



[Bahasa Inggris] | [Indonesian]

# Evaluation of ITTO PD 519/08 Ref (1) Activities Undertaken in Year 2010

In the first semester, there were 4 activities that have been undertaken, namely: 1) Review existing scheme and lesson learned from the other areas, 2) Stakeholders consultation to identify the most viable scheme to the MBNP, 3) Review the existing methodologies of resources base inventory for carbon accounting, 4) Determine project boundary to facilitate measuring and monitoring of carbon stock change.

## [Evaluasi Kegiatan]

Pada semester pertama, ada 4 empat kegiatan yang telah dilaksanakan, yaitu: 1) Tinjauan skema yang ada dan pembelajaran dari area yang lain, 2) Konsultasi para pihak untuk mengidentifikasi skema yang paling tepat bagi TNMB, 3) Tinjauan metodologi inventarisasi dasar sumber daya yang ada untuk perhitungan karbon, 4) Menentukan batasan kegiatan untuk memfasilitasi pengukuran dan pengawasan perubahan stok karbon.



Figure 1. Awareness raising seminar  
[Gambar 1. Seminar peningkatan kesadaran masyarakat]



Figure 2. Awareness raising seminar  
[Gambar 2. Seminar peningkatan kesadaran masyarakat]

### 1. Review existing scheme and lesson learned from the other area

This activity is addressed to review the existing scheme and lesson learned on how local community engaged in conservation and forest management which provides benefit and balance between the objective of conservation and local communities' need for prosperity as well as lesson learned to engage community in international scheme of REDD+.

Some literatures were carried out from web search, reports and journal, contacted directly the author to clarify the findings as well as the general interview with community and stakeholders involved in selected schemes in MBNP was also undertaken.

### 1. Tinjauan skema yang ada dan pembelajaran dari area yang lain

Kegiatan ini ditujukan untuk meninjau skema yang ada dan pembelajaran tentang bagaimana masyarakat lokal dilibatkan dalam konservasi dan pengelolaan hutan yang memberikan manfaat dan keseimbangan antara tujuan konservasi dan kebutuhan masyarakat lokal untuk kesejahteraan serta pembelajaran untuk melibatkan masyarakat dalam skema REDD+ internasional.

Beberapa literatur didapatkan dari pencarian di internet, laporan dan jurnal, kontak langsung dengan penulis untuk mengklarifikasi penemuan serta wawancara umum dengan masyarakat dan para pihak yang terlibat dalam skema yang dipilih di TNMB juga telah dilaksanakan.



## 2. Stakeholders consultation to identify the most viable scheme to the MBNP

This activity is addressed to improve the community participation in conservation forest management. It was sub-contracted to LATIN (collaborating agency). The objectives of stakeholders consultation consists of reflecting the recent stakeholders' consultation model, exploring alteration occurred, exploring lesson learned of the implementation of developed stakeholders' participation model, and discussing the viable stakeholders' consultation model to be implemented for long term period.

## 3. Review the existing methodologies of resources base inventory for carbon accounting

This review is addressed to review a credible MRV system for monitoring emission reductions from REDD+, review existing approaches and methods to assess and monitor forestry and other natural resources, land use and management practices, develop an MRV approach appropriate for MBNP, and briefly assess the effective institutional system for the MRV.

Steps for MRV in MBNP include determining the boundary, developing baseline, stratifying area, identifying relevant carbon pools and non-CO<sub>2</sub> GHGs, designing the sampling framework, assessing and managing leakage or displacement of activity, and identifying the methods to estimate and monitor including quality assurance and quality control plan.

## 4. Determine project boundary to facilitate measuring and monitoring of carbon stock change

This activity is addressed to facilitate measuring and monitoring of carbon stock change in MBNP. There were 40 PSPs (20 x 100 meter) that have been developed represent each zone of MBNP, namely: 17 PSPs in nucleus zone, 14 PSPs in forest zone, 3 PSPs in rehabilitation zone, 4 PSPs in utilization zone, and 2 PSPs in special utilization zone.

## 2. Konsultasi para pihak untuk mengidentifikasi skema yang paling tepat bagi TNMB

Kegiatan ini ditujukan untuk meningkatkan partisipasi masyarakat dalam pengelolaan hutan konservasi. Kegiatan ini dilaksanakan oleh LATIN (mitra kerjasama). Tujuan konsultasi para pihak terdiri dari merefleksikan model konsultasi para pihak yang dilaksanakan, memeriksa perubahan yang terjadi, memeriksa pembelajaran dari pelaksanaan model partisipasi para pihak yang berkembang dan mendiskusikan model konsultasi para pihak yang tepat untuk dilaksanakan secara jangka panjang.

