paddock and Andatu in the Boma. When together with his mom in the forest, he still have played with his mom.

He has more aggressive, especially in the forest and starting for urine spray but still a little.

Separated program for Ratu and Andatu

Separate Ratu with Andatu soon (max next 1 month on mid of June) - so far we successfully separated them for 5-6 hour daily and during breeding program was separated for 15 hours. Speed up the process of weaning.

Rosa

She has been active in the forest and enjoying the environment. Rosa is a healthy rhino.

Almost every morning is found close to the stall 4.

On May 20 (found) her eye was watery with a of bit redish condition, treatment with Zink Sulfate was given on the next day resulted to become normal.

She got few scratches of wound on abdominal following post breeding with Andalas but not serious wounds.

Bina

She is in a good condition with less aggressive, but remains alert. Sometimes she has a bit problem with gastrointestinal. Her stool looks soft and watery a few time in this month, but become normal in next few days. Her foraging activities also declines because young leaves and bushes decreased in her paddock. Eye and food pad condition are good in this month.

Ambassador Program

- ✓ **Bina as ambassador for tourism** – Bina is getting old, she is 31+ year old right now, but she has good condition without abnormality except her cycle sometimes irregular. In the other reason many peoples need to see sumatran rhino directly and Bina is one good candidate for this but need a bit modification of her stall such as with putting a platform to provide good viewing for visitors.

Other rhino information

Body weight

SRS's Sumatran rhinoceros body weight are generally stable in this month with a bit fluctuation.

Hoof (foot) problem

All rhinos at the sanctuary have good hoof and foot pad condition with just minor problems that are found.

Blood collection

Bina and Andalas on May 11 with good result

Rosa on May 25 with a bit decreased hematology result.

Ratu and Andatu were difficult to blood collection because they are still together in the stall.

Mineral supplement for saltlick

The natural salt lick is utilized in the forest, all rhinos often lick and eat mud in the wallow especially after waking up. Continued in the supplementing of salt lick, in the stall, mineral block was given to Bina, Rosa, Ratu and Andatu but, to Andalas just normal salt mix with drinking water were given since mineral block supplement was stopped in early May, waiting for serum mineral analysis.

Health Program

- ✓ Prepare **routine medical drug and equipment** for rhinos and laboratory.
- ✓ **Sample collection:** blood (monthly), Fecal (weekly), Urine (weekly), Ectoparasite (daily). Ratu not collected since got baby and will start to collecting again as soon as possible. Andatu will start for blood collection with daily training.
- ✓ **De-worming** (twice per year)
- ✓ **Tetanus Toxoid (TT)** vaccine as booster (yearly) except Andatu, he doesn't have TT vaccine and this is first for him.
- ✓ **Plan:** Focus on Hot Health Issue: **Diseases Surveillance** and **Iron storage disorder** - Fe (Iron, Ferritin, Transferin saturation, and Total iron binding capacity).

Review of SRS Iron Levels and a Plan to Monitor Hemochromatosis

Given the recent loss of Suci (before Emi) related to hemochromatosis (iron storage disease) we agreed on the SRS plan that a more comprehensive iron monitoring program would be useful for the general health management of Sumatran rhinos. Regular iron-monitoring programs for captive browsing rhinoceros may help us better understand the disease. At the SRS, we have been measuring serum iron on a regular basis and banking samples for later ferritin assay. Because the assay of serum iron in itself is a relatively inaccurate measure of body iron loads we feel it is important to plan serum sample to the preferred reference laboratory. So far Kansas State University with established rhino-specific ferritin assay, however many experts said the result not too accurate. Base on Dr. Terri Roth information, Cincinnati zoo will make a kit for iron testing to collect serum data from other rhino like as Ipuh and Rapunzel. Hope this kit will be useful for SRS rhinos to monitor the iron storage disorder.

The following table summarizes the serum iron stores of the Sumatran rhinos at the SRS last year, these data do not show a trend in iron loading in the animals at the SRS, however, it will be important to conduct further testing, including assay for serum ferritin, transferrin saturation, and iron-binding capacity to determine if hemochromatosis is a problem in this population and in comparison to US zoological animals.

Difficult to find specific laboratory reference in Indonesia for completely Iron storage, analysis but at least we know about the general mineral level. Monitoring of mineral levels of the serum sample - especially Fe, Ca, P and Na are important for monitoring iron contamination. Serum minerals sample were sent to a reference laboratory (Balitnak Bogor) for further analysis.

SRS STAFF HEALTH Monitoring

Purpose

Animals and people can share infectious organisms and disease (those diseases that infect both animals and humans are called zoonosis). Although rhinoceros also have their specific health problems different from those of humans, the close contact between people and animals necessitated by captive programs represents a significant risk. Given the close working relationship between the SRS staff (particularly the keepers) and the sanctuary rhinos, good preventative health measures are mandatory to ensure safety of the rhinoceros collection.

Keeper and Veterinary Staff, Guards and Daily Workers (food collectors)

Pre-employment: General checks to include complete blood count (CBC), free of Salmonella, tuberculosis (TB), and Hepatitis B.

Employment: General health check-up yearly, Blood Hematology (CBC), Blood chemistry as prescribed by doctor, Chest X-ray, Salmonella fecal culture, if founded positive Salmonella, give treatment and re-culture.

