

# **Community Involvement to Support Enhancement of Carbon Stock in Rehabilitation Zone of Meru Betiri National Park**

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**ITTO PD 519/08/Rev.1 (F)  
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## **Community Involvement to Support Enhancement of Carbon Stock in Rehabilitation Zone of Meru Betiri National Park**

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## SUMMARY

*An ITTO funded activity PD 519/08 Rev.1 (F): Tropical Forest Conservation For Reducing Emissions From Deforestation And Forest Degradation And Enhancing Carbon Stocks In Meru Betiri National Park, Indonesia, has been applied in Indonesia since 2010 as a demonstration activity in conservation area to support readiness phase of REDD+. Important objective of the project is to gain carbon benefits as much as possible. Therefore, activities are aimed to reduce unplanned deforestation/degradation although from historical data has shown slow rate of deforestation. Other important activities include enhancement of carbon stock as an important option to be implemented in order to enhance sink of carbon. According to zoning system of MBNP, there is rehabilitation zone in MBNP consisting area of about 4.000 ha. This area is possible for sink enhancement through the establishment of agroforestry system, as partnership between community and MBNP. Initial MoU has been signed as the basic regulation of such activities. The concept is cooperation between community and MBNP, where community utilize the land for agricultural or NTFP meanwhile the trees are maintained as conservation and carbon enhancement purposes. Forest rehabilitation or tree planting in forest area of Meru Betiri National Park rehabilitation zone is a way to enhance carbon stock in the context of REDD+. This activity should involve the whole local communities including students. Not only from the REDD+ project, involvement of local communities in forest rehabilitation should also be supported by many stakeholders. This report covers information of community in villages near rehabilitation zone, activity to increase awareness of local community, and development of network to get other partners who are able to support local communities for planting trees*

*Keywords: REDD+ DA MBNP, community planting, community awareness*

# INTRODUCTION

## 1. Background

Community Planting Activity is one of the activities aimed at increasing carbon stocks by planting trees with involvement of community. Based on the analysis of historical data, the rate of deforestation in Meru Betiri National Park has been small, therefore the increase of carbon stocks is an important option to increase the carbon benefits.

Location that is possible to increase carbon stocks is rehabilitation zone of Meru Betiri National Park, covering area of 4000 ha. In the rehabilitation zone, there has been develop agroforestry system as a strategy for rehabilitation, since the year 2000. Rehabilitation activities is a collaboration between the community around MBNP and managers.

Community planting activities in the rehabilitation zone of Meru Betiri National Park is based on Memorandum of understanding (MoU) between farmer groups with managers Meru Betiri National Park signed in October 2011. Thus this event is a collaboration between farmer groups, companion of KAIL and LATIN society, as well as managers of Meru Betiri National Park (MBNP).

## 2. Objectives

- a. Collect information about socio-economic condition of the community and information on rehabilitation activities has been implemented, as well as the seeds need to perform subsequent rehabilitation.
- b. Increase public awareness of the relation between the rehabilitation activities has been implemented with climate change, particularly the enrichment of carbon stocks.
- c. Prepare appreciation scheme for farmers to undertake further rehabilitation.

### **3. Output**

- a. The availability of information about the socio-economic conditions as well as information about the activities that have been carried out rehabilitation and seed need for continued rehabilitation.
- b. Increasing of farmers who commit subsequent rehabilitation.
- c. An appreciation for farmers scheme to undertake further rehabilitation.

### **4. Location**

This activities carryout in rehabilitation zone that has been accessed the farmer from Curahnongko village

# METHODOLOGY

## 1. Collecting Information

### a. Information Collected :

- Information about the condition of land rehabilitation and socio-economic conditions in the Curahnongko village. Curahnongko villages selected for rehabilitation is more advanced than other villages.
- The information collected about the socio-economic conditions and terms of rehabilitation include:
  - ✓ level of public awareness of the rehabilitation program
  - ✓ Resource household
  - ✓ Social capital
  - ✓ Land Resource
  - ✓ Source of income
  - ✓ Perceptions of rehabilitation programs

### b. Collecting Information Methods

- Information about conditions of land rehabilitation collected through an inventory and participatory mapping.
- Information about socio-economic conditions, particularly with regard to rehabilitation, will be collected through surveys / questionnaires.

## 2. Increase Public Awareness Of The Relation Between The Rehabilitation Activities With Climate Change

This activity is a supporting activity and conducted in cooperation LATIN with RECOFTC through Grassroots Capacity Building Activities for REDD+ In and Around Meru Betiri National Park programme. The activities carried out are :

- a. ToT for community and santriwati assistance
- b. FGD

- c. Great recitation
- d. Puppet Show

### **3. Develop Appreciation Scheme For Rehabilitation Activities**

- a. Discussion tiered
- b. Test

### **4. Planting Implementation Of Land Rehabilitation**



# IMPLEMENTATION

## 1. Collecting Information

### a. Information About Land Rehabilitation

Rehabilitation zone that has been accessed by the group of farmers from the Curahnongko village has been mapped and inventoried of type and amount of trees that have been planted. While the Sanenrejo village still being finalized.

Information that has been generated from mapping and inventory activities are:

- i. maps of rehabilitation zone accessed by farmer groups from Curahnongko village, with an area of 410 ha (Appendix 1).
- ii. Map of the boundaries among farmer groups. In Curahnongko Village, there are 17 farmer groups that access rehabilitation zone (Appendix 2).
- iii. Sketch of rehabilitation land managed by each member of farmer groups (Appendix 3).
- iv. List of type and number of plantation that have been planted by farmer groups (Appendix 4).
- v. Summary of the typology of rehabilitation land (Appendix 5).

### b. Information About Socio-Ekonomi Condition And Culture

Data collection on condition of socio-economic and cultural of community through distribution of questionnaires has been completed in the third week of June, for Curahnongko Village, with total respondents of 100 persons, consisting of 70 respondents from farmers of rehabilitation and 30 respondents who are not involved in the rehabilitation program.

## 2. Increase Public Awareness Of The Relation Between The Rehabilitation Activities Has Been Implemented With Climate Change

### a. Tot For Community And Santriwati Assistance

The training is conducted through two stages. The first stage, 20 participants followed the training comes from the companion impoverished communities (Andonrejo village, Curahnongko village, and Sanenrejo village), representative Islamic organizations (Nahdlotul Ulama and Muhammadiyah) and a puppet art activists. Training was held on 3-4 September 2012 at Sulawesi Hotel.



While the second stage, followed 20 participants from ustadzah derived majelis taklim in Andongrejo, Curahnongko, Sanenrejo and Islamic organizations NU and MU. Training conducted on 5-6 September 2013, in Central Curahnongko Village. Training in Sulawesi Hotel is facilitated by Elok and Ani (junior trainees from Education and training center of Forestry assisted by Bu Kusdamayanti and Siregar Pahrian). While the specific issue of Islam and climate change presented by Nurhadi from LATIN.



Figure 2. The Second stage training for ustadzah

#### b. FGD

After the training, the participants from companion community and representatives of Islamic organizations conduct consultations and focus group discussions as a medium to promote and disseminate the understanding and awareness of climate change and its parts (mitigation and adaptation, Greenhouse Gases, REDD +, the role of forests in climate change) acquired during training or acquired through learning together during the process of the activity. Consultation and FGD was conducted once every month held in 5 villages (Andongrejo, Curahnongko, Sanenrejo, Wonoasri and Curahtakir), District Tempurejo. Through this activity as much as 625 people (25 people x 5 x 5 months the village) of stakeholders at village level have gained the understanding and awareness on climate change and REDD+. Those who have been following this consultation and FGD also convey to other people through different forums, such as the forest farmer group meetings, meetings RT / RW, village meetings, study meetings etc. The following is a FGD facilitators in each village.

