



Jan-Feb, 2008

Cassava Cultivation around Tesso Nilo, an alternative to handle encroachment

Encroachment in Tesso Nilo forest threatens the forest's biodiversity which will also lead to human-elephant conflict. This complicated problem should be handled comprehensively. In March 2006, WWF Indonesia with support from WWF-NL conducted a scoping mission to seek for options for community economy development in the hope that they can become alternative solutions for the encroachment. The scoping was done by TDI (Turnois Dynamic Innovation), a consultant from the Netherlands.

The scoping mission resulted in some economic alternatives that are possible to be developed, one of which is developing cassava plantation and its starch processing factory. The TDI found out that market for cassava starch is promising as two big paper companies exist in Riau in which they need cassava starch for the paper production.



Ground check for the possible land for the cassava plantation. Photo: WWF-Tesso Nilo Prog.



Possible land for cassava plantation project around Tesso Nilo. Photo: WWF-Tesso Nilo Prog.

As the follow up, the TDI conducted feasibility study beginning on May 2007 to assess the socio-economic feasibility for the development of the cassava project. The socio-economical aspects and the environmental aspects were subject of the study also, as the project aims to provide alternative for handling pressure of illegal logging and encroachment that have been rampant in the national park and its proposed extension. This study also includes socialization of the project plan to related government authorities to get support and input.



Jan-Feb, 2008

Riau Pulp (APRIL) is currently imports starch from Thailand. This company alone uses on a yearly basis about 35.000 ton starches per year (8.000 native and 27.000 modified starches). This is actually a promising market if the value-added cassava products can be produced domestically to meet the industry demand and in another side providing job opportunities for community.



Field visit with the government staffs of Kuantan Singingi district. Photo: WWF-Tesso Nilo Prog.

The feasibility study found out potentials for development of this project among others:

1. The cassava project will provide community with a good and sustainable income as the cassava cultivation is able to generate income for farmers about 5–7 million Rp/ha/year. These farmers will be organized by means of a cooperative that will provide agricultural advice and technical support to its members.
2. Compared to palm oil plantations, which are often seen as the only option for local farmers, cassava has a number of advantages one of them is that it needs lower investment so that the risk for agricultural loan taken by farmers is much less. Besides that cassava is an easy crop to cultivate which can be harvested within 10-11 months old.
3. About 20.000 ha land around Tesso Nilo is available for the cultivation which does not include primary forest and/or high conservation value forest (HCVF). The majority of the land will be community owned land which will enable the villagers around Tesso Nilo National Park to increase their income substantially.
4. This project will be economically feasible for both the cultivation and the processing factory. The calculation shows that the farmers will have a good income and that the factory will be economically feasible with a payback time for the invested money of about 4 years and an internal rate of return of 22%.
5. The cassava project will create many jobs outside the park providing the opportunity for the government to offer an alternative livelihood for the



Jan-Feb, 2008

encroachers who have occupied the national park and its proposed extension outside Tesso Nilo forest. This in some ways makes the government easier to enforce the law against the encroachment.

The feasibility study has recently been finished and all parties have expressed their full support to this project. Currently, final discussions are taking place to define the last details, to organize the farmers and communities, and to commission the starch factory which will be in operation by the end of 2009. Riau Pulp has very high demands for the starch quality therefore a factory with advanced technology will be installed to support this project. Currently, numbers of companies are being consulted as part of the commissioning of the factory.

The land needed for the cultivation has been identified and the legal status needs to be defined by the government. It is planned that the process of the land status can be obtained during first half year of 2008. Therefore the exact locations for the project will be chosen and formalized at this year. The first planting will start in the beginning of 2009 and each month about 400 hectares of land will be planted. Cassava can be harvested after about 10 to 11 months therefore the factory can start to produce cassava during the last months of 2009.

Skill Building for WWF Field Staffs



The participants of the internal training. Photo: WWF-Tesso Nilo Prog.

Sumatran tiger plays an important role for the ecosystem of Sumatran forest. As the flagship species as well as umbrella species that have wide home range, saving tiger means saving others flora and fauna. Unfortunately this species faces extinction. Therefore to avoid the extinction and manage Sumatran tiger population effectively needs accurate data& information related to its ecology, prey and habitat. For that reason WWF has started tiger survey in



Jan-Feb, 2008

the Tesso Nilo- Bukit Tigapuluh landscape since December 2004.

To build the capacity and enhance the skills of the field staffs especially those who involve in the tiger research, from January 23 to 28 WWF conducted related training for the team in Harau Valley, West Sumatra. This training targeted at giving exposure of



In addition to the training, the participants got cliff climbing lesson introduction (above) and visiting zoo (below). Photo: WWF-Tesso Nilo Prog.

related knowledge such as botany zoology, conservation management, remote sensing, land use, research methodology, data management etc to the field staffs. Accurate data and information can only be obtained from well planned survey to define valid research which also needs good data collection management. Through this training the participants received ample related knowledge and practices in the hope for the improvement of their skills. This training also targeted to make collaborative work plan with clear targets and roles among the team members.