## 3. Tinjauan metodologi inventarisasi sumberdaya dasar yang ada untuk perhitungan karbon

Tinjauan ini ditujukan untuk meninjau sistem MRV yang dapat dipercaya untuk mengawasi pengurangan emisi dari REDD+, meninjau pendekatan dan metode yang ada untuk menaksir dan mengawasi sumberdaya hutan dan sumberdaya alam lainnya, penggunaan lahan dan praktek pengelolaan, mengembangkan suatu pendekatan MRV yang tepat untuk TNMB, dan menaksir secara singkat sistem kelembagaan yang efektif untuk MRV.

Langkah-langkah untuk MRV di TNMB meliputi penentuan batasan, pengembangan baseline, membagi wilayah, mengidentifikasi kelompok karbon yang relevan dan gas rumah kaca bukan CO<sub>2</sub>, membuat kerangka kerja percontohan, menaksir dan mengelola kebocoran atau pemindahan kegiatan dan mengidentifikasi metode untuk menaksir dan mengawasi mencakup jaminan kualitas dan rencana pengawasan kualitas.

## 4. Menentukan batasan proyek untuk memfasilitasi pengukuran dan pengawasan perubahan karbon stok

Kegiatan ini ditujukan untuk memfasilitasi pengukuran dan pengawasan perubahan stok karbon di TNMB. Ada 40 plot contoh (ukuran 20 x 100 meter) yang telah dikembangkan mewakili masing-masing zona di TNMB, yaitu 17 plot contoh pada zona inti, 14 plot contoh pada zona rimba, 3 plot contoh pada zona rehabilitasi, dan 2 plot contoh pada zona pemanfaatan.

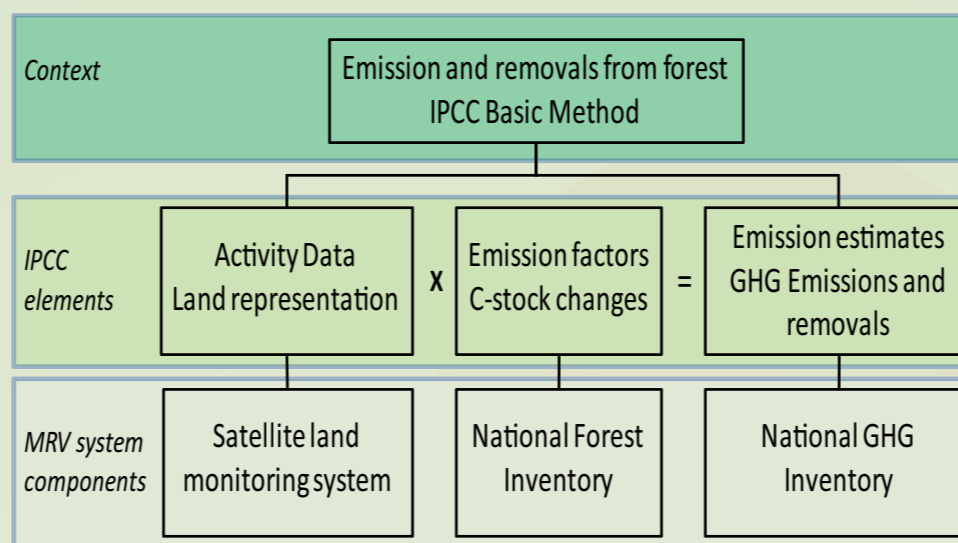


Figure 3. Relationship between IPCC elements and MRV components (Girardin, 2010)  
[Gambar 3. Hubungan antara unsur IPCC dan komponen MRV (Girardin, 2010)]