Treatment and preventive: Any SRS staff member that becomes ill is immediately sent to the doctor and is not allowed to work with the sanctuary rhinos, treatment depends on illness (for common illness such as flu, trauma, etc. staff visit the local Way Kambas village doctor) and de-worming 2x per year.

Sumatran Rhino Reproductive May 2014

Ultrasound examination:

Routine ultrasound has continued to be a useful tool for the SRS veterinary team to use in monitoring and predicting the optimal time for mating in the females Sumatran rhino.

Recently, we followed Rosa's and Bina cycle and observed a pair of growing follicles, one on each ovary. Ratu has habituated with USG examination and her cycle becomes regular.

Ultrasound Machine donated for SRS

On May 27 SOS Rhino (Dr. Nan S) through Cincinnati Zoo (Dr. Terri Roth) donated new ultrasound machine to support reproductive program at the SRS.

Dedi Candra trying new ultrasound machine in the Ratu's stall together with Dr. Hayani Suprahman, Dr. Susie Ellis and Dr. Terri Roth

The ultrasound (USG) machine also be tested to other female rhino Bina and Rosa.

Rosa

Rosa has ultrasound examination regularly in this month. Rosa now has a regular schedule for the introduction program with Andalus and continues to be monitored her behavior and reproductive cycles.

Rosa was introduced to Andalus on May 7 with a bit of better respons, but still no "on position". Continuing introduction on May 11. She has good follicle 23, 8 mm on left ovary on May 11. A bit too big, but when we introduced she looked receptive, many times "on position". In general, it was a very good introduction a process of Andalus and Rosa. They showed more interest, better response and has no aggressive through the stall. When the gate was opened Andalus directly mounting in the front of central stall for 2 minutes without intromission happened, the keeper tried to assist but no erection at this time, as soon as Andalus got down and Rosa runed away. Andalus showed good response by walking to follow Rosa is track slowly, no aggressivity and he seems to love Rosa very much but Rosa still scares with running away. After a few minutes in the center area, we separated them by driving Andalus to the center stall again. In the next few minutes, she approached the stall again and did good courtships between bars, followed with us opened the gate and again Andalus was mounted for 2 minutes, nor assist in this time but again he didn't be perform erection, a bit slippery and down. Next ritual just like usual, Rosa becomes a bit stress and look tired, so we separated them.

Bina:

Bina has ultrasound examination regularly in this month, but didn't find good follicle, she has big follicle in both ovary (the follicle is getting bigger more than 26 mm in size) and since Andalus got eye problem and in serious treatment we didn't focus her for introduction because she always fighting during the introduction or pairing and of course will be dangereus for Andalus's eye.

Ratu

Ratu has ultrasound examination regularly in this month and we found good follicle on the right ovary.

Ratu on May 6, 8, 9 both of them were introduced through the stall and with just a few minutes of good response (bad response overall).

She has good follicle ~ 19, 3 mm on right ovary on May 9, clinical signs was unclear and during introduction times she has a normal behavior, we haven't found special interest from her. When we tried to put them together in the central area, Andalas mounted her on the front of the central stall for 2 minutes just like Rosa. Down and Ratu runed away, after a few hours in the center area, we separated them after both of them showed no good response anymore. Interesting actually she had a good follicle but hadn't shown good response during the introduction, this was unusual for female Sumatran rhino with good follicle. More interesting was that she confirmed ovulating a day after being paired. Not a good response and no breeding, but she was ovulating.

Andalas and Ratu interact between the fence prior on a regular basis to help socialize the two and facilitate behavioral observations.

Introduction again Andalas and Ratu on May 29, 30 and 31

On May 28 Ratu had 19.95 mm follicle on right ovary, introduction with Andalas but bad response, Ratu in the center area for 7 hours. Again On May 29 she had 19.61 mm follicle on right ovary, bad clinical signs and continues to introduce, again bad response and just few hours there. Not too much change on May 31. Again in general, Andalas and Ratu were showing bad response however she have good follicle.

Reproductive Program

- ✓ Focusing on Natural breeding in this year
- ✓ Combine with technology reproduction – just AI available this year
- ✓ **Andalas: plan to** monitor reproductive organs with **Ultrasound** regularly (3 times per year)
- ✓ **Ratu, Rosa and Bina: plan to** monitor cycle with **Ultrasound** regularly (twice per week)
- ✓ **Plan to** monitor hormone level with **Fecal hormone** analysis over time
- ✓ Prepare possibility for **Collect egg (oocytes) or ovum pick up**

Individual Sumatran Rhino Reproductive Program:

Andalas

- ✓ Continue **semen collection** (at least once per year) but depend IRF budget and IRF is included Dr. Terri Roth give recommended using semen banking on the SRS stock first. Natural breeding is a priority in this year. Send separated semen collected and fibroblast cell to Eicjment for safety

Bina

- ✓ Continue to apply **Artificial Insemination** (AI) with Andalas and or Tam semen. Done AI applied for 4 time but not success yet because the follicle doesn't ovulation
- ✓ Prepare possibility for **embryo transfer** – Embryo from BORA (but we need a formal agreement between Indonesia and Malaysia before that will happen)

Rosa

- ✓ Continuing **Natural breeding** program
- ✓ **Brake hymen** with manual method – slowly, step by step and if failed or Andalas can't breed and brake her hymen we plan for surgery on last of this year.
- ✓ **Change her behavior** with limited access to peoples, including visitor and tried to put together with Andalas as long as we can in the center area, if he still try to escape prepare chain ling in the surrounding center fences. Give chain ling in the next 5 months if not too much changes her sexual behavior.