<b>Curahnongko</b>	<b>Andogrejo</b>	<b>Sanenrejo</b>	<b>Wonoasri</b>	<b>Curahtakir</b>
1. Paikun	1. Sugiri	1. Budiono	1. A. Dahlan	1. Sukowo T
2. Hadi dharma	2. Riyadi	2. Parno	2. Eko hari p	2. Sugito
3. Budi santoso	3. Priyojatkiko	3. Sugiono	3. Suparman	3. Iswanto
4. Sukirman	4. Sutikno	4. Ridwan	4. Asmu'i	4. Slamet L.



Figure 3. FGD facilitated (KAIL) has been trained.

The same is done by the companion communities of men, the ladies majlis taklim involved in training also conduct similar activities are disseminate and improved understanding of the members of the congregation teaching ladies about climate change and REDD+. In this regard, the media used by the ambassadors of climate change (ustadzah involved training 20 people) to disseminate about climate change and REDD+ is through regular lectures are held every week. In a month, a meeting specifically to discuss teaching about climate change and REDD+. But when the discussion about climate change and REDD material at the first meeting is not completed, continued at the next meeting which combined with other materials as agreed. Majlis Taklim was conducted in 3 villages (Andongrejo, Curahnongko, Sanenrejo) with a amount as 20 lectures (10 jama'ah from Andongrejo, 8 jama'ah from Curahnongko and 2 jama'ah Sanenrejo). For 5 months (August 2012 until January 2013), understanding and awareness of climate change and REDD+ has reached approximately 3600 mothers of 3 villages.



Figure 4. FGD women's groups facilitated by ustadzah who has been trained

### c. Great Recitation

Great Recitation was attended by approximately 700 people from 8 villages around TNMB, are Andongrejo, Curahnongko, Sanenrejo, Wonoasri, Curahtakir, Tempurejo, Sidodadi and Pondokrejo. In this Great Recitation, Miss Syahadat one of the trainees of climate change become the speaker to convey information on climate change and REDD+ that had he received the training process. While the main speaker in this Great Recitation is Dr. KH. Abdullah Syamsul Arifin MHI. from Jember. He is the Chief PCNU Jember and Lecturer Graduate STAIN Jember and Adviser Boarding Scool Darul Arifin Bangsalsari, Jember. In his talk he gave high Islam attention to sustainability and management of natural resources. Man as God's representative (khalifatullah) in earth, the main task is prosperity and conserve of the earth. now people experiencing disasters of flooding, landslides and other disasters because of human neglect its primary task as prosperity the earth. Therefore, we are located around of MBNP should to keep its sustainability. Forest as a carbon source is very important to contribute to the climate change we are now experiencing together. Real concern and our role in maintaining and preserving and restoring the damaged region in MBNP will get a reward from Allah SWT. Prophet Muhammad SAW said, when one plant trees and take care of his reward continues to flow along the tree is alive.





Figur 5. Great Recitation as a means of socialization on climate change

#### d. Pertunjukan wayang

Selain melalui pendekatan keagamaan, kampanye perubahan iklim juga dilakukan melalui pendekatan budaya, yakni wayang kulit. Wayang kulit adalah budaya Jawa yang sangat mengakar kuat dan masyarakat sangat mengapresiasinya. Karena itu, penggunaan media wayang kulit sebagai media kampanye perubahan iklim sangat tepat dan mudah diterima oleh masyarakat masyarakat. Pengalaman Sunan Kali Jogo dapat menjadi pelajaran penting, betapa saat beliau menyebarkan agama Islam di tanah Jawa, penggunaan media wayang sangat efektif dan Islam diterima secara damai dan dianut secara sukarela tanpa ada paksaan. Pagelaran wayang kulit ini dilaksanakan pada 21 Oktober 2012, yang dihadiri oleh 1200 pengunjung dari berbagai kalangan, ibu-ibu, anak-anak, tua muda dan juga dari pejabat TN Meru Betiri dan tokoh desa dari 7 desa (Andongrejo, Curahnongko, Sanenrejo, Wonoasri, Sidodadi dan Curahtakir serta Pondokrejo). Dalam kesempatan pagelaran wayang ini juga dilangsungkan peresmian jaringan kelompok tani di Andonrejo yang bernama PERMARTARESI (Persatuan Masyarakat Petani Rehabilitasi) yang dikukuhkan oleh Bpk Ali Purwanto dari TN Meru Betiri. Dengan adanya pengukuhan ini dapat memperbesar sumberdaya untuk mengkampanyekan perubahan iklim ke kelompok-kelompok tani rehabilitasi yang ada di Desa Andongrejo. Yang menjadi dalang dalam pagelaran wayang ini adalah Bpk Sujatmiko, dari Ambulu. Ia adalah salah satu peserta pelatihan perubahan iklim di Hotel Sulawesi Jember. Dengan mengikuti pelatihan ini, sang dalam telah dapat menyajikan alur ceritera yang menekankan pada materi perubahan iklim dan REDD+ di TN Meru Betiri.

In addition to the religious approach, climate change campaign was also carried out through a cultural approach, the shadow puppets. Javanese shadow puppet is a very culturally entrenched and highly appreciate the community. Therefore, the use of shadow puppets media as media campaigns climate change is very precise and easy to be accepted by the community people. Sunan Kali Jogo experience can be an important lesson, how when he spread the religion of Islam in Java, the use of highly effective media puppets and accepted Islam peacefully and voluntarily adopted without any coercion. Leather puppet show was held on October 21, 2012, which was attended by 1200 visitors from all walks of life, mothers, children, young parents and also from Meru Betiri officials and village leaders from 7 villages (Andongrejo, Curahnongko, Sanenrejo, Wonoasri , Sidodadi and Curahtakir and Pondokrejo). In this puppet occasion also held the inauguration of the network of farmer groups in Andonrejo named PERMARTARESI (Union of Farmers Rehabilitation Society) which was inaugurated by Mr. Ali Purwanto of Meru Betiri. With the inauguration of the campaign to increase resources for climate change to farmers' groups in the village rehabilitation Andongrejo. That the mastermind in this puppet show was Mr. Sujatmiko, from Ambulu. He was one of the participants at the climate change Sulawesi Jember. With this training, the inside has been able to present the flow of the story that emphasizes the matter of climate change and REDD + in Meru Betiri.



Gambar 6 Pertunjukan wayang sebagai salah satu cara sosialisasi tentang perubahan iklim

## 1. Mengembangkan skema apresiasi untuk kegiatan rehabilitasi

### a) Diskusi berjenjang:

Diskusi berjenjang adalah rangkaian diskusi yang dimulai dari diskusi dengan pendamping masyarakat, dilanjutkan diskusi dengan ketua kelompok tani, dan diskusi di masing-masing kelompok tani yang dipandu oleh pendamping dan ketua kelompok. Topik diskusi mencakup pentingnya apresiasi kepada para petani yang sudah melakukan kegiatan rehabilitasi dan mendorong petani yang belum optimal melakukan rehabilitasi; tujuan pemberian apresiasi, bentuk-bentuk apresiasi, serta mekanisme pemberian apresiasi.

Hasil diskusi berjenjang adalah sebagai berikut:

- ✓ *Nama :*  
Sistem insentif tsb. diberi nama Program PINTAR (Paket Insentif untuk Petani Rehabilitasi). Gagasan Program PINTAR adalah sbb.:
- ✓ *Tujuan Program:*
  - Mendorong para petani untuk menanam pohon yang bernilai ekonomi sekaligus ekologis di lahan-lahan yang masih termasuk dalam Kelas 1 sampai 4.
  - Memberi apresiasi kepada para petani yang telah berhasil menanam dan merawat atau menjaga tanaman hasil rehabilitasi untuk Kelas 5 dan 6.
- ✓ *Kelompok Sasaran:*
  - 750 orang anggota kelompok tani yang berasal 17 kelompok dari Desa Curahnongko
- ✓ *Bentuk Insentif:*  
Ada 3 bentuk insentif dan apresiasi yang akan diberikan, yaitu:
  - Ekonomi: potongan harga atau diskon untuk membeli sembako di 1200k yang telah ditunjuk dalam Program PINTAR
  - Kesehatan: bantuan untuk keringanan biaya berobat ke Puskesmas Desa Curahnongko
  - Pendidikan: bantuan untuk anak atau cucu dari petani untuk biaya pendidikan atau fasilitasi pendidikan.
- ✓ *Skema Insentif*

Develop an appreciation for the rehabilitation scheme  
a) Discussion tiered:  
Tiered discussion is a series of discussions that began discussions with the community companion, continued discussions with the chairman of the farmers' groups, and discussions in each group were guided by a companion farmer and chairman of the group. Topics of discussion include the



importance of appreciation to the farmers who are doing the rehabilitation and encourage farmers are not optimal rehabilitation; purpose of appreciation, appreciation forms, as well as delivery mechanisms appreciation.

