



3rd QUARTER REPORT 2014

PREPARED BY: YABI SECRETARIAT

WITH CONTRIBUTION OF:

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HEADQUARTER - YABI, BOGOR



**IRF PROGRAMS:
THE 3rd QUARTER REPORT OF HEADQUARTER YABI - BOGOR
JULY - SEPTEMBER, 2014**

A. PROGRAM HIGHLIGHTS/ACCOMPLISHMENTS:

ADMINISTRATION AND COORDINATION ACTIVITIES:

Reported by Shanty Maullydianthi

July:

- ❖ July 7, YABI held a conducting internal coordination meeting through online skype between headquarters and field staff at the beginning of each month. The meeting was to discuss/review the work that has been implemented, and to create programs or activities planned for the next month.
 - ❖ July, 12 – 14, Mr. Widodo as Chairman of YABI and Head Quarter Staffs visited RPU BBS, RPU WK, RPU UK, and SRS WK for the safari ramadhan road show to employee gathering, coordination, and distributed the Eid gifts 1435 H of YABI to employees in the field.
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- ❖ July 15, Mr. Widodo and Mr. Sectionov received the guest visits from TV German, Mr. Pauli Hien, who plans to shoot documentary filmmaking in Way Kambas in the first week of October (coming in TNWK September 30, departing again on 8 October). The purpose of this film making is to increase the willingness of Europeans to donate money for projects aiming at the protection and conservation of these unique creatures (rhinos). The documentaries will concentrate on the following aspects about the Asian rhinoceros: their biology, the current situation, the sources of risk and what is being done to prevent extinction of these species.
 - ❖ July 18, Mr. Widodo as Chairman of YABI attended invitation from KEHATI foundation, to discuss about endangered species recovery program (rhinos, elephants, tigers and orangutans) on Sumatera.
 - ❖ July 21, YABI represented with Mr. Waladi as Secretary of the Board attended invitation of the Secretary of the Ministry of Environment in Jakarta to discusses about the preparation of the anniversary of 'Hari Cinta Puspa dan Satwa Nasional 2014'. Agenda for the meeting is (1) Dissolution and formation committee of HCPSN (2) Determination of the theme, flower and animal of HCPSN, 2014 (3) The preparation of a program of activities of HCPSN 2014.
 - ❖ Mr. Widodo as Chairman of YABI participated in the rhino partnership meeting

with joint secretariat of Indonesian Rhino Conservation on July 21st, 2014 in WCS Office Bogor. This meeting discussed about preparation of the draft Sumatran rhino conservation strategy.

- ❖ July 23, Mr. Widodo as Chairman of YABI attended/participated in rhino partnership strategy meeting with joint secretariat with the Director and Secretary of the Directorate General PHKA in Manggala Jakarta, as well as introducing Ms. Nan Schafer from SOS Foundation.
- ❖ July 24, Mr. Widodo as Chairman of YABI attended invitation of the Head of the Forestry Research and Development Agency Mr. Ir. Adi Susmianto, M.Sc., for the Workshop Discussion FORIS INDONESIA Development and Implementation of the National Steering Committee Meeting in IPB ICC Botani Square Bogor.
- ❖ July 25, YABI received the visit of Mr. Cameron Kerr, from Toronga Zoo Australia to RPU Bukit Barisan Selatan National Park.

August:

- ❖ August 6, YABI represented Mr. Dedi Candra received the visit of MD of Iceland Seafood Limited and their families (as a prospective donor, contact person Ms. Rosida Idriss) to SRS WK for introduction to SRS & RPU Programs, SRS Tour, and others.
- ❖ August 6, Mr. Widodo as Chairman of YABI had interviewed Mr. Zulfi Arsan, a candidate for SRS WK veterinarian who at the same day he also did the health checks in Prodia Lab.
- ❖ August 7, finance staff meeting between Ms. Shanty and Ms. Nienda with Mr. Bibhab Talukdar and Mr. Sectionov in Bogor office to discuss YABI evaluation, and prepared budgets for the 2nd semester of 2014.
- ❖ August 7 – 10, Mr. Widodo and Mr. Waladi traveled to Ujung Kulon to check the RPU UK's boat from WWF donation, see the results of the southern part of JRSCA fencing, also met with Mr. Steven Belcher a photographer who is currently shooting the conservation of the Javan Rhino in Ujung Kulon.
- ❖ August 7 – 10, Mr. Bibhab and Mr. Sectionov as IRF Donor representatives went to Lampung to directly evaluate and coordinate activities with RPU BBS, WK and SRS WK.
- ❖ August 7 – 16, YABI represented RPU Mr. Arief Rubianto received the visits of Mr. Saw Moo Sha BWE of the Wildlife Protection Unit of Thailand, and Mr. Seree of Wildlife Protection Units Myanmar to the BBS and WK NP. The guests had been sharing experiences with RPU, following RPU road patrols, and monitoring rhinos and other wildlife.

- ❖ August 10, Mr. Waladi and Mr. Haerudin attended the National Nature Conservation Day 2014 celebration organized by Ministry of Forestry in Sukabumi Bogor.
- ❖ August 14, Mr. Widodo attended the Halal bi Halal gatherings in TMII Jakarta organized by PKBSI. August 14, Mr. Widodo as Chairman of YABI attended enforcement socialization workshop for TNBBS organized by Lampung Governor. In the same day also discussed with Mr. Timbul Batubara as the new Head of BBS NP about chief of RPU unit's problems.
- ❖ August 14, Mr. Haerudin represents Mr. Widodo to attend of Sumatran rhino conservation strategy meeting for BBS NP, in WWF office Jakarta.
- ❖ August 15, Mr. Widodo attended the invitation from BBS NP to the Halal bi Halal gatherings and the farewell ceremony and hand-over leadership of the BBS NP from Mr. John Kenedy to Mr. Timbul Batubara.
- ❖ August 15, Mr. Widodo attended the invitation from the American Embassy to Halal bi Halal gatherings dinner in Jl. Diponegoro Menteng Jakarta.
- ❖ August 17, Mr. Widodo and Mr. Waladi attended the invitation from WWF Indonesia of the MUI fatwa related to the socialization of animals in Ujung Kulon, in Hotel Mutiara Carita Banten where Mr. Widodo provided a speech on the history and conservation need for the javan rhino.
- ❖ August 18, SRS WK National Park represent Mr. Dedi Candra received the visit of Clare Campbell (Director of ARP), and Susan Jane Hunt, Julie Nicole Moody (CEO of Perth Zoo) to SRS WK NP. The purpose of this visit is to witness Sumatran rhino conservation, especially in the SRS, where the Perth Zoo is one of the Asian Rhino Project donor funds to for SRS activity through the IRF.
- ❖ August 18, Mr. Widodo, Mr. Bibhab, and Mr. Sectionov had the meeting with WWF, WCS, ZSL, LIF, SOS rhino in WCS office Bogor to discuss strategies for Sumatran rhino conservation. The strategy is used to making fund-raising proposals to donors like the TFCA, Disney and KfW. The existence of plans for IMZ and the desire of SOS rhino to create a new SRS.
- ❖ August 19 - 21, Mr. Bibhab and Mr. Sectionov as IRF Donor representatives went to Ujung Kulon to directly evaluate and coordinate RPU UK activities.
- ❖ August 19, Mr. Widodo with participants from WCS, WWF, and ZSL attended the invitation meeting in UK NP office organized by Mr. Bibhab, Chair of IUCN Asian Rhino Specialist Group, and Mr. Sectionov. The meeting is to resolve concern of the javan rhino photo-trap results project by UK NP. The meeting met agreement that javan rhino numbers is between 58 to 61.
- ❖ August 19, YABI represented Mr. Dedi Candra have received the guest from donor;

Rai Seafood Limited and their families (contact person Ms. Rosida Idriss) to SRS WK. The agenda was to discuss about introduction of SRS & RPU Programs, SRS Tour, and others.