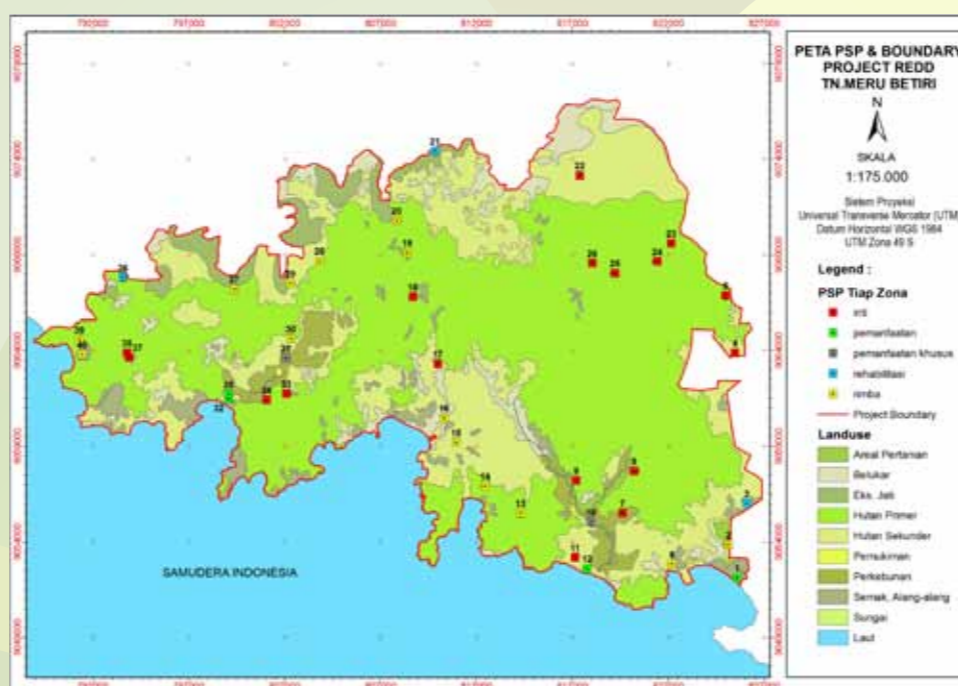


Figure 4. Boundary project map  
[Gambar 4. Peta batasan kegiatan]



Figure 5. Tree planting on Rehabilitation zone  
[Gambar 5. Penanaman pohon di zona rehabilitasi]



Figure 6. Dialogue with communities during field visit  
[Gambar 6. Dialog dengan masyarakat selama kunjungan lapangan]

In the middle of the year, representative of 7&i company, Ms. Chiharu Akatsuka and representative of ITTO, Dr. Hwan Ok Ma accompany with professional photographer Mr. Tj Bruder undertaken field visit to MBNP. The visit intended to understand in more detail situation and condition in the field for carbon and biodiversity conservation. At 4<sup>th</sup> June 2010, PSC meeting was undertaken to monitor the project implementation. It is addressed to provide basis for corrective actions and enhancing performance of the project.

In the second semester, 6 (six) activities have been undertaken, namely: 1) Establish partnership for conservation MBNP, 2) Conduct awareness raising programmes, 3) Conduct training for community leaders, police and other local government staff on MBNP protection, 4) Develop standard operation procedures for field measurements, 5) Organize and conduct training workshop on carbon accounting for related stakeholders, 6) Conduct remote sensing analysis.

## 5. Establish partnership for conservation of MBNP

This activity is addressed to establish multi-stakeholders mutual partnership to manage MBNP, reducing carbon emission and enhancing carbon stock, facilitating on developing partnership forum and arranging partnership programme of MBNP, and facilitating on making MoU.

## 6. Conduct awareness raising programme

Awareness raising programme is addressed to reduce illegal logging and land encroachment through awareness raising on the importance of maintaining ecosystem function. Awareness raising seminar has been undertaken for related stakeholders and communities. This activity was undertaken at 26<sup>th</sup> October 2010 collaborating with Forestry Official of Jember and attended by 85 participants including Forestry official staff of Jember and Banyuwangi, NGO, Perhutani, and communities' leader.

Pada pertengahan tahun, perwakilan perusahaan 7&i, Ms. Chiharu Akatsuka dan perwakilan ITTO, Dr. Hwan Ok Ma ditemani oleh potografer profesional Mr. Tj Bruder melakukan kunjungan lapangan ke TNMB. Kunjungan dimaksudkan untuk memahami lebih rinci situasi dan kondisi di lapangan untuk karbon dan konservasi biodiversity. Pada tanggal 4 Juni 2010, pertemuan PSC dilaksanakan untuk mengawasi pelaksanaan proyek. Kegiatan ini ditujukan untuk memberikan dasar bagi kegiatan perbaikan dan meningkatkan kinerja dari proyek.

Pada semester kedua, 6 (enam) kegiatan telah dilaksanakan, yaitu: 1) Membangun kerjasama untuk konservasi TNMB, 2) Melaksanakan program peningkatan kesadaran, 3) Melaksanakan pelatihan bagi tokoh masyarakat, polisi dan staf pemerintah lokal dalam perlindungan TNMB, 4) Mengembangkan SOP untuk pengukuran lapangan, 5) Mengatur dan melaksanakan pelatihan dan lokakarya tentang pengukuran karbon bagi para pihak terkait, 6) Melaksanakan analisis GIS.

## 5. Membangun kerjasama untuk konservasi TNMB

Kegiatan ini ditujukan untuk membangun kerjasama yang saling menguntungkan bagi para pihak untuk mengelola TNMB, mengurangi emisi dan meningkatkan stok karbon, memfasilitasi pembangunan forum kerjasama dan menyusun program kerjasama dari TNMB, dan memfasilitasi pembuatan MoU.