Tiered discussion results are as follows:

} Name:

TSB incentive system. The program called SMART (Package Incentives for Farmers Rehabilitation). SMART program idea is as follows.:

} Program Objectives:

o Encourage farmers to plant trees in the ecological as well as economic value lands that are still included in classes 1 to 4.

o Give appreciation to the farmers who have managed to plant and care for or maintain plant rehabilitation outcomes for Grade 5 and 6.

} Target Group:

o 750 members of farmer groups who are 17 groups of village Curahnongko

} Incentives Form:

There are 3 forms of incentive and appreciation will be given, namely:

o Economic: rebates or discounts to buy groceries in the book that has been designated in the SMART Program

o Health: support for fee waivers went to the village health center Curahnongko

o Education: assistance to children or grandchildren of the farmers for the cost of education or education facilities.

} Incentive Scheme

1.

<b>Tipe/ Kelas Lahan Rehabili tasi</b>	<b>Jumlah Insentif Ekonomi per Bulan</b>	<b>Jumlah Insentif Ekonomi per Tahun</b>	<b>Insentif Kesehatan dan Pendidikan</b>	<b>Total Insentif Per Tahun</b>
6	Rp 30.000,-	Rp 360.000,-	Rp 720.000,-	Rp 1.080.000,-
5	Rp 25.000,-	Rp 300.000,-	Rp 600.000,-	Rp 900.000,-
4	Rp 20.000,-	Rp 240.000,-	Rp 240.000,-	Rp 480.000,-
3	Rp 15.000,-	Rp 180.000,-	Rp 180.000,-	Rp 360.000,-
2	Rp 10.000,-	Rp 120.000,-	0	Rp 120.000,-

1	Rp 5.000,-	Rp 60.000,-	0	Rp 60.000,-
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✓ *Mekanisme Pemberian Insentif*

○ Kelayakan dan prioritas:

Petani rehabilitasi yang layak memperoleh insentif adalah petani yang mengakses lahan di zona rehabilitasi TN Meru Betiri. Lahan tersebut telah dipetakan dan diinventarisir sehingga dapat dikelompokkan menjadi 6 tipe atau 6 kelas, mulai dari Kelas 1 sampai Kelas 6.

Untuk tahap I, Kelas yang mendapat prioritas untuk didahulukan memperoleh insentif adalah petani yang mengolah lahan Kelas 6, yaitu lahan yang telah ditanami oleh berbagai jenis pepohonan sehingga struktur yang dihasilkan mirip dengan struktur hutan alam.

○ Pendaftaran:

Petani yang merasa layak memperoleh insentif harus mendaftarkan diri ke sekretariat Program PINTAR yang dikelola oleh KAIL.

Ketika mendaftar, petani akan diminta untuk:

- Menunjukkan letak atau posisi lahan yang dikelola di peta yang telah ada
- Memberikan informasi tentang jumlah dan jenis tanaman yang sudah ada;
- Memberikan rencana jenis dan jumlah pohon yang akan ditanam

○ Verifikasi

- Verifikasi akan dilakukan oleh sekretariat Program PINTAR terhadap petani yang mendaftar. Hal-hal yang diverifikasi mencakup (a) identitas anggota kelompok; (b) informasi tentang posisi atau letak lahan yang dikelola, (c) informasi tentang jumlah dan jenis tanaman yang sudah ada, serta (d) verifikasi terhadap rencana penanaman
- Verifikasi terhadap identitas anggota kelompok dilakukan dengan memeriksa identitas petani kepada ketua kelompok dan pendamping
- Verifikasi dengan memeriksa kondisi lahan di lapangan dilakukan untuk memeriksa lokasi dan batas lahan yang diakses,

kebenaran jumlah dan jenis tanaman yang sudah ada, serta lokasi atau titik-titik yang akan ditanami pohon

- Pembuatan Kartu PINTAR
  - Setelah verifikasi selesai dilakukan dan hasilnya baik, artinya informasi yang diberikan benar, maka petani akan memperoleh kartu anggota Program PINTAR atau KARTU PINTAR.



Contoh KARTU PINTAR

- Pemberian Insentif

Petani yang sudah memperoleh KARTU PINTAR dapat menggunakannya untuk memperoleh insentif baik ekonomi, kesehatan dan pendidikan, sesuai dengan skema yang digambarkan di atas.
- Monitoring dan Evaluasi

Monitoring dan evaluasi akan dilakukan oleh Sekretariat Program PINTAR. Monitoring akan dilakukan setiap 4 bulan sekali untuk melihat perkembangan kondisi lahan. Indikator monitoring adalah tidak berubah jumlah dan jenis pohon yang sudah ada ketika pendaftaran dilakukan, serta jumlah dan jenis pohon yang ditanam semenjak pendaftaran dilakukan. Hasil monitoring akan menjadi bahan evaluasi akhir tahun untuk menentukan reward dan punishment.

b) Uji coba

Uji coba akan dilakukan kepada kelompok petani yang sudah masuk ke dalam tipe 6, sebanyak 49 orang. Kelompok ini dipilih karena kelompok ini

telah berhasil melakukan penanaman di lahan rehabilitasi hingga mencapai tipe 6, tanpa terlalu banyak mengandalkan bantuan dari pihak luar, dan ini menunjukkan bahwa mereka memiliki motivasi yang tinggi untuk melakukan penanaman di lahan rehabilitasi, sehingga mereka mendapat prioritas pertama untuk mendapat apresiasi dari skema PINTAR.

## 2. Pelaksanaan Penanaman di Lahan Rehabilitasi

Penanaman belum dapat dilaksanakan karena bulan Juni baru masuk musim kemarau. Penanaman direncanakan akan dilakukan awal musim hujan, sekitar bulan Oktober. Namun demikian, pembibitan telah dilakukan, antara lain dengan bantuan dari konsumen 7&I Holding Company, melalui Program Community Planting, yang dituangkan dalam MoU antara 7&I Holding Company, ITTO dan LATIN, dengan bantuan sebanyak 153 bibit. Bantuan bibit tsb. telah diserahkan kepada satu Sekolah Dasar (SD) di Desa Sanenrejo. Untuk itu, siswa SD yang akan melakukan pembibitan atau persemaian, terlebih dahulu mendapat pelatihan dari staf KAIL, yaitu Pak Suparno. Namun pada pelaksanaannya, petani juga melakukan pembibitan secara swadaya. Mereka mencari bibit sendiri di hutan atau di lahan rehabilitasi, dan membuat pembibitan sendiri tanpa bantuan dana dari pihak ketiga. Hasil dari pembibitan yang siap ditanam di lahan rehabilitasi berjumlah 400 bibit dengan jenis joho, alpokat, kemiri, kluwek. Semua bibit rencananya akan di tanam di lahan rehabilitasi secara bersama – sama pada bulan Januari 2013 saat musim hujan masih intensif sehingga memungkinkan tanaman dapat berkembang dengan baik.