- ❖ August 19, Mr. Widodo attended the Halal bi Halal gatherings in PHKA Office Bogor organized by Director General of PHKA Ministry of Forestry, witnessed MoU of IUCN with DG PHKA on setting an office in Indonesia, and discuss cooperation plan between Indonesia with Sabah Wildlife Department Malaysia.
- ❖ August 19, finance staff meeting between Ms. Shanty and Ms. Nienda with Mr. Bibhab and Mr. Sectionov in Bogor office, to discuss about the procurement of a new vehicle for javan rhino conservation programs, 2nd quarter financial report, budget proposals for the months of July to December 2014, and the Veterinariant and HR recruitment.
- ❖ August 20, Mr. Bibhab and Mr. Sectionov visited JRSCA in Ujung Kulon, and seen the southern fencing of JRSCA in Cegog.



- ❖ August 22, YABI held the Halal bi Halal Gathering for all staffs and member of Board of Trustees. The purpose of the event is to further strengthen the relationship and at the same time a farewell ceremony for Mr. Soemarsono who resigned from the Board of Trustees and Mr. Juss Rustandi YABI who resigned from the Board of YABI. The event also attended by new Director KKH of PHKA Ministry of Forestry Mr. Bambang Dahono Adji, Mr. Anwar Purwoto (Director of WWF-IP), YAPEKA staffs, and others.





- ❖ August 23, Mr. Zulfi Arsan starts working as a Veterinair in SRS WK National Park. His status is still probation, will be evaluated after 3 months for a full staff.
- ❖ August 26, Mr. Widodo as a member of Joint Rhino Secretariat had meeting with representatives of the Malaysian government, and BORA Mr. John Payne. The Meeting of the G-to-G (government to government) did not go to the official, because of the Malaysian government was not present. Director General PHKA was represented by Mr. Dr. Sunaryo (Echelon 1).
- ❖ August 28 – 1 September, Mr. Widodo attended invitation meeting in East Kalimantan to discuss on lake Mesangat concern habitat of the *C. siamensis* and *T. Schlegelii*.

September:

- ❖ September 8, YABI represented by Mr. Waladi attended discussion about socialization of development plan for second habitat javan rhino population organized by the Head Unit of Ujung Kulon National Park in UK NP Office..
- ❖ September 15, Mr. Nasrul Ikhrum and Ms. Sari Kustanti start working in Head Quarter Bogor as an Administration & General Staff and Human Resources Officer. Mr. Nasrul had promotion from Administration and finance of the SRS WK NP.
- ❖ September 21, Head Quarter in Bogor held the celebration of 'World Rhino Day' event with a theme 'Selfie for rhinos with pedaling'. Place of the celebration location in Lapangan Sempur Bogor. The event was attended by the Board of



Trustees Mr. Adi Susmianto and Mr. Muhammad Agil, guests from PHKA, and other of YABI's friends.



Celebration of World Rhino Day 2014, implemented with a simple concept but can deliver high impact awareness program for the community. The event is to introduction of species of rhinoceros that are in Indonesia, informed through YABI stand and pedaling (bicycles that have Visual Media).

4 bike links will rotate in the area of activity. In addition to bike links, film screenings rhinoceros, dispenses key chain and stickers to the public who do selfie photoshoot. Also the event providing a blank banner of 9 meters long which will be signed by public who concern about rhino conservation in Indonesia.



To encourage the participation of the community to care for the rhino in Indonesia, photo contest "selfie" will be held with a background of an attractive rhinos picture (two sides). The rhino pictures installed at each of bicycles.



The photo can then be sent to the Indonesian Rhino fanpage: www.facebook.com/BadakIndonesia. People who become participants were given prizes such a key chains and stickers of rhino.

Celebration of 'World Rhino Day 2014' not only held in Head Quarter Bogor but also in the field such as in RPU BBS Lampung and JRSCA/RPU Ujung Kulon.

WORLD RHINO DAY CELEBRATE IN YABI



- ❖ September 22, Mr. Yusep Hardiana starts working in Head Quarter Bogor as a Database Officer. He had promotion from Administration and finance at the RPU UK NP.
- ❖ September 22, YABI purchased 1 unit Toyota Hilux DC 4x4 for Javan Rhino Conservation Program. The vehicle procurement was a donated funds from The Samia Trust through International Rhino Foundation (IRF).



- ❖ September 23 – 24, Mr. Arief Rubianto represent Chairman YABI as a resource person at the National Inception Workshop held at Arya Duta Hotel, Jl. Captain Maulana Lubis No. 8 Medan, North Sumatra, 20112, organized by the UNESCO. The Deputy for Culture, Tourism, Youth and Sports of the Coordinating Ministry for People's Welfare, Dr. Haswan Yunaz as Chairman of the Executive Board of the World Heritage Coordination Commission, facilitate the meeting.. The meeting discussed the theme of "Building the Resilience of Tropical Rain Sumatra for Climate Change Mitigation and Biodiversity" in an effort to lift the status of World Heritage in Danger list of the Tropical Rainforest Heritage of Sumatra (TRHS).using the Data Trends in Population animals Key Species in THRS.
- ❖ September 25 – 26, Mr. Widodo attended the UNESCO worskhop on Efforts and Progress of the Sumatran rhino conservation in TRHS as a resource person. The workshop was held at Hotel Madani, Jl. Singamangaraja / Amaliun No. 1 Medan - North Sumatra.
- ❖ September 30, Human resources and database meeting with all staffs included HQ staffs and field. The team from HQ are Mr. Sectionov, Mr. Titus, Ms. Sari, Mr. Syamsudin and Mr, Yusep who are directly visited the RPU WK, SRS and RPU BBS to represented Boad of YABI. This meeting not only in field but also with Mr. Widodo, Ms. Shanty and Others Staff in HQ with conference call through Skype.

Agenda of the meeting are to discuss about the employee contract for field members, SMART database system, obligations regarding reward /punishment, and discipline of the field staff members.

At this meeting a lot of discussion about the staffing problems in connection with most of the RPU that have been accepted into a civil servant and that will replace it, in addition there are severance issues requested by them. Other problem which was important was to keep the high performance of the RPU during transitions that currently on-going. Mr. Widodo had provided direction and gives an advice to solve the problem.



B. HUMAN RESOURCES:

Reported by Tb. Titus Ramadhani

❖ PERSONNEL

- Sumatran Rhino Sanctuary (SRS):
 - ✓ Ms. Suci Aryani assigned as Finance and Administration to replace the Mr. Nasrul Ikham commencing from July 2014.
 - ✓ New employees: Mr. Zulfi Arsan, DVM (Vet) commencing on August 6, 2014)
 - ✓ Mr. Nasrul Ikham HQ transferred to Bogor as the administrative staff as of 15 September 2014.
- Rhino Protection Unit (RPU) WK:
 - ✓ Ms. Ira Putri assigned as Finance and Administration to replace Mr. Sugondo commencing September 15, 2014.
- Rhino Protection Unit (RPU) BBS:
 - ✓ Mrs. Liana resigned as a cook in RPU BBS as of July 2014
 - ✓ Mrs. Masitoh in trial as a cooke in RPU BBS for 3 months.
 - ✓ Mr. Zen Afrial (RPU members BBS) seconded as Administration and Finance RPU BBS commencing on September 15, 2014.
- Rhino Protection Unit (RPU) UK:
 - ✓ New employees: Mr. Holis (Boat Captain RPU UK) commencing on July 1, 2014.
 - ✓ Mutation : (1) Mr. Samaun from Boat Captain to Assistant Boat Captain (2) Mr. Ely Yuswanto from Assistant Boat Captain to RPU Member.
 - ✓ Mr. Yusep Herdiana assigned as database staff in the HQ as of September 22, 2014.
- Head Quarter:
 - ✓ Mr. Juss Rustandi as Secretary to the Board has stop working in YABI with his own demand since August 1, 2014.



- ✓ New employees: Mrs. Sari Kustanti (HR staff) as of September 15, 2014.

❖ ACTIVITIES



On September 30 until October 3 Head Quarter office conducted a field visit to the Sumatra region.. Joined the team were: Sectionov, M Syamsudin, Titus Ramadhani, Sari Kustanti, Yusep Herdiana and Yanten.

The agenda in this visit was the introduction of new staff in HQ, coaching and direction to employees YABI on contracts and rules to new employees YABI especially prospective members RPU WK and BBS.



Briefing and debriefing also be made directly with the board YABI in Bogor using skype teleconferencing facilities either in Way Kambas and in BBS.