The participants were so enthusiastic with the material given though some of the training materials were presented by the participant themselves to share their skills and knowledge. This training also provided the trainees with writing skill given by guest speaker from experienced local journalist. It is realized that the



Jan-Feb, 2008

field staffs have many stories from their field trip which is valuable to be shared, however the stories may be unexplored as the field staffs have limitation on generating the stories. Therefore through this training, it is expected that the tiger team survey can write the story of their field activities.

In addition to the training, the participants were also provided introduction to cliff climbing in the hope that the skills might help when needed during their field survey. The six day training ended with field trip to Bukit Tinggi zoo in order to encourage the team bind and also to have first hand experience with the biology of wildlife especially tiger and elephant.

Tracking Merdeka, the tiger released to the wild



Merdeka when was about to be released to Senepis forest in August 2007. Photo: WWF-Tesso Nilo Prog.

Still remember about the tiger released to Senepis forest block on August last year? Human-tiger conflict occurred in Rokan Hilir District ended with the capture of the tiger by a villager who is believed as the tiger shaman in the village. The tiger was decided to be released to the forest in Senepis block in August 17 and therefore the released tiger was dubbed Merdeka as the

releasing process occurred on Indonesia Independence Day. WWF together with

the PKHS or Sumatran Tiger Conservation Program helped the conservation authority in the technical support.



Jan-Feb, 2008

To monitor the movement of the released tiger, GPS collar was installed to the tiger. Since the releasing date, no signal was detected to be transmitted from the GPS collar. It is believed that the tiger had moved away from the releasing site which may cause the signal undetected as most of the area is out of communication signal coverage. Some assumptions on why the GPS collar does not work came up, among others are the battery had dried up, the collar faced physical function disorder, but these assumptions were denied. The battery could last for two years and the collar was made from high quality materials so that it can resist to weather interference.



Arriving at the survey site. Photo: WWF-Tesso Nilo Prog.

Based on discussion between WWF and PKHS, it is agreed that the two organizations will together conduct ground survey to check the signal of the GPS collar with receiver radio telemetry. Though the GPS collar exist outside the GSM network coverage, the collar still can radiate radio wave that can be detected by the receiver radio telemetry device if the object is within 1-5 kilometer radiant.

The first ground check was conducted from 15 to 18 December, 2007 beginning from Teras River estuarine following the river heading to the site where Merdeka

was released, as the main point of the survey.

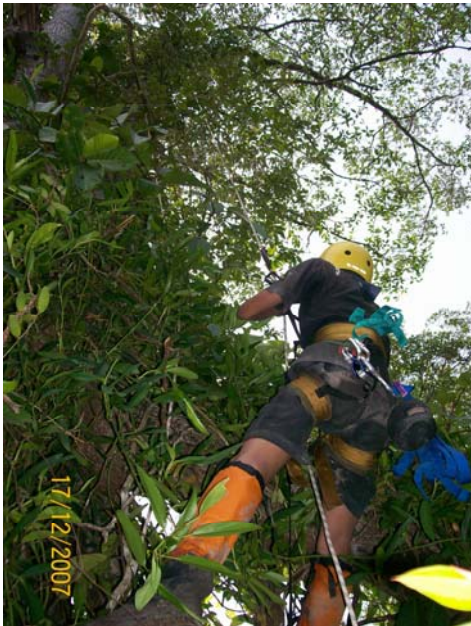
The ground check was conducted in some methods:

1. By boat: this monitoring was done along the river heading to the main point of the survey. The receiver device was put at the top of the boat or about three meters above sea water level.
2. On foot: The surveyors searched the signal while walking around the area or in searching for the highest tree on the ground that makes it possible to conduct monitoring from the height.
3. Tree climbing: this technique was done to get the optimum height for the monitoring in the hope to get clear signal on the receiver device.

During the first ground check, the receiver radio telemetry could receive signals three times though very week.



Jan-Feb, 2008



From February 22 to March 4, the second ground check was conducted still in collaboration between WWF and PKHS. This time, the survey covered area wider than that of in the first survey and still used similar methods with the one used at the previous survey. During the survey, the receiver tool could detect the signal from the collar for four times though still very weak. Anytime the signal received, the team tried to approach the signal direction however the signal seemed to go far from the estimated direction. Though the team still cannot successfully detect the tiger's whereabouts, the detection of the signal on the receiver indicates that the tiger is still alive and healthy enough as it can move from one place to another.



At the last day of the survey the team still wanted to go further tracking the signal following their eagerness however since the tide will subside they had no choice than had to leave the river as soon as possible. The site where Merdeka was released is mangrove swamp forests which rivers are adjoining to sea to therefore the water level of the rivers depend on the rise and fall of the sea wave.



Based on the two times survey, the team came to a conclusion that in order to be able to reach the identified signals as soon as possible need at least two units of receiver radio telemetry.

The methods used to track the signals from the GPS collar installed in Merdeka with the radio telemetry: climbing the highest tree (above), and walking on the ground (below). Photo: WWF-Tesso Nilo Prog.