**Gambar 2. Pelatihan Pembuatan Bibit Alpukat**



**Gambar 3. Penanaman Bibit Alpukat di Persemaian**

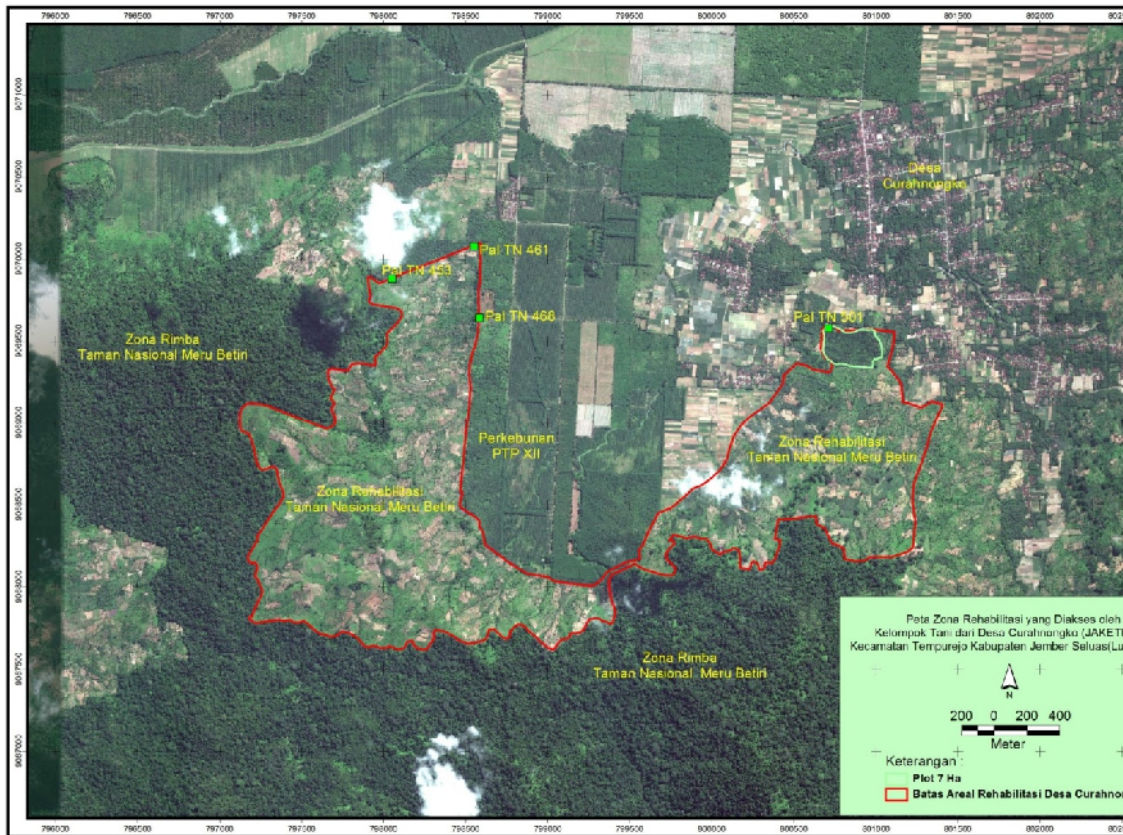
### **RENCANA TINDAK LANJUT**

Kegiatan yang dilakukan terkait dengan pengembangan partisipasi masyarakat dalam REDD+ di TN Meru Betiri melalui dukungan ITTO dan 7&I Holding – Japan, telah selesai dilakukan. Banyak hasil yang telah dicapai, dan banyak pula hasil kegiatan yang perlu dikembangkan. Namun karena dukungan dari ITTO dan 7&I Holding – Japan akan berakhir pada bulan Desember 2013, maka harus dicari strategy phasing out. Oleh karena itu, beberapa kegiatan yang dalam waktu dekat perlu dilakukan adalah:

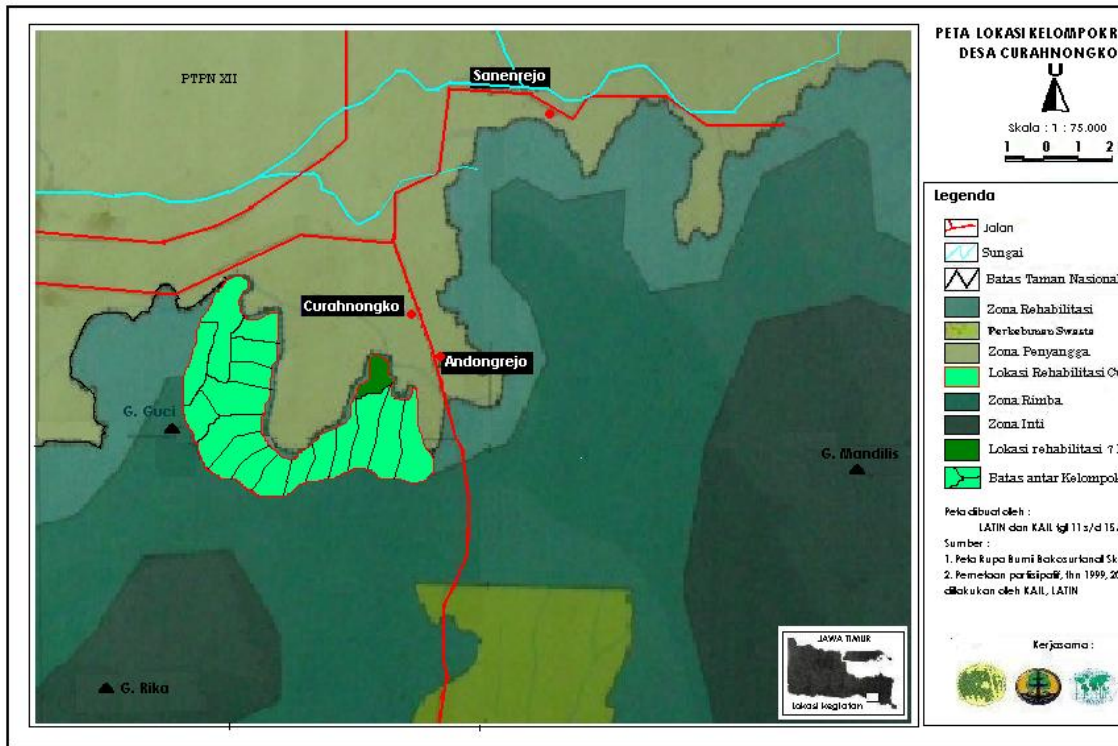
1. Penggalangan dana untuk mendukung skema insentif Program PINTAR
2. Melanjutkan program pendanaan community planting dengan konsumen 7&I Holding Company Jepang
3. Mencari peluang kerjasama dengan lembaga donor maupun perusahaan.



**LAMPIRAN 1.** Peta zona rehabilitasi yang diakses oleh kelompok tani dari Desa Curahnongko, dengan luas mencapai 410 ha