C. FINANCE DIVISION:

Reported by Shanty Maullydianthi and R. Dewi M. Utami

- ❖ On July, 2014: Finance teams have a financial meeting with IRF member Mr. Bibhab Talukdar and Mr. Sectionov to discuss about YABI's budget plan for 2015. Mr. Bibhab informed the availability of funds from SAMIRAT for procurement of vehicles for support of rhino conservation program in Ujung Kulon.
- ❖ YABI accepted donation from The Samia Trust amount of US\$ 38,984.00 on September 22nd, 2014 to purchase 1 unit vehicle for Javan Rhino Conservation Program in Ujung Kulon. YABI has purchased 1 unit Toyota Hilux DC 4x4.



- ❖ Input all finance database from expenditure report from field, Petty Cash Book, and Bank Book transaction using Zahir GL/Accounting Software for periods July – September, 2014
- ❖ YABI received personal donation from Maarten van Strien amount of US\$ 431.99 on July 2nd, 2014.
- ❖ Continuing Donation from RAI Seafood Limited to support SRS-WK Activities amount of \$ 2,400.00 on July 7th, 2014, and amount of \$ 1,185.00 on September 30th, 2014.



D. FUND RAISING

Reported by Haerudin R. Sadjudin

1. FUND RAISING PROGRAM

- ❖ Just two concept papers which sent to KfW for project activities at Bukit Barisan Selatan National Park (Intensive Protection Zone Project) and will be conducted as collaborative program between YABI, WWF and WCS-Indonesia Program. To be continued with preparing concept of Sumatran Rhino Conservation Strategy and Action Plan in Bukit Barisan Selatan National Park.
- ❖ One proposal to Makin Group was already decided to funded for project activities ILEU and SRS facilities at Way Kambas National Park.
- ❖ To prepare a proposal for Whitely Awards 2015 for Education and Awareness Program at Way Kambas National Park, and to continue in preparing a proposal for TFCA-Sumatra Fifth Cycle on thematic program at Way Kambas National Park with YAPEKA as proponent and YABI as member of consortium, with the core activities strengthening conservation education and awareness for rhino concervation at Labuhan Ratu 9 (YAPEKA) and to develop the information centre and ecotourism at the SRS.
- ❖ One proposal already be submitted on 1st October 2014 to TFCA-Sumatera V Cycle. The title: Penyelamatan populasi dan habitat badak sumatera di Bentang Alam TNWK berbasis kepedulian masyarakat.

2. TFCA-SUMATERA PROJECT

- ❖ The new WCS-IP project staffs William Marthy PhD as Project Coordinator and Mutiara Tambunan as Finance Administration has start working since July 4, 2014.. By this we hope there will be no delay any more at the YABI's Consortium TFCA implementations.
- ❖ Monthly finance report for July 2014 and quarterly (May to July 2014) project activities report will be reported to TFCA-Sumatera administrator before 10 July 2014. Because workplan and cashflow was already changed for second year, therefore the funding for 5th quartally (May to July 2014) was not yet received; the addendum of MoU between KEHATI and YABI is still on progress.
- ❖ Second Addendum of MoU between KEHATI and YABI for TFCA-Sumatra Project already be signed on 1st October, 2014. Therefore the 5th grant discharge received only on October 6, while the 6th discharge for activities in September to November 2014 will be received on October 21-24.

E. COMMUNICATION AND INFORMATION:

Reported by Diki Wahyudi

1. Publication of the Indonesian Rhino Conservation on Public Media:

Local Radio Station

YABI represented by Mr. Widodo S. Ramono was phone interviewed by Green Radio (83.2 FM Jakarta) <http://www.greenradio.fm/> regarding the conservation of Rhinoceros in Indonesia on September 23rd 2014.

Broadcast on Mall:

July 3rd 2014: The Rhino Foundation of Indonesia and Lead Signage Advertising collaboration to publishing video duration 30 second in Blok M Square, Jakarta Indonesia. The video provided information concerning existence of the Indonesian rhinoceros to the BMS visitors..



<http://www.badak.or.id/news-facts/read/slide-video-badak-indonesia-di-blok-m-square>

2. Article's and YABI's Website and Social Media

Article's on blogspot <https://yayasanbadakindonesia.blogspot.com/> and YABI's website <https://badak.or.id> from July-September 2014.

1. Badak Harapanku on July 18th 2014 by Marsum BBSNP
2. Indonesian Rhinoceros Slide Video in Blok M Square on July 3rd 2014 by Diky Wahyudi and Sectionov.
3. Safari Ramadan 2014 on July 17th 2014 by Diky Wahyudi
4. Result of Camera Traps in Way Kambas National Park on July 30 2014 by Diky Wahyudi
5. Javan Rhino Study And Conservation Area – Cimokla until Tj Sodong on August 21st 2014 by Diky Wahyudi
6. Happy Birthday Rhino Protection Unit on Sept 01st 2014 by Diky Wahyudi

7. In Memoriam William L. R. Oliver on Sept 15th 2014 by IUCN SSC
8. Celebrate Rhino Day With Pedaling (WRD) on Sept 22nd 2014 by Diky Wahyudi
9. World Rhino Day in Bukit Barisan Selatan National Park on Sept 23rd 2014 by RPU BBS
10. World Rhino Day in Javan Rhino Study Conservation Area – UK NP on Sept 26th 2014 by JRSCA
11. Javan Rhino Study and Conservation Area Information on Sept 25th 2014 by Widodo Ramono

3. Maintains of the YABI's Website

July – September 2014: Maintaining the website www.badak.or.id assisted by Diky Wahyudi as a communication and information staff.

F. PROJECT of Fecal DNA Analysis

Reported by Dadan D. Subrata

July:

1. Preparing/Editing project report for TAGI (Tiger Alive Global Initiative).
2. Preparing project report of DNA Fecal Samples of Javan Rhinoceros.
3. Preparing addendum for extension of agreement between YABI and WWF concerning DNA fecal sample in UKNP.
4. Visit Lab of Eijkman for update of sample process.

August:

1. Updating project report for TAGI (Tiger Alive Global Initiative).
2. Updating project report of DNA Fecal Samples of Javan Rhinoceros.
3. Represent DE in the meeting of the UNEP GEF "Removing Barriers to Invasive Species Management in Production and Protection Forests in SE Asia".

September:

1. Preparing posters for celebrating the WRD 2014.
2. Langkap meeting with WWF Indonesia, IPB and UGM.
3. Updating project report for TAGI (Tiger Alive Global Initiative).
4. Updating project report of DNA Fecal Samples of Javan Rhinoceros.
 - Covering the grids survey was not optimal due to the high rainfall on Occasion 1 and 3, while on Occasion 2 the rain fall is not as high on the Occasion 1 and 3. On the occasion 3, some team members have felt sick during survey and so the target field days was not achieved also and becomes shorter (<10 days).
 - In the northern region of the peninsula of Ujung Kulon, 2 grids survey in Nyiur area (1425D, 1425C) are swamps that could not be achieved during the rainy season.
 - Poor understanding of the technical implementation of the survey also the cause for the low effort or achievement of each survey team to the target grid. Utilization of excess time on some segments due to the many findings of signs of rhino where the survey team spent a lot of time in searching for and collecting rhino feces, causing the time needed to reach other target grid become less.

- The total number of fecal samples collected during the survey is very low that is 49 fecal samples and 2 blood samples were thought to have come from Javan rhino. The high rainfall complicate the survey team to obtain and collect the fecal samples. Rhino feces had been found mostly submerged in the river water, pools and rain puddles. Feces that has been exposed to rain water and submerged in general has lost mucus attached to it when mucus is the most important part to be analyzed because it contains materials contained DNA from rhino.
 - Due to limited number of fecal samples collected (lower than that of total 58 individuals confirmed by video trap) and success percentage of analysis, the Eijkman is aware that it is rather impossible at the moment to conduct reliable population size estimation of the Javan rhino in Ujung Kulon.
 - Rampant offences primarily bird hunting in the Ujung Kulon peninsula need serious treatment. It is feared that bird hunting intensity increases due to the rise of public demand for ornamental birds. This can be seen with the rise of the bird market in almost every big cities and small towns even in rural.
 - The units patrol of the RPU's in which now only consists of 4 units, felt inadequate in number compared to the total area that they should protect for, need additional amount.
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Population survey of javan rhino in Ujung Kulon NP with method spatially – explicit capture mark re-capture and fecal DNA analysis.