Ratu:

- ✓ Continuing **Natural breeding** program and or combine with **AI**.

Andatu

- ✓ Document **calf puberty** (behaviour, footprint, body measurrement, fecal and urine)

SRS Staffing

Since May 6 a new staff veterinarian Dr. Hayani Suprahman has been hired to assist Dr. Dedi Candra as senior veterinarian at the SRS. This appointment helps provide the necessary veterinary coverage of the SRS to allow appropriate staff-leave time. Dr. Ayani Suprahman comes with the SRS from retired government staff as director of Tesso Nilo and Berbak National Park. He is excited about applying his skills to the Sumatran rhino and becoming an integral part of the SRS team.

Visitor

On May 24

Student from Lampung University visited SRS for field study focusing on Sumatran Rhino conservation, the routine every year field studying that take place in the Way Kambas National Park where the SRS is included to the activities. In-house field study at the SRS is practiced covering activities of presentation in the visitor center, visit to rhino stall (Ratu and Andatu) and discussions. 40 students with 3 teachers were participating in this trip.

On May 27-28

IRF (Susie Ellis, Terri Roth, Bibhab K Talukdar and Sectionov) visited the SRS site with the purpose of discussing with SRS staff about the program of the rhinos at the SRS and bring the new ultrasound machine for SRS.

Reference:

SRS daily report

IRF Programs – Monthly Report June 2014
Sumatran Rhino Sanctuary YABI - Way Kambas National Park Indonesia
by Dedi Candra, DVM (Animal Manager and Senior Veterinarian) and
Ayani Suprahman, DVM., MSc (Veterinarian)
Sumadi Hasmaran (SRS Manager)

BADAK SUMATERA - SUMATRAN RHINO (*Dicerorhinus sumatrensis sumatrensis*)

SRS program targets and result of June 2014 :

1. **Rhino healthy (continue regular monitoring and inspections)** – well done and all rhinos is healthy condition. Rhino's body temperature 36.5°C – 37.4°C in normal range.
2. **Breeding success** – No breeding was achieved.
3. **Separate Ratu and Andatu** – failed because renew paddock and stall 2 still on progress. Complete the paddock 2 so that it can be in service.
4. **Diseases Surveillance** – well done collected fecal samples surrounding Way Kambas National Park (total 30 villages).

Sumatran Rhino Health Update

Normal routines monitoring were follow and the health of all five rhinos now at the Sumatran rhino sanctuary facilities is good and healthy condition. Their other activities such as browsing, walking and foraging are normal except Ratu and Andatu, which their location in the paddock 1 no young leaves anymore. This month the weather is still dry but slightly better with fews day's rains.

Andalas

There was no health problem with Andalas this month. His body condition is healthy with a bit decreased of hematology result. He has been more active in the forest and enjoying the environment.

He is calm and friendly towards people, probably because he is accustomed with human since he was born in a zoo. He enjoys his time in the stall 3 in this month during introduction program drive him to central stall. When he is in the forest, he would better actively browse for food. He needs a lot variety of food. If he has become bored with one kind of leaf then he will refuse to eat that kind and will ask for different kinds.

A adult sumatran rhino male "Andalas" enjoying explore the forest in the paddock 3 for daily activities.

His right eye getting better and better but white spot still on the middle of cornea. Everything looks good and his vision also become normal

Rosa

Rosa is healthy rhino. She is active in the forest but she still tries to get human's attention and this is problem. She actively browses for her food and dig her wallow. She routinely goes to the stall in the morning then to the forest after being clean and fed inside the stall. In the afternoon, she sometimes approached the stall area before walking to the forest to browse. Treatment: On June 28, give treathened with de-worming (Ivermectin) 14 ml.

Bina

She is in good condition with sometimes was founded watery of fecal. Just like diare and bloat with increasing of peristaltic but not found indicated of infection. It could be cause by the helminthes parasites in her intestinal.

She was usually aggressive toward people, but recently she was less aggressive but remains alert, both in the stall and in the forest. She is still easily shocked or surprised, especially when there was sudden noise or sudden movement near her. Therefore, we have to be careful when being around her.

Although Bina is getting older, there was no sign of illness visible. She is active in the forest and shows no signs of aging. She has intermittent problems with ocular cloudiness related to excessive exposure to UV radiation.

Treatment:

- ✓ Her eyes are treatment with zinc sulphate (ZnSO_4) everyday as long as the cloudy eye occurred.
- ✓ On June 21 treathened with Norit and Permethyl (anti-bloat).
- ✓ On June 28 treathened with de-worming (Ivermectin) 14 ml.

Ratu

Good body condition and behavior but her foraging and browsing have decreased because no bush including young leaves anymore in the paddock 1 because this paddock used by Ratu and Andatu is not enough and we anticipated with collected food supply from outside the SRS location. Ratu and Andatu usually eat the prepared leaves near the stall in the morning especially in this month original fruit in paddock 1, both of them enjoyed.

She has in breeding program with Andalas and hopes her will success with pregnancy again.

Original Way Kambas fruits and Ratu-Andatu enjoy eating this fruit.

Andatu

Not too much changed with Andatu. He is healthy baby rhino and since mid of this month wasn't nurse anymore. He has more aggressive especially in the forest but still close relationship with the keepers and doctor.