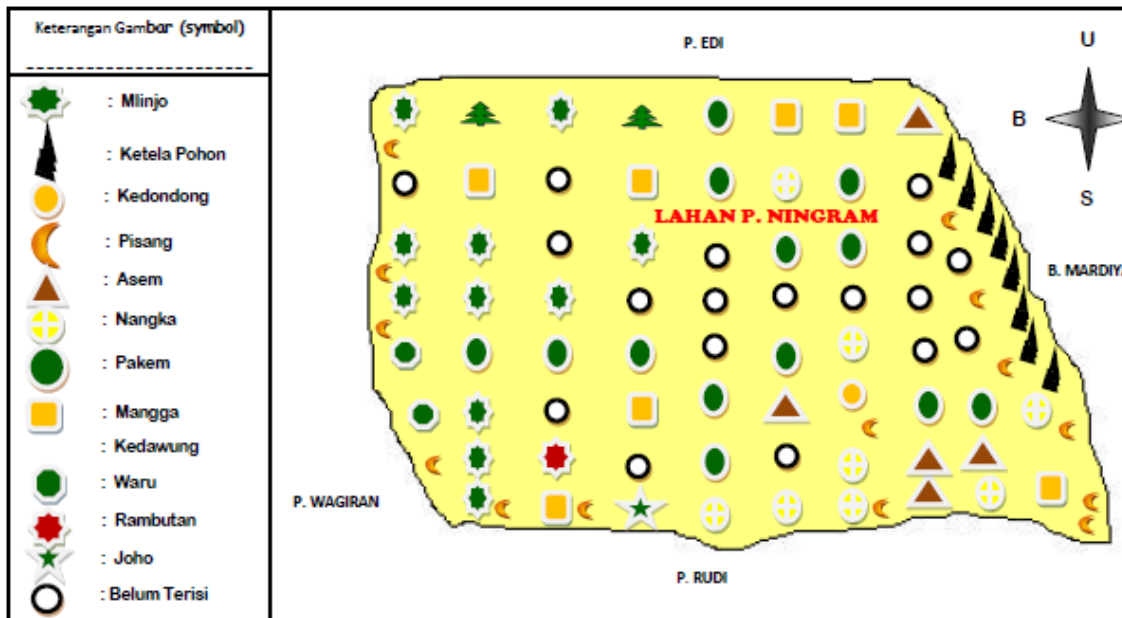


**LAMPIRAN 2.** Peta batas antar kelompok tani di Desa Curahnongko



**LAMPIRAN 3.** Sketsa lahan rehabilitasi yang dikelola oleh setiap anggota kelompok tani (Contoh Lahan Yang Dikelola oleh Pak Ningram)

Denah/Gambar Sketsa lahan Garapan P. Ningram



Keterangan Lahan Garapan \*

Curahnongko.....20....

Batas sebelah Barat : P. Wagiran

Batas sebelah Utara : P. Edi

Batas sebelah Timur :B. Mardiyah

Batas sebelah Selatan :P. Rudi

(Ningram)



**LAMPIRAN 4** Daftar jenis dan jumlah tanaman yang telah ditanam oleh kelompok tani.

NO	NAMA KELOMPOK	TANAMAN POKOK												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		Kedawung	Pete	Rambutan	Nangka	Mangga	Kepuh	Pakem	Kemiri	Dondong	Alpukat	Asem	Mlinjo	Glindungan
1	Kel. P. Setomi (Sido Mulyo)	427	2	1	3	10	4	20			44			
2	Kel. P. Suminah ( Sumber Mulya)	300	72	3	75	32	13	38	39	1	2	92	15	
3	Kel. P. Suwandi (Karya Makmur)	155	290	1	46	14	9	2	5		10			
4	Kel. P. Paikun (Sidoasih)	338	758		136	63	35	53	25		1	23	1	
5	Kel. P. Salam (Seng Lestari)	41	305	1	176	36	1		5		8		1	
6	Kel. P. Poniran (Lestari Alam II)	6	537		97	62		1	2		1	3		
7	Kel. P. Sutris (Kapuran Asri)	171	189		144	46	35	1	3		12	57		
8	Kel. P. Ngatiyar (Kelangenan Jaya)	374	326	1	57	56	49		14	2	40	55	10	
9	kel. P. Kasemin/hamid (mekarsari II)	274	323		102	66	6	2	13			48		
10	Kel P. Gianto (Ragil Putra)	95	300		69	50	15	8				30	7	
11	Kel. P. Paman ( Gumuk Suruh)	442	489	3	323	152	89	3	38	3	117	337	4	
12	Kel. P. Ahmad Yani	398	243		201	70	342	2	32			187		
13	Kel. P. Sugiri (Mekar Sari 1)	167	456	3	145	62	67	1	2		1	3	5	
14	Kel. P. Sugi (Sumber Urip)	235	341	5	123	109	34	1	3	4	12	45	4	
15	Kel. P. Misijan (Ketangi semi)	256	278	4	56	12	53	12	14	2	40	78	3	
16	Kel 7 ha	2440						41	80					
17	Kel. P. Boiran (Tumpak Angin)	342	308		147	78	6	2	13		245	79		
		6461	5217	22	1900	918	758	187	288	12	471	1099	48	2

LAMPIRAN 4. (LANJUTAN)

NO	NAMA KELOMPOK	TANAMAN POKOK																				
		14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
		Jambu Klotok	Jambu Mente	Duren	waru	Joho	kenitu	Sirsat	Kluwih	Pinang	Bindung	Sukun	Tinwo	Gebang	Jeruk	Sriwik until	Jengkol	Pace	Anggrung	Suluhpring	trembesi	Mahoni
1	Kel. P. Setomi (Sido Mulyo)	1			3	7	3	2	7	4												
2	Kel. P. Suminah ( Sumber Mulya)			1	5	1	4	1	3		1	1	1								1	
3	Kel. P. Suwandi (Karya Makmur)		1				2	1	1	1												
4	Kel. P. Paikun (Sidoasih)		4	1	1	2	2	3	1	2		1		5	1	1	1	12	1	1		
5	Kel. P. Salam (Seng Lestari)		1		1		1	7	2	1	14	4	16	3	12	1			7	2		
6	Kel. P. Poniran (Lestari Alam II)	10	9					5														
7	Kel. P. Sutris (Kapuran Asri)		12			1	5					21			2			9	5		1	
8	Kel. P. Ngatiyar (Kelangenan Jaya)		3	12		1	2	1	2	10		1				1		7				
9	kel. P. Kasemin/hamid (mekarsari II)		3															3				
10	Kel P. Gianto (Ragil Putra)	1	7	1	1		1		3	1			1					4				
11	Kel. P. Parman ( Gumuk Suruh)	6	27	2		4	5	2	35	35		11						17			8	
12	Kel. P. Ahmad Yani	9				9		5	7	8					5		2	7				
13	Kel. P. Sugiri (Mekar Sari 1)	10	9	5											3							
14	Kel. P. Sugi (Sumber Urip)		23				1	4							23		1		9	5	1	
15	Kel. P. Misijan (Ketangi semi)		7	12		1	7	1	2	10					1			6				
16	Kel 7 ha																			65		
17	Kel. P. Boiran (Tumpak Angin)		6																		2	
		37	112	34	11	25	29	37	63	72	15	86	18	8	23	4	3	77	18	3	13	

**LAMPIRAN 5. Rekapitulasi tipologi lahan rehabilitasi.**

No	Tipe Lahan	Jumlah lahan
1	Tipe 1	120
2	Tipe 2	75
3	Tipe 3	148
4	Tipe 4	170
5	Tipe 5	188
6	Tipe 6	49
<b>Total lahan</b>		<b>750</b>

## **1. Introduction**

An ITTO funded activity PD 519/08 Rev.1 (F): Tropical Forest Conservation For Reducing Emissions From Deforestation And Forest Degradation And Enhancing Carbon Stocks In Meru Betiri National Park, Indonesia, has been applied in Indonesia since 2010 as a demonstration activity in conservation area to support readiness phase of REDD+.

MBNP has been selected as the site for demonstration activities (DA) of REDD through ITTO project. MBNP as ITTO project for DA REDD would provide information required by international standard related to credible, measurable, reportable and verifiable (MRV) system for monitoring emission reductions from deforestation and forest degradation and enhancement of forest carbon stocks. MBNP is expected to provide lesson learn on how REDD+ activity is conducted in a conservation area.

Important objective as stated in the title of the project is to gain carbon benefits as much as possible. From current analysis of historical data, the deforestation rate was relatively quite low, therefore, enhancement of carbon stock is an important option to be implemented in order to enhance sink of carbon.

Project Design Document has been prepared according to requirement by voluntary carbon standard of VCS. An approved VCS methodology of VM 0015 (avoided unplanned deforestation) would be applied for the project. This methodology includes possibility to enhance carbon stock in areas categorized as forest that would be deforested in business as usual scenario.

According to zoning system of MBNP, there is rehabilitation zone in MBNP consisting area of about 4,000 ha. This area is possible for sink enhancement through the establishment of agroforestry system, as partnership between community and MBNP. Initial MoU has been signed as the basic regulation of such activities. The concept is cooperation between community and MBNP, where community utilize the land for agricultural or NTFP meanwhile the trees are maintained as conservation and carbon enhancement purposes. Involvement of local communities in forest rehabilitation is very important, to support the enhancement of carbon stock in the context of REDD+.