Organization involved : UKNP, YABI, WWF, Eijkman Institute, Aaranyak.

Project Duration : January – July 2014

The summary report:

The accurate estimation of wildlife population density especially for Javan rhinoceros is difficult and requires considerable investments of resources and times. Even though a rigorous and non-invasive survey technique has to be developed to monitor populations and develop informed conservation management.

With the advent of DNA technologies, molecular genetic 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, faecal 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 genetic tools can be very robust and can be exploited for studying species distribution, habitat preferences etc.

YABI supported by the Administrative Office of Ujung Kulon National Park (UKNP) and cooperated with the WWF Indonesia and Laboratory Biology Molecular of Eijkman conducted a comprehensive project of field survey to collect fecal (assumed contains DNA) of Javan rhino based on Capture Mark Recaptured method. The objective of the project are: to identify the distribution of rhinos, including a picture of the habitat condition that occupied by rhinos and also identification of factors that determine rhinos to choose the habitat location, description of type and distribution of threats against rhino conservation, especially human activities within the national park, genetic diversity of Javan rhino in UKNP, and kinship relationship of each individual of Javan rhino in UKNP.

The six survey teams contains of RMUs (Rhino Monitoring Units), RPU (Rhino Protection Units), JRSCA and RHU (Rhino Health Unit) conducted 3 phases of field surveys to target areas that is Ujung Kulon peninsula and areas of JRSCA during February to April 2014. Each unit equipped with DNA samples collection equipment such as buffer (DMSO), 50 ml tubes, wooden sticks, hand gloves, etc., and equipments for field survey as well.



Figure 1. The team survey examine a rhino's submerged dung in Cigenter river.

Each team survey took effectively 10 days of surveys in the target areas from start to end point of grid cells. Meanwhile, the target areas were geographically divided into 2 km x 2 km grid cells on the map, so total of 74 grid cells of target areas in peninsula Ujung Kulon and JRSCA area, covering areas of 296 Km².



Figure 2. Many survey areas were submerged during February due to rains.

and hiatus (59). At the grazing area of Cibunar, the team found 36 dung stacks of Javan rhino with different age and a very big size of footprint (29/30) encountered also in this area. In Cigenter, the team seeing directly of individual Javan rhino twice. Probably that there're infant and adult female and couple of adult male and female rhinos inhabit that area. In this occasion, the team had collected 18 tubes of dung samples and a tube sample of blood from Tj. Tereleng, Cigenter, Cikarang and Cibunar.



Figure 3. A part of rhino's dungs encountered in Cibunar grazing area.

upper Cikeusik, Cidaon to Cikeusik. In Seke Cigenter, the team found urine that mixed with blood, and footprints with size 25/26 and 26/27. In east Cikeusik, they found a mucus that mixed with blood.

Phase III, field survey conducted on 11 - 21 April 2014. With the average of kilometer walked for about 2.6 km/day/team, the team surveys covered 68 grids or 91.9% of 74 determined grids target. The continued raining become constraints in this phase and some personnel fell sick during the survey and must be evacuated to the post and as consequence, field days of the survey become less than 10 days.

In this phase, the survey team found signs of rhino such as footprints (35), dung (21), and food (21). The team also found wallows (15) and hiatus (20). The team had

Phase I, field surveys conducted on 3 - 13 February 2014. Unfortunately, the surveys were conducted during the rainy season, so thus inhibit the movement of team. With the average of kilometer walked for about 2.25 km/day/team, the team surveys had covered 58 grids or 78.4% of 74 determined target grids. On the other hand, some grids are swamp areas that cannot be bypassed during the survey. In this phase, the survey team found signs of Javan rhino such as footprints (74), dung (33) and food (52), also wallows (23)

Phase II, field surveys conducted on 4 - 14 March 2014. With the average of kilometer walked for about 2.5 km/day/team, the team surveys had covered 69 grid or 93.2% of determined 74 target grids. In this phase, the team found signs of rhino such as footprints (80), dung (28), urine (1) and food (15). The team also found wallows (20) and hiatus (49). The team had collected 16 dung samples from Karang ranjang, Cibandawoh, Rorah Bogo, Bukit Sadang, Gardu Buruk, Seke Cigenter,

collected 13 tubes of dung samples from Cigenter, east Cikeusik, Cibandawoh, Nyawaan, Bukit Langkap, Cidaon, Cibunar.

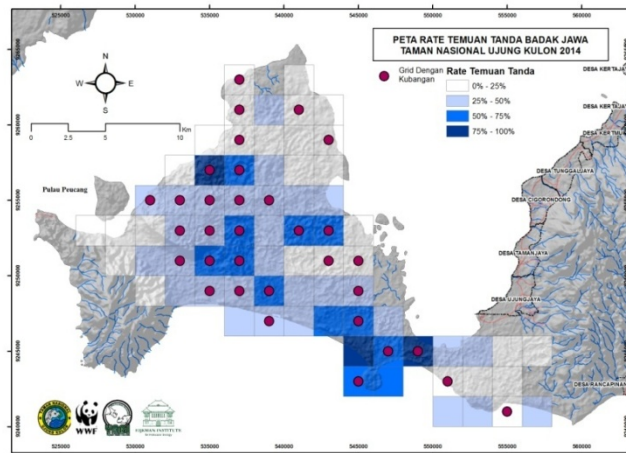


Figure 4. Rhino's signs encountered during surveys.

So, during the field surveys in peninsula Ujung Kulon and part of Mount Honje from February to April 2014, the fecal DNA team surveys had encountered 142 new signs of Javan rhino. Spatially, 95% of target grids occupied by old signs of Javan rhino and 50% of target grids occupied by new signs of Javan rhino.

Fecal DNA Analysis

Forty-nine fecal samples in DETs buffer were collected from three sampling occasions in Ujung Kulon National Park. Samples arrived at Eijkman Institute laboratory by the end of May 2014. With the latest data suggesting the presence of 58 Javan rhino in Ujung Kulon area, the fact that only 49 fecal samples collected should be taken into careful consideration as the final analysis of these samples would be highly underestimation of the current situation in the field.

All samples have been extracted. Genomic DNA was extracted using QIAamp® DNA Stool Mini Kit following modified protocol by Archie *et al.* (2003).

Eighteen microsatellite markers based on Indian and Sumatran rhino sequences were used for Javan rhino individual identification (Appendix 2). Sexing marker ARZF1 designed based on African rhino and targeting both X and Y chromosome fragment in one reaction was used to assess each individual's sex type (Peppin *et al.* 2009). All of the markers were provided by Aaranyak Lab, India.

Amplifications of Javan rhino DNA were carried out in multiplex polymerase chain reaction using QIAGEN Multiplex PCR Master Mix. Microsatellite alleles were scored in GeneMapper®V.4.0 software. PCR amplification was conducted following modified multiple-tube approach in which heterozygote results were confirmed at least twice and homozygote results were confirmed at least three times.

A full profile positive microsatellite results from **38 fecal samples (77.6% success)**, which criteria include peaks height > 1000 RFU, clean fragments with clear and/or

distinguished stutter which is indicator of microsatellite DNA (Appendix 3), and subsequently consistent amplification results between repetitions. From 18 microsatellite markers, **five of them did not produce PCR products: SRIIB, SR54, SR71, SR74, SR191**; suggesting Javan rhinos DNA are not amplifiable on those loci. We can confirm that Javan rhino DNA is amplifiable on the other 13 microsatellite. However, we found that **locus Rh1, Rh3, and IR10 only generated monomorphic allele** across all samples. This suggests that those three markers are not variable therefore **should SR not be used for individual identification.**

Based on genotypes of 38 Javan rhino fecal samples, the lab successfully identified **19 unique Javan rhino individuals**. Due to limited number of fecal samples collected (lower than that of total 58 individuals confirmed by video trap) and success percentage of analysis, the lab is aware that it is rather impossible at the moment to conduct reliable population size estimation of the Javan rhino in Ujung Kulon. The **current data and optimized method serve as standard reference for future study.**

The Lab has obtained final genotype results from 38 samples which belong to 19 Javan rhino individuals. Eleven remaining samples were pending for re-analysis, option includes re-extraction. Further statistical analysis for CMR framework, map plotting for spatial distribution and estimation of age class are ongoing.