Separated program for Ratu and Andatu

One of important moment and program at the SRS is separated mom and baby. This is not easy because both of them very close relationship. Ratu and Andatu has separated succesfully for 4-5 hours daily. Speed up the process of weaning.

However we has been success to separated them for 4-5 hours daily but when they were together in same place still good interactions each other.

Happy Birthday to baby Sumatran rhino's "Andatu"!

Ratu's pregnancy progressed normally for 15.5 months. On June 22, 2012 at about 12:45 am, baby rhino "Andatu" was born. Andatu is the first Sumatran rhino born in a breeding center in Asia. This provided a significant boost to breeding success program at the SRS.

Two year later, Andatu's growth up very well; he weighed in at about 490 kg. Beginning to show some independence, he frequently wanders by himself in the large forest enclosure into which he and Ratu has released each day.

Andatu's first baby on June 23, 2012

*Indonesian Ministry of Forestry was
celebrated Andatu first Birthday last year*

Andatu has grown from about 25 kg at birth to 490 kg on his second birthday!

Andatu June 23, 2012

*Andatu June 23, 2014 - Today is Andatu's second
Birthday, Andatu is a young rhino male!*

Andatu's the second Birthday even at the SRS

Pray together with local peoples at the SRS's mosque

Discussed at the SRS office lead by Pak Widodo (Lampung Police dept, WKNP staff, Rpu and SRS staff) and than go to Andatu's stall for celebrate.

Extra fruits is special diet today!

Birthday with rain – enjoy

Others rhinos also join to Andatu Birthday

Other Andatu Second Birthday celebration

Dr. Dedi was give Andatu special fruits and greeting love in this moment

Director of Conservation and Biodiversity of PHKA and Pak Widodo was give the special thanks to Ratu and Andatu keepers at the stall 1

On June 28 Director of Conservation and Biodiversity of PHKA (Bambang), Director of WKNP (Sri Andajani), Director of YABI (Widodo Ramono), SRS Manager (Sumadi), SRS Veterinarian (Dedi Candra), Director Program of BBSNP (Muniful) and PHKA staff (A. Muin and other) in the front of Andatu stall to supporting the SRS program and celebrated Andatu 2nd birthday.

Other Rhino Information

Hoof (foot) problem

All rhinos at the sanctuary have good hoof and pad condition just small problems have found. The keepers usually do treatment for rhino feet once every 2-3 days. They wash feet using antiseptic solution then apply topical ointment.

Body weight

From the table above we can see that the SRS Sumatran rhinoceros body weights are steady with a bit fluctuation in this month. The rhinos are usually weighing in the morning after being clean and before eating any food. That way we can weigh their exact weights, without any mud or food inside. However, the result may still vary as the rhinos probably have browsed some leaves or drink in the forest and have not defecated. However, if the weight difference is below 10% is still considering normal.

Blood collection

Bina and Andalas on June 21

Bina is good result but Andalas have a bit decreased in hematology (RBC, Hb and HCT) but still in normal range.

Mineral supplement for saltlick

For saltlick supplement just normal salt mix with drinking water were given.

Stop mineral block supplement since early of May and just waiting for serum mineral analysis result (ongoing serum mineral analysis at the Bogor Livestock Research Center (Balitnak Bogor)).

Given the recent loss of Emi and Suci related to hemochromatosis (iron storage disease), we agreed to continue monitoring SRS's serum iron (Fe) level. A regular iron-monitoring program for captive browsing rhinoceros may help us better understands the disease.

Wallowing

Wallow is important facility of sumatran rhino, wallowing as special ritual activity for hairy rhinoceros. Sumatran rhino will wallowing at least two time daily at the afternoon and night with 2-4 hours wallowing for each time.

Sumatran Rhino Reproductive June 2014

Ratu

Rosa has ultrasound examination regularly in this month. Countinuing introduction program with Andalas.

Ratu's ultrasound image in the left ovary with good follicle 18.94 mm on June 7 (left) and small follicle on June 27 (right)

She have good follicle ~ 19 mm on left ovary on June 7, clinical signs was clear and optimistic will be breeding in this period. Unfortunltly when introduction times she doesn't care and avoid center stall, just few minutes she approaching stall with keep distance. We

not found special sexual interest from her. Again, interesting actually she have good follicle but not showed good response during introduction, this is unusual for female sumatran rhino with good follicle. On June 8 continuing introduction with same response with yesterday.

On June 9 ultrasound examination showed her follicle getting smaller on left ovary. Our suggested she has thinking about her baby Andatu, if they totally separated we are optimistic Ratu more focusing to breeding activity with Andalas. Ratu also prepare to Artificial Insemination (AI) program.

Ratu in the front of center stall where Andalas inside and she was showed less response

Rosa

Rosa has ultrasound examination regularly in this month. Continuing introduction program with Andalas.

On June 9 she have 23.93 mm follicle on right ovary with the mucous membrane of vulva was reddish in colour and Rosa has introduction with Andalas today. Few time she was gived good reponse with on mating position (standing heat) in the front of center stall. Andalas showed a good courtship response. About 4 hours she has activity close to center stall and pairing them at 13.30 pm, Rosa ready to mate but Andalas was chasing her and Rosa run away. In one time they met in the wallow and wallowing together but in in one wallow about 5 m distance, Rosa has very noising and Andalas approaching her slowly. Rosa look very tired and weakness. The keepers had been separated them after 7 hours in the center area and actually she doesn't have peak of estrus in this period, 23.90 mm a bit big than normal pre ovulatory follicle.