This report covers information of community in villages near rehabilitation zone, activity to increase awareness of local community, and development of network to get other partners who are able to support local communities for planting trees

Kegiatan Community Planting adalah salah satu kegiatan yang ditujukan untuk meningkatkan cadangan karbon melalui penanaman pohon dengan melibatkan masyarakat. Dalam konteks REDD+, kegiatan ini penting dilakukan untuk meningkatkan nilai carbon benefits semaksimal mungkin. Berdasarkan hasil analisis data historis, maka laju deforestasi di Taman Nasional Meru Betiri kecil, sehingga peningkatan cadangan karbon menjadi pilihan yang penting untuk meningkatkan nilai carbon benefit.

Lokasi yang memungkinkan untuk melakukan peningkatan cadangan karbon adalah zona rehabilitasi TN Meru Betiri seluas 4000 ha. Di zona rehabilitasi ini telah dikembangkan model agroforestry sebagai strategi untuk rehabilitasi hutan, sejak tahun 2000. Kegiatan rehabilitasi tsb. merupakan kerjasama antara masyarakat yang tinggal di sekitar TN Meru Betiri dengan pengelola TN Meru Betiri.

Kegiatan community planting di zona rehabilitasi TN Meru Betiri ini dilandasi oleh Memorandum of Understanding (MoU) antara kelompok tani dengan pengelola TN Meru Betiri yang ditanda tangani pada bulan Oktober 2011. Dengan demikian kegiatan ini merupakan kerjasama antara kelompok tani, pendamping masyarakat dari KAIL dan LATIN, serta pengelola TN Meru Betiri.

## 2. Method

Information collected through participatory mapping and tree's inventory in rehabilitation zone and villages of Curahnongko and Sanenrejo village includes:

- Border and area that have been accessed by community, trees (species and number) that have been planted
- Preparation of seedlings
- Types of agro-forestry system

To improve community's participation in rehabilitation zone, the incentive system called "Pintar" or Intensive Program for Rehabilitation Farmers has been applied for farmers of rehabilitation zone. For awareness raising, the

activities have been done through training, discussion, simulation, religion gathering, puppet show and planting.

#### Community empowerment strategy

- Forest rehabilitation through agro-forestry with the community, including students around the area.
- Increased awareness for the public and students about REDD +.
- Develop income generating activity
- Develop networks with other stakeholders to support the community in planting activities, PINTAR Program, conservation business, etc

#### Continuing assistance activities through rehabilitation in Meru Betiri National Park

- History of rehabilitation:
  - 1995: Pilot project of rehabilitation: 7 ha, 43 households, medicinal plants agroforestry
  - 1997 - 1998: the former teak encroachment
  - 1999: an agreement between the national park and LATIN for rehabilitation
  - May 24, 1999: start replication
  - 1999 - Now: mentoring in 5 villages, 106 groups, rehabilitate an area of  $\pm 4023$  ha
- Rehabilitation Assistance through TNMB
  - Mapping agroforestry for managers who came from Curahnongko village
  - Inventory
  - Identify typology agroforest
  - Development of nurseries

Mapping of land managed by a group of Curahnongko village

Mapping include:

- Limit land managed by the group
- Limit land managed by individual farmers

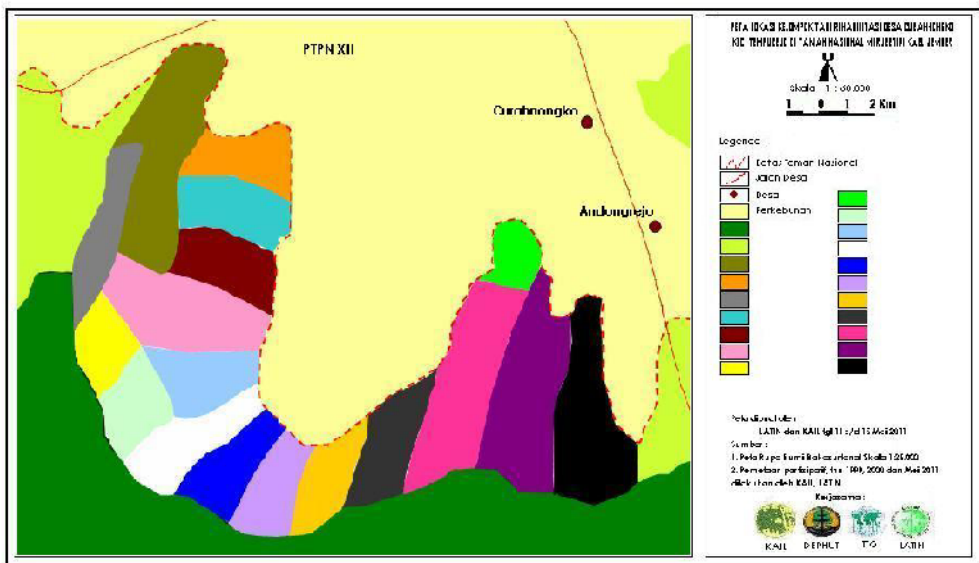
#### **Mapping Stages**



**Mapping stages:**

- Formation a team of mapping
- Agree targets and objectives mapping
- Understand the participatory mapping techniques

- Preparation of the field: a discussion with farmers about the location to be mapped, sketched maps, etc.
- Field data collection
- Analysis of the data
- Verify the results: map
- Print map



### Mapping Result :

Maps of Individual Groups (17 groups) from Curahnongko village in Rehabilitation Zone

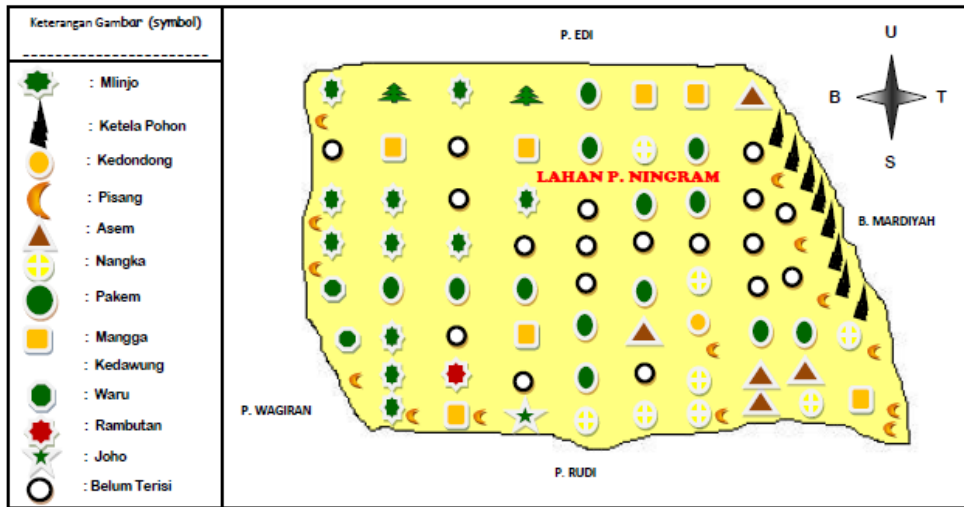
### Inventory

- Identify the type and count of trees or seedlings are planted in agroforestry
- Determine the typology agroforest





Denah/Gambar Sketsa Lahan Garapan P. Ningram



Keterangan Lahan Garapan : Curahnganko.....20....