Finding Other Animals

During the field surveys, the presence of other animals also recorded since they have occupied the same habitat and interact directly or indirectly with the Javan rhino. These animals are Ajak (*Cuon alpinus javanicus*) where their highly concentrated presences was detected in Karang Rانجاء and Kalejetan, Banteng (*Bos javanicus*) was found in almost every areas of survey but highly concentrated in Karang ranjang, Cidaon, Cikembang, Citelang, Tanjung Alang-Alang, and Nyiur. Meanwhile, Deer (*Muntiacus muntjak*) and Leopard (*Panthera pardus*) also recorded many in Karang Rانجاء and Kalejetan.

Detecting Offences

Illegal activities also recorded during the surveys and these offences were dominated by bird hunting. During February to April 2014, the team surveys had encountered 43 signs of bird hunting in form of abandoned camps, net traps, etc, and most of the higher frequency cases of bird poaching encountered in center to the north of peninsula Ujung Kulon. Other offences also recorded during the surveys but they are encountered in small scale such as timber theft, fishing, mouse deer poaching using traps, encroachment, etc.

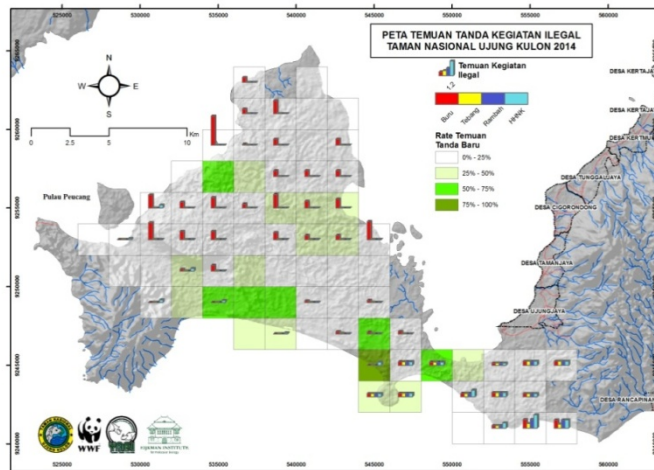


Figure 5. Signs of offences detected during surveys.

Conclusion

Covering the grids survey was not optimal due to the high rainfall on Occasion 1 and 3, while on Occasion 2 the rain fall is not as high on the Occasion 1 and 3. On the occasion 3, some team members have felt sick during survey and so the target field days was not achieved also and **becomes shorter (<10 days).**

In the northern region of the peninsula of Ujung Kulon, 2 grids survey in Nyiur area (1425D, 1425C) are swamps that could not be achieved during the rainy season.

Poor understanding of the technical implementation of the survey also the cause for the low effort or achievement of each survey team to the target grid. Utilization of excess time on some segments due to the many findings of signs of rhino where the survey team spent a lot of time in searching for and collecting rhino feces, causing the time needed to reach other target grid become less.

The total number of fecal samples collected during the survey is very low that is 49 fecal samples and 2 blood samples were thought to have come from Javan rhino. The high rainfall complicate the survey team to obtain and collect the fecal samples. Rhino feces had been found mostly submerged in the river water, pools and rain puddles. Feces that has been exposed to rain water and submerged in general has lost mucus attached to it when mucus is the most important part to be analyzed because it contains materials contained DNA from rhino.

Due to limited number of fecal samples collected (lower than that of total 58 individuals confirmed by video trap) and success percentage of analysis, the Eijkman is aware that it is rather impossible at the moment to conduct reliable population size estimation of the Javan rhino in Ujung Kulon.

Rampant offences primarily bird hunting in the Ujung Kulon peninsula need serious treatment. It is feared that bird hunting intensity increases due to the rise of public demand for ornamental birds. This can be seen with the rise of the bird market in almost every big cities and small towns even in rural.

The units patrol of the RPU in which now only consists of 4 units, felt inadequate in number compared to the total area that they should protect for, need additional amount.

Recommendation:

Training on sampling techniques with a more effective method. It also needs training especially for personnel who responsible for input, processing and analysis of data.

The very low number and bad quality of collected samples due to the high rainfall that fecal samples exposed to the water and submerged. It is necessary to conduct the next surveys at the turn of seasons (the rainy season to the dry season).

Due to the very low number of samples that have been collected, it is expected that the Office of Ujung Kulon National Park will allow for every monitoring activities both RPU and or RMU can perform fecal sampling.

Manage offences seriously, especially bird hunting which more intense due to the increased of public demand for ornamental birds.

The number of RPUs need to be added to safeguard the park against illegal activity.

PATROL PROTECTION OF THE KEY SPECIES IN
THE BUKIT BARISAN SELATAN NATIONAL PARK,LAMPUNG, INDONESIA

Project Duration: January - December 2014

Organization Involved: BBSNP, YABI , WWF Indonesia, WWF TAGI.

The summary report:

The Bukit Barisan Selatan National Park is a home for the key species, Sumatran tiger, Sumatran rhino and Sumatran elephant. These key species enlisted in the Red Data Book of IUCN as a "Critically Endangered" species, a highest level category of threat. These species in their habitat mostly threat by habitat loss and poaching. In fact for Sumatran tiger and Sumatran elephant, they have to dealt with human in a battle of conflict where at the end, the conflict will rise of victims of death not only human but also the wildlife.

To avoid the extinction of three key species in BBSNP, intensive protection in their nature habitat is need to be done and to be a priority, other efforts that not less importantly but they have to be done also are law enforcement, conflict mitigation, awareness and community involvement in conservation efforts of the key species.

Yayasan Badak Indonesia and WWF Indonesia is well aware of this condition and have a common interests in order to save the key species in their habitat, therefore WWF TAGI (Tiger Alliance Global Initiatives) through WWF Indonesia, support the project

titled "Patrol Protection of the Key Species in The Bukit Barisan Selatan National Park" for the duration of a year, through inter-agency coordination, preparation of species and habitat protection strategies, field patrol, intelligence activities, post crime (*bringing up criminal cases into the court*), capacity building / training, conflict mitigation, and awareness and community outreach.

Objective and benefit:

To secure the population of Sumatran tigers, Sumatran rhinos and the Sumatran elephant and its habitat in BBSNP so these three key species can breed well thanks to effective security activities and the support of local community.

The benefits of this activity is increasing protection activities on key species populations and their habitat in BBSNP with the establishment of a more comprehensive security patrols.

Outputs:

1. Work plan developed in the first month.
2. Agreement between YABI and WWF developed and signed.
3. Coordination plan and mechanism developed, agreed and endorsed by relevant stakeholders.
4. Threat analysis conducted and made available for the development of protection strategy.
5. Gap analysis conducted and protection strategy is ready and available.
6. Monthly patrol planning meeting conducted and patrol plan (preferably using SMART software) prepared.
7. Training need assessment conducted at three levels, Training syllabus /modules designed and developed based on existing materials and adjusted with the need in the landscape. The following trainings conducted & report produced: training for patrol team (~8 teams), informants, patrol data management, and law enforcement officers (such as prosecutors, police, judges from ~3 regencies).
8. Field patrols conducted and patrol report that include effort (track log) and findings, documented in patrolling database such as SMART available.
9. Informant mapping conducted, strategic intelligent gap identified, informant identified and recruited, informants in operation in strategic places, and intelligent report managed in a database such as SMART or Intellishare.
10. Team structure of law enforcement and focal points from different organizations identified and deployed to investigate and file cases. The number of cases processed documented.
11. Prosecution of ~5 cases and at least a 50 % increase in successful prosecution of suspects.
12. Education and awareness campaign sessions conducted.

13. Conflict mitigation teams developed and operational in two villages.

Project Implementation

Method

1. Program Planning, Coordination and Evaluation.

- 1) Program planning will be initiated through long-distance communication, maximizing the use of email and teleconference. Direct full day meeting among key parties (WWF-YABI-National Park Agency and other partners such as WCS and possibly TWNC) will be organized in Jakarta/Bogor or Lampung to finalize draft plans, have more in depth discussion on various pressing issues, and reach agreement on the inter-organizational coordination, respective role, and implementation of the plan.
- 2) With assistance from TAGI/enforcement officer, source and level of threats and protection will be assessed for the entire Park as well as, whenever applicable, at the FMU/resort level. This will be conducted through discussion among stakeholders, especially with the national park management.
- 3) Protection gap/need across the Park will be discussed and protection strategy (including the goal, specific targets, approach and general plan and resources needed) developed considering the distribution of key species and the level of threats.