Rosa's ultrasound image in the left ovary with good follicle 21.93 mm on June 9 and follicle continue to growing up 30.15 mm on June 10 (left). Founded small follicle on June 27 (right)

Bina:

Bina has ultrasound examination regularly in this month but didn't found good follicle, on June 9 she have two big follicles on the right ovary (old follicle). There was no sign of estrus overall.

Bina's ultrasound image in the left ovary with very big follicle 29.07 mm on June 15 (left) and follicle decreased to 24.65 mm on June 27 (right)

SRS Re-organisation of Management

Base on YABI Director letter on May 2, 2014 (No: 02/SK/Direktur/V/2014), Mr. Sumadi Hasmaran as SRS Manager right now.

Visitor

U.S. Department of Treasury visited Way Kambas National Park on June 4-5, 2014.

U.S. Department of Treasury Negotiating Officer Ms. Catherine (Katie) Berg was visited the Park on June 4-5, 2014 accompanied by:

- ✓ Anthonius (Tony) Djogo (USAID)
- ✓ Benjamin Wohlaue (U.S. Embassy) – TBD
- ✓ Sectionov (IRF Liasion)
- ✓ Noviar Handayani (WCS - IP)
- ✓ Aief Rubianto (RPU YABI)

Focusing on discuss potential additional funding to support sumatra rhino sanctuary from TFCA-Sumatra

Dr. Dedi was give a presentations of SRS management and SRS program in the future.

Continue to rhino tour to see sumatran rhinos in the paddocks.

After SRS trip, all participant including SRS and RPU staff go to WKNP office to discussed with Director of National Park and Staff.

Dr. Dedi gave presentatin about SRS program and progres (top left), Photo sesion in the front of WKNP office (top right) and discussed with Director of WKNP in the office (bottom)

Bowling For Rhino Juni 10-12, 2014

The unique of the idea (called "Bowling For Rhinos") is that these fundraisers are organized by American Association of Zoo Keeper volunteers, who donate their time and organizational skills to help raise money to send directly to the places in need. Since all the people involved are volunteers, all donations are sent directly to these in-situ rhino conservation areas to save the rhino!

The participants bowling for rhino 2013 (bowler) are Crystal Butler (Oklahoma City Zoo), Pace Frank (Oklahoma City Zoo), Kenton Kerr (Smithsonian's National Zoo), and Kristen Hetherington (Oklahoma City Zoo). Guiding by IRF Member are Sectionov (IRF – Indonesia) and Bill Konstant (IRF – US),

One of Bowler trip to Way Kanan River in the WKNP with RPU team

Dr. Dedi was give a presentation about the SRS program at the SRS office

The Second Population of Javan Rhino Workshop on Jun 23-24, 2014 at the Santika Hotel Bogor

Javan rhino (*Rhinoceros sondaicus*, Desmarest 1822) is the most endangered species among the five species of rhino in the world. Currently there are only Javan rhino in Ujung Kulon National Park, after 2010 Java rhino declared extinct in Vietnam. Javan rhinos living in one population only by a small population (50-60), and potentially could reduce the quality of genetic inbreeding. This condition causes the survival of the Javan rhino in the end be very small and very vulnerable to extinction.

The second prospective studies of Javan rhino habitat have been conduct at several locations by various institutions. Discusses and recommended for second habitat (population) of Javan Rhino is needed. Dr. Dedi as SRS veterinarian was participant in this workshop.

*Director of YABI (Widodo Ramono) gave presentation “Report on a second habitat assessment for the Javan Rhinoceros (*Rhinoceros sondaicus sondaicus*, Desmarest 1822) within the island of Java”*

YABI visited PT. Indokom Samudra Persada schrimp factory at Tanjung Bintang Bandar Lampung on June 26.

Participants are Widodo Ramono (YABI), Sumadi, Dedi Candra (SRS), Rahman and Bonari (RPU). Activities are factory tour, discussion about donation and August SRS visit plan.

Summary of discuss are as follows:

1. Continuing cooperation program 2014 - 2015 between Rai Seafoods Limited, Lampung Farming community, PT Indokom Samudra Persada, and SRS YABI – need renew MOU
2. More detailed elaboration of the SRS YABI Proposals manufacture laboratory by inserting the following: - project time scale, detail purposes (equipment, man power, electricity supply, employment programs, infrastructure, cages exhibit for visitors, running cost, services, etc)
3. Rai Seafoods Client UK-M & S - delaying a decision on the continued provision of funds to support the activities of SRS YABI period 2014 - 2015, but nevertheless, Rai Seafoods, PT Indokom and farmers tiger shrimp in Lampung still agree to continue making donations.
4. Delivery of products to the UK began in March 2014 donation to the calculation of the SRS is from March 2014.
5. Donation has agreed to support the manufacture of Laboratory SRS (based on the SRS proposal)
6. Rai Seafoods remains actively communicate with other top UK Client positive activities of the team SRS YABI and strive to increase the number of donations.
7. Visit Rai Seafoods Limited with UK client to SRS Way Kambas in August 2014 (2 group visit) - as always hope is that we use this opportunity as well to provide positive information for the activities of SRS.