Batas sebelah Barat : P. Wagiran      Batas sebelah Utara : P. Edi  
 Batas sebelah Timur : B. Mardiyah      Batas sebelah Selatan : P. Rudi (Ningram)

## Examples Of Mapping Results

### KETERANGAN ANGGOTA & KELUARGA KELOMPOK TANI REHABILITASI (SPKP)



No : 01  
 Nama Lengkap : NIDNGRAM  
 Tempat/ Tanggal Lahir : Jember, 12 Mei 1966  
 Alamat : Dusun No. 9  
 No.....Rt 6 /Rw 12  
 Agama : Islam  
 Pekerjaan : Tani

#### I. Jumlah Tanggungan Keluarga : 4 Orang :

No	Nama	Umur	Jenis Kelamin	Pendidikan	Keterangan
1	Wani	35	P	SD	Istri
2	Eko	19	L	SD	Anak I
3	Wanto	12	L	SD	Anak II
4	Nuril	10	L	SD	Anak III

\* L = Laki-laki ; P = Perempuan

#### II. Keterangan Lahan Garapan Di Dalam Hutan :

- a. Nama Kelompok Tani : Sumbar Mulya  
 b. Nama Ketua Kelompok Tani : Suminah  
 c. Nama Lokasi Blok Garapan : Blok No. 9 No Petak.....  
 d. Luas Garapan : 0,26 Ha, Jml satu Garapan

Dengan sesungguhnya saya memberikan keterangan  
 Garahnganko.....20....  
 Mengetahui Ybs

(Eni Ayu A. S.Pd) (Bahrudin) (Suparman) (Ningram)  
 Kap Desa Curahnganko      Ka Resort      Ketua SPKP      Anggota Kelompok Tani

### III. Jenis Tanaman di Lahan Garapan Rehabilitasi :

#### a. Tanaman pokok

No	Jenis tanaman	Jumlah (pohon)	Tanam (tahun)	Keterangan
1	Mlinjo	12	2002	
2	Kedawung	2	1999	
3	Pakem	13	1999	
4	Asem	5	1999	
5	Nangka	8	2002	
6	Mangga	7	2002	
7	Waru	2	2002	
8	Rambutan	1	2002	
9	Joho	1	2002	
10	Kedondong	1	2002	

Total Tanaman yang seharusnya	70 Pohon	100%
Tanaman yang sudah ada	52 Pohon	74%
Tanaman yang belum ada	18 Pohon	26%

Termasuk dalam lahan Tipe IV

#### b. Tanaman Lainnya\*\* (seperti : Pisang, Tanaman Obat) :

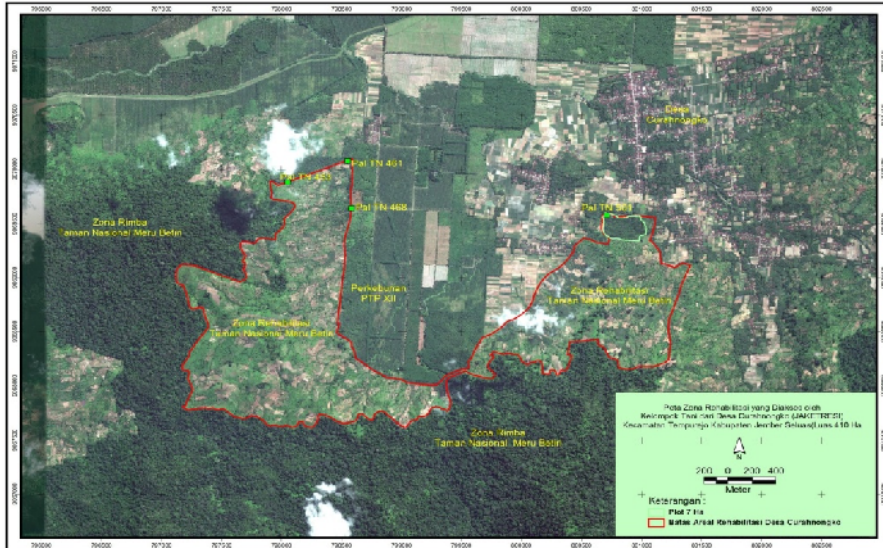
No	Jenis tanaman	Jumlah (pohon)	Umur (tahun)	Keterangan
1	Pisang	15		15 rumpun
2	Ketela pohon	1		1 baris

#### IV. Tanaman Berbagi/ Sharing

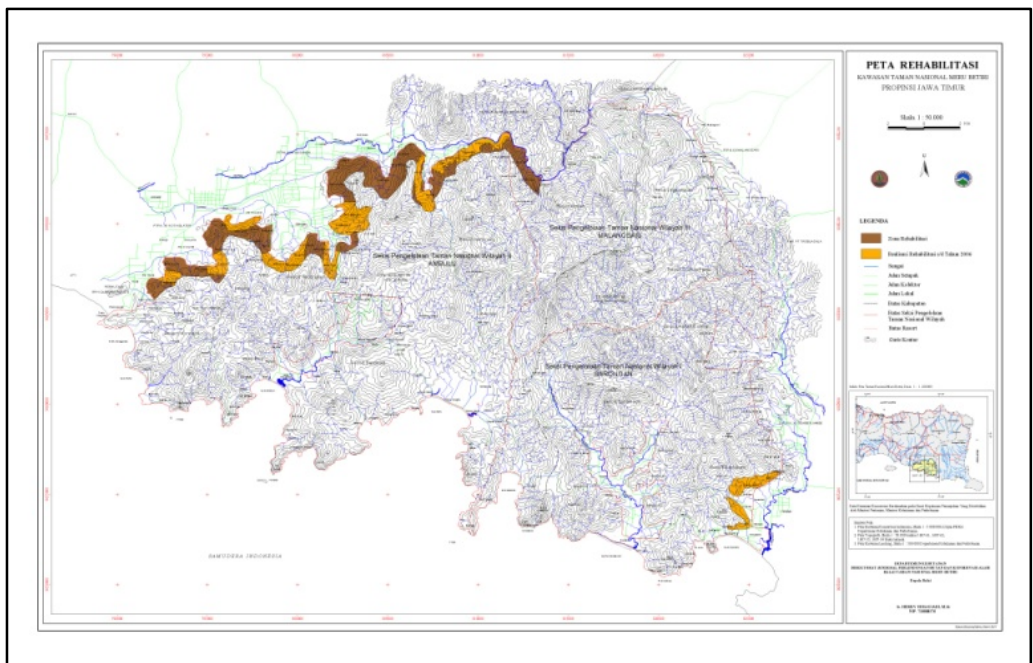
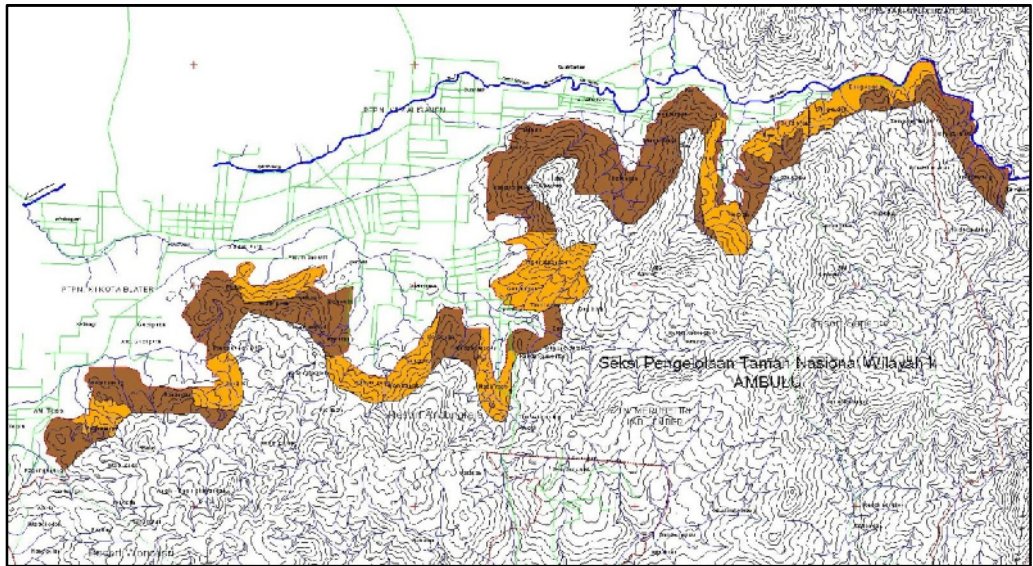
No	Jenis tanaman	Jumlah (pohon)	Umur (tahun)	Keterangan (Nilai Sharing)