2. Training and Tactical Patrolling.

- 1) Through discussions and meeting among specific teams, the protection strategy will be detailed out into area-specific or time-specific patrol planning.
- 2) First, training needs will be identified through assessment at three levels (field/patrol team; office/patrol data management; and related law enforcement team such as prosecutor-judges to ensure effective law enforcement of cases). Subsequently, training modules developed based on the result of training need assessment. Then, depending on the assessments above, a series of trainings will be conducted for patrol teams and other supporting teams such as intelligent/informer networks, database manager, and law enforcement officers. Subject to be covered might include knowledge and skills needed to perform the patrolling and law enforcement tasks at personal, team, and protected area-levels. At the personal level, for example, each member of patrol team is expected to understand and know how to navigate and survive in the rainforest, including in an emergency situation when limited resource is available. At the team level, training will emphasize the importance of

coordination and collaboration to achieve a common goal. Trainings will consist of class room, and more importantly, practical sessions. Database manager will learn on how to use and operate patrol management software such as SMART and Intellishare, to manage intelligence data.

- 3) At least 7 units of patrol teams are in operation covering priority areas in BBS where rhino/tigers/elephants live. Each team will spend ~20 days in the field per month.
- 4) Database (SMART etc.) management. Day-to-day management of patrol data using SMART and/or other designated databases.
- 5) Patrol evaluation will be conducted monthly to evaluate patrol effectiveness and update patrol strategy. Lead by patrol coordinator, evaluation will involve all patrol team leaders, database managers and related personnel. Patrolling coverage, findings, team condition, constraints and opportunities will be evaluated and discussed.

3. Intelligent

Active operation of intelligent/informant network in key location/issues. Informants will be recruited and operated in strategic areas. Number of informants, the base and mode of operation will be determined during the strategic development.

4. Post Crime

Develop team and deploy staff to areas/issues where focus is needed most. Cross-organizational ad hoc team will be formed with a task to follow up findings from patrol teams or informant networks. The goal is to verify the case and collect evidences necessary for further law enforcement actions such as prosecutions.

5. Awareness & outreach (including park visits etc.)

Conduct awareness campaign sessions to gather and strengthen support for the protection of the park and the wildlife. Activities will be conducted in areas/villages/school believed to have a strategic position. Target audience will be selected based on the potential for long-term and wide impacts. Possible awareness session activities include visit to the park by community leaders, school visits, teacher's training etc.

6. Mitigation of Human-Wildlife Conflict.

Two conflict mitigation teams will be developed/strengthened and trained/upgraded. The teams, based in two villages will focus in mitigating

human-wildlife conflict with focus in those particular villages and the surrounding, with possibility to support, as a network, for the mitigation of conflict in other areas.

Results and Discussion

Program planning have been initiated through long-distance communication, maximizing the use of email and teleconference. In fact, during January 2014 serial meetings have been conducted between WWF and YABI in Bogor so that the Work Plan and Cooperation Agreement between the two successfully completed and signed by both parties.

In February, TAGI enforcement officer assisted in assessing the source and level of threats of the entire BBSNP. All data had been set up and collected from occupancy survey activities and a joint operation against illegal activities with the BBSNP. Somehow, some threats have been addressed directly by the office of BBSNP, including encroachment case in South Bengkulu, poaching and encroachment case in South Sumatra, as well as the case of wildlife poaching and trading in Biha, West Lampung. Eight people have been arrested during the joint operation that was involving the National Park, Police, Bengkulu Province, military, and NGOs.

Development of a protection strategy for Southern Sumatra Landscape which includes objectives, specific targets, and the approach of the general plan and the required resources which are developed based on the deployment of key species and the level of existing threats, as discussed by stakeholders, it's focused on maximizing concept of development of Intensive

Protection Zone (IPZ) in BBSNP region. There are three important components that have been agreed with regard to the concept of IPZ, namely: 1) Patrol, approved using the SMART method, 10 patrol teams, each consisting of 5 people, conduct security patrols to cover the area IPZ; 2) Database using the SMART format; 3) Community Development; 4) Intelligence and law enforcement. The WWF TAGI geared to



Figure 7. BBSNP Office and NGOs during discussion about IPZ.



Figure 6. Mr. Lim Wei Yap during training session at Camp Rhino.

support the database and ranger training.

SMART Training Database for patrol data managers/staff have been carried out on 15 - 19 February 2014 at Camp Rhino BBSNP, Lampung. The training was attended by the database staff of YABI (2), WWF (3), and BBSNP Office (3). The instructor is Mr. Lim Wei Yap of WWF - TAGI.

Law enforcement training for the forest police and law enforcement officer has been carried out on 20 - 26 February 2014 at the Campgrounds, Tanggamus, Lampung. Mr. Rohit Singh and Mr. William from WWF TAGI as the instructor. The training was attended by RPU personnel, WWF Indonesia Lampung, and forest rangers of BBSNP.



Figure 8. Simulation at the field (left) and discussion during the training lead by Mr. Rohit.

Field patrols using SMART method has been carried out by 7 units of RPUs. The patrols that should be conducted to cover the areas of IPZ, could not be achieved optimally since RPU cannot go deep into the forest area of IPZ, especially for the first quarterly. The target of 20 days each month patrol also was not achieved, these occurred due to involvement of the RPU in other activities, such as training, joint operations with other agencies, and others.

During the period from January to June, 41 times field patrols has been conducted by the 7 units of RPU and distances walked by 2043.8 km in 1.253 days of patrol.

Field patrol from January to June, the RPU encounter signs of offences in BBSNP region, namely encroachment (28 locations), logging (4 locations), hunting animals not targeted at Rhino (2) and other disorders such as illegal fishing and bird hunting or illegal fishing (25).

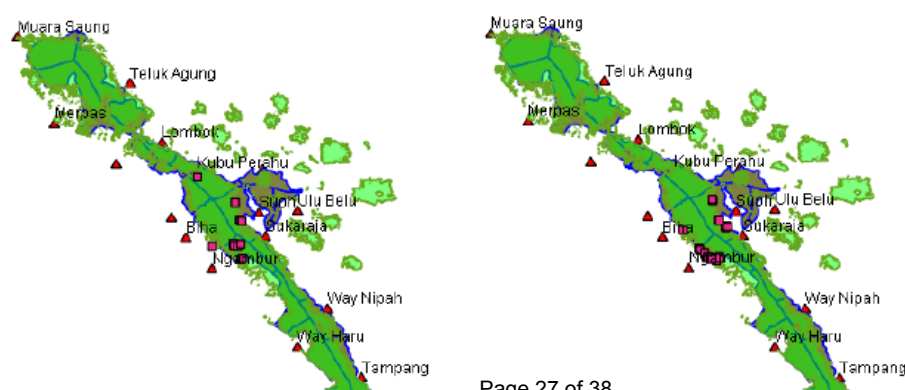
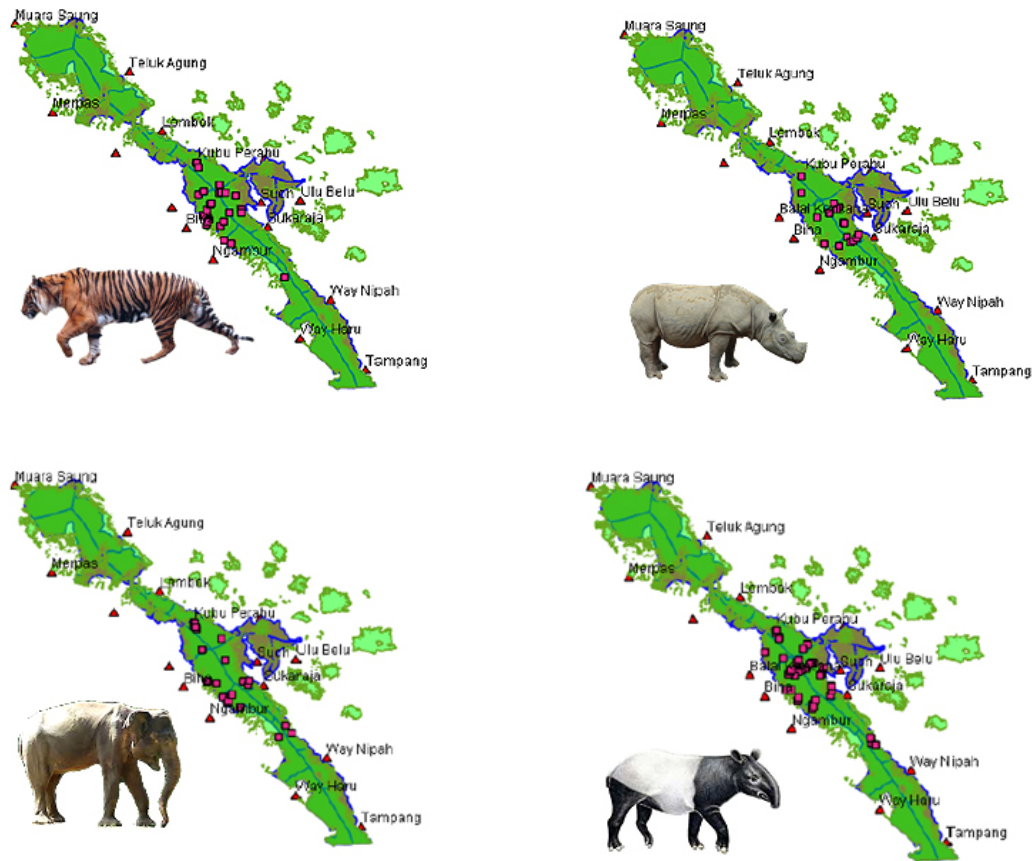