Diseases Surveillance at the Bungur area - Way Kambas National Park on June 17-18

Diseases surveillance is routine program of YABI since 2006 and this year focusing on Dr. Dedi thesis research (Master study at the Lampung University). Collaboration trip with “Unicon II”, Way Kambas National Aprk (WKNP) Forest ranger and Rhino Protection Unit (RPU) patrol well done at the Bungur area of WKNP. We success collected fecal samples from 7 villages to added total 30 villages previously. Diseases surveillance information is very usefull for wildlife conservation in the WKNP especially about diseases cross section between domestic animal and wildlife.

Bungur trip with Unicorn II

Collected domestic animal fecal sample from surrounding villages in the WKNP and boat patrol trip

In the fronth of WKNP Bungur office

Fecal samples collection well done during this trip especially at the bungur area of WKNP.

Reference: SRS daily report

SRS FACILITIES REPORT ON MAY 2014

Routine SRS Facilities Maintenance on May 2014 :

No.	Facilities	Units	Condition	Activities/Description
			May	
A.	Vehicles :			
	1. Isuzu Phanter (Picku-up)	1	Good	Newly Repaired
	2. Isuzu Phanter (Touring)	1	Good	Newly Repaired
	3. Ford Ranger (4WD)	1	Good	Create a new tarp and oil change
B.	Bobcat	1	Good Enough	Never used
C.	Motorcycles :			
	1. Honda GL Max 2005	1	Not Good	oil change
	2. Honda Mega Pro 2010	1	Good Enough	Chain and gear oil change
	3. Honda Mega Pro 2010	1	Good Enough	Oil change, front brake, and replace the inner tube
D.	Mountain Bicycles	14	Good	All the damage bike repaired
E.	Generation Machines :			
	1. Genset MWM 40 Kva	1	Good	-
	2. Genset Kubota 20 Kva	1	Good	Oil change
	3. Genset Kubota 8 Kva	1	Not Good	Never Used
F.	Cleaning Equipments :			
	1. Chain Shaw	2	Good Enough	The large chain shaw broken
	2. Cutting Grass Machine	2	Good Enough	1 cutting grass machine is broken (can't repaired)
G.	Radio Communcation :			
	2. Radio HT	13	Good Enough	-
	3. Repeater Motorola	1	Good	-
H.	Electric Fences			
	Energizer	2	Good	-
I.	Fences and Stall			
	1. Fences all Around SRS	4 Km	Good	-
	2. Stall for Rhino (6x8) mtrs	6	Good Enough	2 cage need repaired
	3. Fences for Inside Border	10	Good Enough	in the 2 cage wire cross should be replaced
J.	Bulliding Facilities :			
	1. Main Building	1	Good Enough	Many leaky roofs and fragile
	2. Mess Building for Staff	1	Good Enough	Many leaky roofs, fragile and needs paint
	3. Diesel Room & Car Garage	1	Good	-
	4. Visitor Centre	1	Good	-
	5. Pos Guard	1	Good	-
	6. Mosque/Musholla	1	Good	-
K.	Water Pump			
	1. Artesis Well (3 Kva)	1	Good	-
	2. Pompa Dorong (5Kva)	2	Good	Just one engine in service
	3. Pompa Dorong (1Kva)	1	Good	-
L.	All Furniture Equipments		Good Enough	-

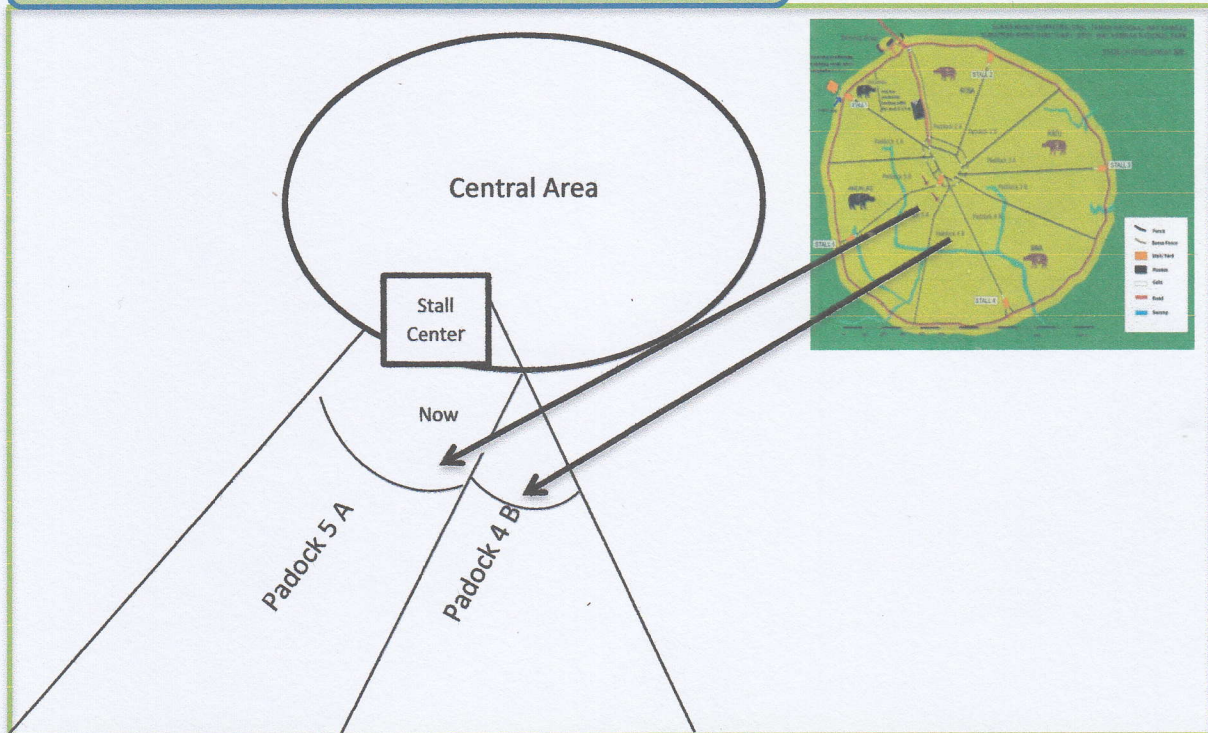
Working SRS Facilities which has been done on Mei 2014 :