Jan-Feb, 2008

Joint Patrol in Tesso Nilo National Park

Again Tesso Nilo joint patrol (comprises of Tesso Nilo multi stakeholders) conducted joint patrol in Tesso Nilo National Park since February 18 to 22. During this patrol, the team installed sign boards of related information in Tesso Nilo National Park announcing prohibition to destruct forest. This information board is expected to be a tool to socialize related regulation and information in the hope that people know the existence of the park and the consequence of doing illegal activities inside the forest. This act is not something new as in the previous patrols the team had ever done the same thing. However it is concluded that more sign boards still needed to be installed inside and the park proposed extension area.



Tesso Nilo Patrol Team installed information board inside the park and in the park proposed extension. Photo: WWF-Tesso Nilo Prog.



The land fire perpetrator caught in the act was punished by the patrol team and given warn not to continues his illegal activity in the forest. Photo: WWF-Tesso Nilo Prog.

During the five day patrol, the team found out that some sign boards installed before had been damaged which seem to be done on purpose. For the damaged boards the team substituted with the new ones. The team also found land fire in areas that had been encroached inside the national park as well as the perpetrators. For three land fire perpetrators that were caught in the act were given some warning from the team to stop doing the illegal activity inside the national park. The perpetrators promised to stop their activity.

The joint patrol team continued their patrol to area for the park proposed extension focusing on the encroachment areas along the sides of the two logging corridors



Jan-Feb, 2008

established by APRIL in Tesso Nilo forest. The team found similar problem that some of sign boards that have been installed before had been damaged. Besides that the team found a foundation installed their sign board in the proposed extension promoting that the foundation works for the welfare of community. From the information gathered in the field, this foundation collects money from outsiders to get piece of land in Tesso Nilo forest. With this new finding the team has made some coordination for follow up action.

Naming Ceremony, Birthday Party Thrown for Youngest Members of WWF Elephant Flying Squad

Vice Governor of Riau Dubs Youngest Calf "Tesso"

Tesso Nilo National Park, Sumatra – WWF's Elephant Flying Squad Camp was the site of a big party March 1 in honor of the two calves born there last year. About 80 guests helped Nella celebrate her 1st birthday, while her younger, three-month-old playmate was officially given the name Tesso.

It is a tradition in, Indonesia, to have a naming ceremony ideally done when the baby is under a month old but still can be conducted some months after the birth. For Tesso, the name was bestowed on him by a VIP: the Vice Governor of Riau Province, where the Flying Squad is based.

When Vice Governor Wan Abu Bakar arrived at the Flying Squad Camp, he was greeted at the camp's gate by a welcoming committee of the four adult Flying Squad elephants. Ria, Tesso's mother, came forward bearing a string of flowers that she placed around the Vice Governor's neck.

The Flying Squad – four adult elephants and eight mahouts – patrols an area along the boundary of Tesso Nilo National Park to keep wild elephants from straying outside and getting into conflict with local communities. It also educates communities on non-lethal ways to protect their crops from wild elephants.

In addition to honoring the tradition, the naming ceremony and birthday celebration had a serious conservation purpose. The head of Tesso Nilo National Park noted in a speech the success of the Flying Squad in minimizing human-elephant conflict around the park. The park head called for greater collaboration for effective human-elephant conflict mitigation in the park and for efforts to safeguard the national park. WWF is working to



Jan-Feb, 2008

see the park expanded from 38,000 hectares to 100,000 to ensure enough habitat for a viable elephant population in Riau Province.

The Vice Governor, who also sits on the trustee board of the Provincial Team of Human-Wildlife Conflict Handling, promised to protect the forest in Riau Province that serves as elephant habitat. As shrinking habitat in Riau leads to greater human-elephant conflict, he said he hopes that the newly established Provincial Team will be a success in mitigating human-elephant conflict, just as the Flying Squad has done in Tesso Nilo.

And how do elephants celebrate? With brownies! Following tradition, Vice Governor marked the occasion by feeding the treats (baked especially for the elephants out of corn, palm sugar, mineral and oats) to Ria, Tesso's mother, to mark the naming of her son and to Lisa, Nella's mother, on the occasion of her calf's birthday.

Guests then took turns feeding all four adult Flying Squad elephants. In addition to the two female elephants, the squad has two male elephant members.

Tesso and Nella seemed mostly oblivious to the celebration going on around them, sticking close to their mothers' sides. Tesso was born on 16 November 2007 and Nella was born on 23 February 2007. Both calves were fathered by wild elephants and the pregnancies were welcome surprises to the Flying Squad mahout team. Nella has already begun following along with the Flying Squad on patrol occasionally for fun, but still finds time to play – and squabble – with Tesso on a daily basis.

The Vice Governor and guests were enthusiastic to hear stories about the life of the Flying Squad elephants, all of whom were moved from government-run camps where conflict elephants are kept to work with WWF in 2004. It was a day of the elephant.

The link to photos on this article can be downloaded in CONNECT at:
http://www.panda.org/news_facts/newsroom/index.cfm?uNewsID=126440