Figure 9. SMART tool produced distribution maps of offences encountered during patrol such as poaching (left) and encroachment (right).

Field patrol from January to June, RPU found 30 locations of **tiger** footprints and a direct sighting; signs of **rhino** such as footprints (6 site locations), dung (1 location), and wallows (18 locations); and signs of **elephant** such as (30 locations), dung (3 locations) and feed (2 locations). Team also found signs of **tapir** as such footprint in 43 locations.

See the figures below.



All fields patrol data input using SMART database software even though it still develop for its improvements, especially in the data models.

In addition to the protection patrols in their habitat, other efforts are also equally important to do, that is intelligence and law enforcement operations aimed to minimize or even eliminate the threats to key species that coming from outside areas such as illicit trade in wildlife and wildlife parts, as the result of the rise of demand for rhino horn, elephant ivory, tiger nails and skin, as well as other parts of the key species. Intelligence operations carried out to assist in the apprehension of poachers and to identify the modus operandi and routes used for the illicit trade for horn, ivory and skins and other body parts of endangered and protected species.

Informant has a very important role in the disclosure of the network of poaching and illegal wildlife trade. Four local peoples had been recruited as informants and deployed in specific areas to uncovered a network of wildlife poaching and trade through

surveillance, investigation and monitoring of wildlife trade. During the period of January to June 2014, intelligence operation has uncovered at least monitored 33 cases of illegal trade, and most of them were trade for tiger skin that sold in small pieces and elephant ivory shell-casings processed into smoking pipes. Intelligence operations have been carried out to cover areas that prone to poaching and illegal wildlife trade, those areas were southern Bengkulu, West Lampung, West Coast, Pringsewu, Pesawaran, Central, East and South Lampung.

Disclosure a syndicate networks wildlife trade should be followed up by law enforcement action against the perpetrators. Enforcement action is intended for cases of poaching and wildlife trade as well as other cases that have an impact either directly or indirectly to the extinction of endangered species, can be taken to court and suspects can be sentenced according by Law No. 5 of 1990.

However, that law enforcement action have to be effective so that the sentence can be imposed for a maximum, therefore it is necessary to increase the understanding and knowledge of practitioners in the field of law official such as prosecutors, judges, police officers and investigators, especially regarding the Law No. 5 of 2009 concerning the Conservation of Natural Living Resources and Its Ecosystems. Therefore, training for 60 police officers, judges, prosecutors and rangers / investigator of Lampung Province has been carried out since December 2013, and then proceed with law enforcement training for law enforcement officers and rangers in February 2014.

Law enforcement joint team consists of staff of BBSNP, Police, and RPU captured wildlife traders of crocodiles and now the case has P21 status, while the perpetrators of the illegal trade of tiger skin was able to escape at the time of arrest and until now become a DPO (wanted list).

Protection patrol alone is not enough to maintain the sustainability of forest ecosystems. Because sometimes hunting and other offences occurred due to ignorance and economic factors of the perpetrators. Therefore, through capacity building and public awareness of the importance of rhino, tiger, and elephant conservation efforts, the concept of building a cadre of conservation is expected to be embedded a sense of belonging that will help maintain and protect the existing ecosystem of damage or extinction.

During period from January to June, the capacity building and public awareness campaigns have been carried out through 8 times visits to schools around BBSNP and output obtained from this awareness activities are the formation of groups of nature lovers, the establishment of a cadre



Figure 10. Awareness activity within a school class.

of conservation that ready to be fostered and empowered, and the commitment of the school to help to preserve the environment.

Another important component of protection activity of the key species is mitigation of human-wildlife conflict, mostly the conflict between humans and Sumatran tigers and elephants. This conflict occur due to a number of negative interactions either directly or indirectly between humans and wildlife. Under certain conditions these conflicts can be detrimental to all parties to the conflict. The losses caused by conflicts generally the destruction of agricultural crops or plantation and livestock predation by wildlife, or even lead to human fatalities. The worst effects of conflict not only the loss of a human or wildlife, but also reduced the human appreciation of wildlife so emerging detrimental effects on conservation efforts.

The mitigation conflict activities carried out in two villages namely Sukamaju, Bengkumat and Tanjung Setia, Kandis Siring Village, Biha. The selection of these two villages because previously there had been conflicts between people and tigers. Conflict mitigation activities focused on improving people's understanding of tiger ecology, early detection of impending conflict and conflict mitigation in group formation for each village as well as the provision of livestock pens anti tiger attack.

Conclusion

Development of a protection strategy for Southern Sumatra Landscape which includes objectives, specific targets, and the approach of the general plan and the required resources which are developed based on the deployment of key species and the level of existing threats, as discussed by stakeholders, it's focused on maximizing concept of development of Intensive Protection Zone (IPZ) in BBSNP region.

The protection patrol should be focused on the area of IPZ BBSNP by operating of 10 units patrol team. Since less number of patrol team so field patrols using SMART method has been carried out by 7 units of RPUs. The patrols that should be conducted to cover the areas of IPZ, could not be achieved optimally since RPU cannot go deep into



Figure 11. Socialization, training of a mitigation conflict and development of a cage of anti tiger attack.

the forest area of IPZ, especially for the first quarterly. These occurred due to involvement of the RPU in other activities, such as training, joint operations with other agencies, and others.

Use the SMART method for database patrol can be applied but still need more improvements, especially the data models.

Mitigating human-wildlife conflict, has just carried out in two villages by formulation of conflict mitigation team in the respective villages, however there is a possibility that this team will mobile and help other villages in case of conflict.

Recommendation:

There's a need to add number of patrol units and develop a patrol system (SOP) in order to safeguard entirely of IPZ areas of BBSNP.

The implementation of mitigation conflict activities has just partially discharged only to the parties directly connected to the conflict other than as a conservation issue, and the conflict also affects the social and economic impact in the area, thus overcoming the conflict between humans and wildlife must involve a variety of stakeholders.

Patrol protection against the key species of the Bukit Barisan Selatan National Park should be extended and sustainable, and should not be stop or halted since a lot of remarkable works has been done in order to save these key species and their habitat.

G. RESEARCH AND EDUCATION

Reported by Sectionov

July:

1. Participants and facilitator on Plan of translocation Javan rhino Workshop in Santika Bogor. There was many institutions attended the meeting that manage by UKNP and WWF Indonesia such as Local government, local NGO and International NGO, academician, expertise and students as well.