No.	Activities
1	Rhino Fences Maintenance :
	Creating a new partition in the padock 5 A with a distance of about 85 m from the circle
2	Management Facilities Maintenance :
	build two new cage, poles already standing, just a cement floor

Month Work Plant in June 2014

No	Activities
1	Cement floor of the cage 2
2	replace five of the wooden enclosure pole and an iron pillar (Need Fee About Rp. 30.000.000,-)
3	Set a new wire cross ini the cage two (Need 3 Wire Cross and fee about Rp. 27.000.000,-)

NO 1 : Creating a new partition in the padock 5 A



NO 2 : Build two new cage



SRS FACILITIES REPORT ON JUNE 2014

Routine SRS Facilities Maintenance on June 2014 :

No.	Facilities	Units	Condition	Activities/Description
			June	
A.	Vehicles :			
	1. Isuzu Phanter (Picku-up)	1	Good Enough	Newly Repaired
	2. Isuzu Phanter (Touring)	1	Good	Oil Change
	3. Ford Ranger (4WD)	1	Good	-
B.	Bobcat	1	Good Enough	Never used
C.	Motorcycles :			
	1. Honda GL Max 2005	1	Not Good	-
	2. Honda Mega Pro 2010	1	Good Enough	-
	3. Honda Mega Pro 2010	1	Good Enough	Change the oil dan clean the carburetor
D.	Mountain Bicycles	14	Good	-
E.	Generation Machines :			
	1. Genset MWM 40 Kva	1	Good	-
	2. Genset Kubota 20 Kva	1	Good	-
	3. Genset Kubota 8 Kva	1	Not Good	Never Used
F.	Cleaning Equipments :			
	1. Chain Shaw	2	Good Enough	The large chain shaw broken
	2. Cutting Grass Machine	2	Good Enough	1 cutting grass machine is broken (can't repaired)
G.	Radio Communcation :			
	2. Radio HT	13	Good Enough	-
	3. Repeater Motorola	1	Good	-
H.	Electric Fences			
	Energizer	2	Good	-
I.	Fences and Stall			
	1. Fences all Around SRS	4 Km	Good	-
	2. Stall for Rhino (6x8) mtrs	6	Good Enough	2 enclosure has been built
	3. Fences for Inside Border	10	Good Enough	-
J.	Building Facilities :			
	1. Main Building	1	Good Enough	-
	2. Mess Building for Staff	1	Good Enough	Create a new bathroom in the room cooks
	3. Diesel Room & Car Garage	1	Good	-
	4. Visitor Centre	1	Good	-
	5. Pos Guard	1	Good	-
	6. Mosque/Musholla	1	Good	-
K.	Water Pump			
	1. Artesis Well (3 Kva)	1	Good	-
	2. Pompa Dorong (5Kva)	2	Good	-
	3. Pompa Dorong (1Kva)	1	Good	-
L.	All Furniture Equipments		Good Enough	-

Working SRS Facilities which has been done on June 2014 :

No.	Activities
1	Management Facilities Maintenance :
	2 already in the cage floor and plug cement paving blocks
	Create a new bathroom for cooks

Month Work Plant in July 2014

No	Activities
1	Make the sink at cage 2
2	Set a wire cross in the cage 2



cage floor and plug cement paving blocks



Create a new bathroom in the room cooks



Bathroom Finished

LAPORAN KEGIATAN MANAJER & KUNJUNGAN KE SRS BULAN JUNI 2014

NO	TANGGAL	NAMA / INSTITUSI	KEGIATAN	HASIL/KESIMPULAN
1	01-Juni-14	Jepang (Ecologde) 2 org	Kunjungan Melihat Badak	Sangat mengapresiasi konservasi badak di SRS
2	4-Juni-14	Gillian Jessica, Catherin Budington (USA)	Kunjungan kerja Duta Besar Amerika Serikat	Sangat tertarik dengan kegiatan konservasi badak di Indonesia, terutama andil pemerintah dalam mendukung konservasi badak di SRS
3	10-11 Juni 14	William Robert, Kristen Nicole, Kenton Lee (USA)	Kunjungan kerja Bowling For Rhino SRS dan RPU	Mempertanyakan kegiatan restorasi apakah masih dilakukan di wilayah hutan WK dan juga apakah masyarakat sekitar diikutsertakan dalam kegiatan restorasi tersebut
4	25-Juni-14	DE YABI, KASI Way Kanan, KASI Kuala Penet beserta staf TNWK, Kapolsek Labuhan Ratu dan staf	Ulang Tahun Badak Andatu Yang Ke-2	Acara diawali dengan rapat di kantor SRS sebentar antara DE YABI, KASI TN, KASAT Polhut serta Kapolsek, setelah itu dilanjutkan ke kandang andatu untuk memberikan tumpeng buah sebagai hadiah ulang tahun dan acara selesai setelah makan siang
5	25-Juni-14	DE YABI, Lurah setempat beserta warga setempat	Syukuran Ulang Tahun Badak Andatu Yang Ke-2	Acara dimulai setelah shalat magrib dengan membaca surat yasin dan doa bersama untuk kemajuan konservasi badak di SRS, selesai yasinan acara dilanjutkan dengan makan malam dan diskusi sampai selesai
6	26-Juni-14	DE YABI, Bpk Sumadi, Bpk Dedi Chandra	Menghadiri Undangan Ibu Rosida	Membicarakan perihal jadwal kedatangan tamu ibu Rosida ke SRS serta tindak lanjut proposal pembangunan laboratorium di SRS
7	28-Juni-14	DE YABI, Dir. KKH, Kep. Balai TNWK, TN BBS, BKSDA	Kunjungan	Kedatangan Dir. KKH didampingi oleh DE YABI, kepala Balai TNWK, BBS, serta BKSDA untuk melihat badak andatu dan ratu. Disela pembicaraan beliau juga mengatakan keinginannya membantu SRS khususnya dalam pengadaan fasilitas kendaraan.