### 3. Results and Discussion

Border and area have been accessed by curahnongko farmers (410 ha)







- Area : 4.023 Ha
- Location : District Tempurejo – Jember

## Pesanggaran District - BWI

**Trees in rehabilitation zone have been accessed by Curahnongko farmers (410 ha)**

- Number of species have been planted: 54 species
- Number of trees have been planted: 18,136 trees
- Number of seedlings to be planted: 145,864 seedlings

### Identification of forest rehabilitation typology

No.	Category	Density (trees/ha)	Number of species	Example	Income/year/ha (Rp)
1	No trees, only crops	0	0	Pak Tego	12.630.000
2	A few trees + crops	< 50	< 5	Pak Misto	19.780.000
3	Rather dense + crops	51 - 100	6 to 10	Pak Parman	7.902.000
4	Dense + crops	101-150	11 to 15	Pak Suparsis	6.960.000
5	Dense + empon-empon	151-200	16 to 20	Pak Sirum	30.749.200
6	Dense non crops and non empon-empon	> 200	> 11	Pak Pin	10.440.000

Number of Curahnongko farmers who access rehabilitation zone in MBNP

Typology of Agro-forestry	Number of Farmers
Type 1	120
Type 2	75
Type 3	148
Type 4	170
Type 5	187
Type 6	50
	750

## Incentives Types

- Incentives Scheme for Forest Rehabilitation Farmers (PINTAR = Program Insentif untuk Petani Rehabilitasi)
- Economy : discount price for buying basic needs (rice, sugar, cooking oil, etc.)
- Health : individual small grant for getting health service
- Education : individual small grant for farmer's child or grand child to get better education facilitations and services

## INCENTIVE SCHEME (PINTAR)

Type/ Grade	Amount of economy incentives per month	Amount of economy incentives per year	Other incentives (education and health services)	Total incentives per year
6	Rp 30.000,-	Rp 360.000,-	Rp 720.000,-	Rp 1.080.000,-
5	Rp 25.000,-	Rp 300.000,-	Rp 600.000,-	Rp 900.000,-
4	Rp 20.000,-	Rp 240.000,-	Rp 240.000,-	Rp 480.000,-
3	Rp 15.000,-	Rp 180.000,-	Rp 180.000,-	Rp 360.000,-
2	Rp 10.000,-	Rp 120.000,-	0	Rp 120.000,-
1	Rp 5.000,-	Rp 60.000,-	0	Rp 60.000,-

Type/ Grade	Number of Farmers	Amount of incentives per farmers per year	Total Amount of Incentives per year Needed
6	50	Rp 1.080.000,-	54.000.000,-
5	187	Rp 900.000,-	168.300.000,-
4	170	Rp 480.000,-	81.600.000,-
3	148	Rp 360.000,-	53.280.000,-
2	75	Rp 120.000,-	9.000.000,-
1	120	Rp 60.000,-	7.200.000,-
Total amount of incentives per year needed			373.380.000,-



**Tipe 1**



**Tipe 2**





**Tipe 3**



**Tipe 4**





**Type 5**





**Tipe 6**



**Pengembangan kebun bibit**



- September 2012 : in three villages (Curahnongko, Andongrejo and Sanenrejo) @ 2000 bibit
- Avocado, kedawung, pakem, pete, joho, durian, etc.
- Seedlings will be planted in agro-forest locations that are still vacant, based on the results of the mapping and inventory

### **Sanen Rejo**



### **INCENTIVE SCHEME (PINTAR)**

It has been implemented through pilot project since 10 June 2012:

- 50 farmers -> 6 grade
- Start from Rp 15.000,- per person per month for economy incentives for 1 year scheme
- Work with local shop in Curahnongko village
- Try to use identity card
- Fund have been collected : Rp 9.000.000,- plus USD 500 from individual donatur

### **Exit Strategy**

- Promotion of incentive scheme for forest rehabilitation through mass media and private company
- Fund raising : CSR from private company and person

## KIND OF INCENTIVES

- Economy : discount price for buying basic needs (rice, sugar, cooking oil, etc.)
- Health : individual small grant for getting health service
- Education : individual small grant for farmer's child or grand child to get better education facilitations and services

Type/ Grade	Amount of economy incentives per month	Amount of economy incentives per year	Another incentives (education and health services)	Total incentives per year
6	Rp 30.000,-	Rp 360.000,-	Rp 720.000,-	Rp 1.080.000,-
5	Rp 25.000,-	Rp 300.000,-	Rp 600.000,-	Rp 900.000,-
4	Rp 20.000,-	Rp 240.000,-	Rp 240.000,-	Rp 480.000,-
3	Rp 15.000,-	Rp 180.000,-	Rp 180.000,-	Rp 360.000,-
2	Rp 10.000,-	Rp 120.000,-	0	Rp 120.000,-
1	Rp 5.000,-	Rp 60.000,-	0	Rp 60.000,-

## TOTAL AMOUNT of INCENTIVES PER YEAR NEEDED

Type	Number of Farmers	Amount of incentives per farmers per year	Total Amount of Incentives per year Needed
6	50	1.080.000,-	54.000.000
5	187	900.000,-	168.300.000

<b>4</b>	<b>170</b>	<b>480.000,-</b>	<b>81.600.000</b>
<b>3</b>	<b>148</b>	<b>360.000,-</b>	<b>53.280.000</b>
<b>2</b>	<b>75</b>	<b>120.000,-</b>	<b>9.000.000</b>
<b>1</b>	<b>120</b>	<b>60.000,-</b>	<b>7.200.000</b>
			<b>373.380.000</b>

- **It has been implemented through pilot project since 10 June 2012:**
  - **50 farmers -> 6 grade**
  - **Start from Rp 15.000,- per person per month for economy incentives for 1 year scheme**
  - **Work with local shop in Curahnongko village**
  - **Try to use identity card**
  - **Fund have been collected : Rp 9.000.000,- plus USD 500 from individual donatur**

### **Pengembangan Development of Community-Based Conservation**

- **Product development of land rehabilitation**
  - **Medicinal plants and herbal instant**
  - **Processing jackfruit chips**
  - **Business development of land conservation outcomes of rehabilitation products (bananas, jackfruit, pecans, beef stew, bananas, etc.).**

### **Medicinal Plants**

- **Processing of herbal medicinal plants into an instant: the production is limited because it is done manually, there is help crusher medicinal plants, still needs to be a tool to cultivate herbs instant**

## COMMUNITY PLANTING

- Involvement of local communities in forest rehabilitation through involvement of student is very important.
- Forest rehabilitation or tree planting in forest area (Meru Betiri National Park area) is a way to enhance carbon stock in the context of REDD+
- Local communities who involve in forest rehabilitation need support from many stakeholders, not only from the REDD+ project

### Objectives

- Increasing awareness of local community through involvement of student and other activities
- Carbon stock enhancement through planting various species of trees
- Develop network to get other partner who are able to support local communities for planting trees

### Activities to Increase Awareness



## Training for young people, including young “Dalang”





**Wayang puppet show which is inserted climate change issue**



**Wayang puppet show**



**Launching of Permataresi**



**Training of introduction of climate change impact for women group**



**Group discussion**



**Simulation of GHG effects**

**Pengajian Akbar which is insert climate change issue**





## Activities of Planting Trees















**Activities to Develop Network**

- Partnership with RECOFTC to conduct adaptation study of climate change in Curahnongko village
- Partnership with SOFEDEV and participants of study tour from Cambodia to support Program PINTAR
- Promoting Program Pintar to private company in Jakarta, such as Sampoerna Foundation, Unilever, Koran Tempo, Jarum, Pertamina, etc.