Some of the discussions were about whether JRSCA would be the place from where the rhinos will be identified and translocated. The population group was very clear that founder individuals will be taken from known breeders from camera trap data and that would be irrespective of where they are found (whether JRSCA or Peninsula). JRSCA would remain an important component in helping us understand more about Javan rhinos and if appropriate individuals are found, the site from which we will first attempt to capture the founder individuals. An urgent need was to get the discussions moved from talk to action on getting a test kit for hormonal monitoring fast so we have a chance of monitoring individuals via camera trap and reconfirming via hormonal analysis. Further issues such as number of individuals needed etc. has been left for the PHVAs planned in Feb 2015.

2. Preparation on draft protocol visitor and researcher to visit SRS. This protocol to manage SRS visitation for animal viewing and contact.
3. Preparation on draft strategy plan for Sumatran rhino manage by join secretariat rhino and attended several meeting in WCS and Ministry of forestry to discuss about the draft strategy. The consensus is that current efforts implemented by a range of stakeholders to safeguard the Sumatran rhinoceros, are not sufficient to increase the population. A significant scaling up and enhancement of efforts is required, in a wholly coordinated manner between all relevant stakeholders, to bring about the species' recovery.
4. Discussion plan to control arenga palm in Ujung Kulon National park in Faculty of Forestry, Bogor Agriculture University.

August:

1. **Visited SRS and accompany WPU from Thai-Myanmar.**

On visiting SRS and Way kambas NP, we were accompanied of Mr. Moo (Myanmar) and Mr. Flow (Thailand) the member of Wildlife Protection

Unit KESAN (The Karen Environmental & Social Action Network) visited RPU and SRS. Mr Moo and Mr Flow would like learn about Rhino Protection Unit and its activities. It is for strengthening of capacity of WPU on patrol and survey for Sumatran rhino in their area. There is indication small population Sumatran rhino, and perhaps still exist there. Asian Rhino Project (ARP) facilitate of Mr Moo and Mr. Flow visited. They arrived in Jakarta on 7th August and stay overnight at the FM7 hotel. I am and Dr. Bibhab met them at the airport on 8th August and we flew together to Bandar Lampung. We had meeting with RPU Way Kambas at their base camp. Mr. Arief gave ppt. presentations about RPU and what they had been done last year. It is important to inform Mr. Moo and Mr. Flow about what RPU activities. They could learn and getting the new knowledge about Sumatran rhino conservation activities that is being done by RPU. It had been good discussion between them and the RPU.

We visited SRS and had meetings with Dr Dedi and the keeper's as well. Dedi gave presentation about SRS. And then we got opportunity to see Ratu and Andatu in their stall. It is good to show them the Sumatran rhino directly and explained about behavior as well. They were very high enthusiasm in conserving the rhinos during their visit to SRS. Arief and RPU members also taught them in how to make the plaster cast and asked them to practice as well.



Mr. Moo and Flow discuss with Dr Dedi in front of Bina paddock

Mr. Moo and Mr. Flow had a schedule in going to the forest with one unit of RPU for patrol and monitoring. They will be there maximum 4 days and back to RPU Camp and (after) following to that Arief will bring them to visit RPU BBS and doing the same activities (patrol and monitoring) till 17 of August. However, they can compare the different condition of topography on patrol and monitoring, Way kambas with flat topography and BBS with hilly condition. We hope it will be

making them in getting a new experience on patrol and monitoring they learn from RPU during their activities.



How to make plaster cast

2. Meeting on preparing strategy and action plan for Sumatran rhino.

The global population of Sumatran rhinoceros is likely to be approximately 100 individuals, which is significantly fewer than previously thought; the species is perilously close to extinction. The consensus is that current efforts implemented by a range of stakeholders to safeguard the Sumatran rhinoceros, are not sufficient to increase the population. A significant scaling up and enhancement of efforts is required, in a wholly coordinated manner between all relevant stakeholders, to bring about the species' recovery. This strategy draws together all of the key documents developed by the Government of Indonesia and the aforementioned non-governmental organizations, on Sumatran rhinoceros over the past 10 years. The strategy is a continuation and expansion of the Government of Indonesia's 2007-2017 Strategy and Action Plan for the Conservation of Rhinos in Indonesia.

We just had meeting at the WCS and WWF office on presentation each strategy from three National Park (BBS, WK and Leuser). In WWF office, it was discussed and presentation draft on strategy Sumatran rhino in BBS NP. WWF Indonesia take a lead on this process. In the next day at the WCS office we had presentation and discuss about strategy and action plan for Way Kambas and Gunung Leuser NP. I got chance to facilitate discussion at the time and Pak Widodo (YABI) gave presentation strategy for Way Kambas NP and Wulan (WCS) for Gunung Leuser NP and landscape. We also had discussed a bit about IPZ and IMZ. Sarah Brook from WCS Cambodia as international consultant for finalizing this strategy will

compile all strategy from each location and input from discussion and circulate to all stakeholders.

3. Produce one proposal to Care for the Wild International

The name of the project proposal is Creating Suitable Habitat for Critically Endangered Javan Rhinos in West Java through control of invasive Arenga Palm. The total grant more and less USD 10.000 for one year. The proposal has been submitted on 18 August 2014. We wish YABI could get this grant.

4. Meeting on reviewing of result camera video trap UKNP on population javan rhino in 2013

This meeting was initiated by IUCN Asian Rhino Specialist group and IRF. In May 2014, when Ibu Susie, Dr Terri and Kang Bibhab had a meeting with Mr Haryono (Director of UKNP), to discuss on an idea to review of result of camera video trap in 2013 that has been published mentioning the population of javan rhino as 58 individuals. Regarding to IUCN red list website, it is mention that number of population javan rhino, using data on result of census 2009, is between 38-44. However, this data must be update with using the new data published by UKNP in 2013 that mentioned population javan rhino growthed to became 58 individuals. One of condition to updated and change on red list website is to have a review by independent institution. Facilitate by us (IRF), IUCN AsRSG and UKNP, we invited some NGO to attend on reviewing the results of camera video trap performed by UKNP. The meeting was held in Labuan in UKNP office and attend by: YABI, IUCN AsRSG, WWF, ZSL, Alert, University Tirtayasa Banten, WCS, and FFI.



Meeting in Labuan at UKNP office

On discussion that facilitated by us, we found more and less 300 video clips of Javan with unidentified status, and most of reason due to, blurry, too dark and or too fast. Mr. Haryono and team tried to compare the location, time and



month as well and they assumed that out of 300 video clips more or less 3 Javan rhino unidentified. As generally, all institutions that attended on video trap review are satisfied and 'believe' with number that UKNP mentioned and published in 2013. All of participants agreed that the range of Javan rhino population in 2013 is 58-61 individuals. This number will be used to update on red list IUCN website. Kang Bibhab as Chair IUCN AsRSG will bring this result to IUCN to change the number of Javan rhino population on red list IUCN. Nowadays due to broken and stolen, the active camera totals only 78.

5. Visited southern area of JRSCA Ujung Kulon NP.

Recently we visited the southern parts of JRSCA, Ujung Kulon NP. Kang Bibhab, Pak Widodo, Pak Waladi, Indra and one unit RPU and several staff of JRSCA together visited the southern area of JRSCA. Southern area is another location for conduct fencing for project JRSCA. Total fencing in southern area of JRSCA is 2.35 Km. All pillars were carried by people from the last villages in south area UKNP. With the weight of one pillar is more or less 40 Kg and with the distance from last village (village Cegog) is about 9 km, carrying the pillars took 2 or 3 hours walked. We arrived in the evening at Cegog area after facing bad roads, and then continue our walk to the location of fencing area.



Proceed to Southern area JRSCA in Cegog village

The total pillar set up in southern area is 562 pillars and to bring this from Cegog village we used local people. More or less 60 people worked on bringing the pillar from Cegog to location of fencing. Local people involved and support on this project. As generally set up pillar and put fencing already done. However, putting the electricity on the fencing will be conducted soon after receiving the tools (energizer) from Jakarta. YABI need to look for the energizer and ask from

Australia. So far YABI has two energizers and set up in northern area JRSCA for fencing.



JRSCA and RPU staff in the location fencing southern area JRSCA

September:

1. Continued discussion plan to control arenga palm in Ujung Kulon National park with stakeholders (UKNP, WWF, Bogor University and Gajah Mada University)
2. World rhino day in 22nd September 2014 in Bogor.