ACTIVITY REPORT MANAGER & VISIT TO SRS ON JUNE 2014

NO	DATE	NAME / INSTITUTION	ACTIVITY	RESULT/CONCLUSION
1	01-Juni-14	Jepang (Ecologde) 2 org	Visit Viewing Rhino	Very appreciate rhino conservation in SRS
2	4-Juni-14	Gillian Jessica, Catherin Budington (USA)	Working visit U.S. Ambassador	Very interested with the rhino conservation in Indonesia, particularly in the share of government support rhino conservation in SRS
3	10-11 Juni 14	William Robert, Kristen Nicole, Kenton Lee (USA)	Working visit Bowling For Rhino SRS and RPU	Questioned whether restoration activities are still carried out in the region and also whether the jungle WK surrounding communities participate in the restoration activities
4	25-Juni-14	DE YABI, KASI Way Kanan, KASI Kuala Penet bsesrta staf TNWK, Kapolsek Labuhan Ratu dan staf	Rhino Andatu Birthday	The event begins with a meeting at the SRS office briefly between DE YABI, KASI TN, KASAT Polhut and police chief, after that proceed to the cage to give the cone andatu fruit as a birthday present and the event was over after lunch
5	25-Juni-14	DE YABI, Lurah setempat beserta warga setempat	Tanksgiving for Birthday Rhino Andatu	the event begins after the evening prayers by reading the al-quran and prayer for rhino conservation progress at SRS, finished reading al-quran event followed by dinner and discussion until finished
6	26-Juni-14	DE YABI, Bpk Sumadi, Bpk Dedi Chandra	Attend Invitation Mrs. Rosida	Talking about guest arrivals Mrs. Rosida to SRS and follow-up laboratory development proposals in the SRS
7	28-Juni-14	DE YABI, Dir. KKH, Kep. Balai TNWK, TN BBS, BKSDA	Visit	Arrival Dir. KKH was accompanied by DE YABI, head TNWK, BBS, and BKSDA to see rhino andatu and ratu. Interrupted the conversation he also said his desire to help SRS facilities, especially in the procurement of vehicles.



Mr. bill and RPU team describes the discovery that they can in the forest



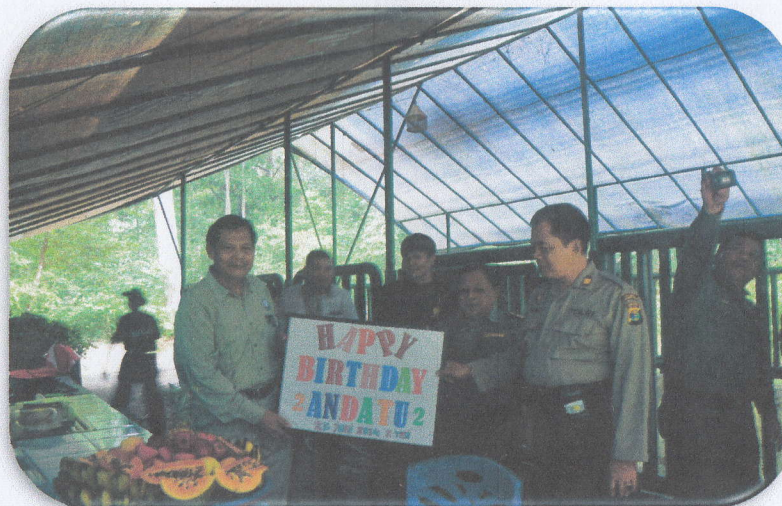
Mr. Inov and Team Bowling for Rhino around the village at night to see the traditional dances and nocturnal animals



SRS and RPU while explaining the program and activities of each to team bowling for rhino



Executive Director YABI discussion with invited guests before giving fruit to the rhino andatu



Executive Director YABI photographed with the police chief, the head sections Way Kambas national park rangers and head unit



Andatu rhino and the Ratu mother was given a fruit by the keeper



Discussion with Director KKH



Photos together as an invitation to the Mrs. Rosida



Director of KKH and Head of Nasional Park Way Kambas photos together with the rhino andalas accompanied with Executive Director YABI



Executive Director YABI and Director of KKH photograph along with the keeper rhino ratu and