## 6. Melaksanakan program peningkatan kesadaran

Kegiatan peningkatan kesadaran ditujukan untuk mengurangi illegal logging dan penyerobotan lahan serta peningkatan kesadaran tentang pentingnya pemeliharaan fungsi ekosistem. Seminar peningkatan kesadaran telah dilaksanakan bagi para pihak terkait dan masyarakat. Kegiatan ini dilaksanakan pada tanggal 26 Oktober 2010 bekerjasama dengan Dinas Kehutanan Jember dan diikuti oleh 85 peserta yang meliputi staf Dinas Kehutanan Jember dan Banyuwangi, LSM, Perhutani, dan tokoh masyarakat.



## 7. Conduct training for community leaders, police and other local government staff on MBNP protection

This training has been undertaken at 10<sup>th</sup> – 11<sup>th</sup> November 2010. The trainees were trained how to protect MBNP from the threat and destruction by giving them knowledge and skills i.e., investigation technique, forestry information technique, fauna protection, management and policy of MBNP, etc.

## 8. Develop standard operation procedures for field measurements

SOPs can be seen as an integral part of a quality system as it provides information to do a series of job properly, and facilitates the consistency of quality and integrity of a product from the beginning to the result. The use of SOPs in the field measurement makes the job more effective and efficient.

Main purpose of a sampling design in this project is to monitor and evaluate forest carbon biomass precisely based on its characteristics. The sampling design is necessary for data collection activities, especially if it conducted on a wide area and has varies characteristics. In order to find the appropriate data collection that can reflect the overall condition of the observed area, the location of sample design and data collection techniques should be selected appropriately and wisely.

The stratified sampling design is used due to the zonation of Meru Betiri National Park and type of its vegetation. Stratified sampling design is developed by using the following steps, namely: 1) Review the systematic planning outputs, 2) Develop sampling design, and 3) Determine the sample size that satisfies the performance criteria and constraints.

## 9. Organize and conduct training workshop on carbon accounting for related stakeholders

Training on carbon accounting has been undertaken collaborating with Brawijaya University. This activity was undertaken on two phases, first phase was undertaken at 29<sup>th</sup> – 31<sup>st</sup> October 2010 in Jember district while the second phase was undertaken at 1<sup>st</sup> – 3<sup>rd</sup> November 2010 in Kalibaru, Banyuwangi district.

Each training was undertaken on 3 stage, namely: 1) Discuss and sharing experience between the participants and resource person related to natural resource management, 2) Field visit and measuring tree biomass in the dry land, 3) Analyzing and interpreting the data.

## 7. Melaksanakan pelatihan bagi tokoh masyarakat, polisi dan staf pemerintah lokal dalam perlindungan TNMB

Kegiatan ini telah dilaksanakan pada tanggal 10 – 11 Nopember 2010. Para peserta dilatih bagaimana melindungi TNMB dari gangguan dan ancaman dengan memberi mereka pengetahuan dan keterampilan seperti: teknik investigasi, teknik penyuluhan kehutanan, perlindungan satwa liar, pengelolaan dan kebijakan TNMB, dll.

## 8. Mengembangkan SOP untuk pengukuran lapangan

SOP dapat dilihat sebagai suatu bagian yang utuh dari suatu sistem kualitas yang memberikan informasi untuk melakukan suatu rangkaian kegiatan dengan baik, dan memfasilitasi konsistensi kualitas dan integritas suatu produk dari awal sampai mendapatkan hasil. Penggunaan SOP dalam pengukuran lapangan dapat membuat pekerjaan menjadi lebih efektif dan efisien.

Tujuan utama penarikan contoh pada kegiatan ini adalah untuk mengawasi dan mengevaluasi biomasa karbon hutan dengan tepat berdasarkan karakteristiknya. Penarikan contoh diperlukan untuk kegiatan pengumpulan data, khususnya jika pengumpulan data dilakukan pada area yang luas dan mempunyai beragam karakteristik. Agar dapat mendapatkan koleksi data yang tepat yang bisa mencerminkan kondisi keseluruhan dari wilayah yang diamati, lokasi penarikan contoh dan teknik pengumpulan data harus diseleksi secara tepat dan bijaksana.

Penarikan contoh berlapis digunakan mengacu pada sistem zonasi di Taman Nasional Meru Betiri dan tipe vegetasinya. Penarikan contoh berlapis dikembangkan dengan menggunakan langkah-langkah berikut, yaitu: 1) Tinjauan tentang sistematik rencana luaran, 2) Mengembangkan penarikan contoh, dan 3) Menentukan ukuran contoh yang memenuhi syarat kriteria dan batasan.

## 9. Mengatur dan melaksanakan pelatihan lokakarya dalam perhitungan karbon bagi para pihak terkait

Pelatihan perhitungan karbon telah dilaksanakan bekerjasama dengan Universitas Brawijaya. Kegiatan ini dilaksanakan dalam dua tahap, tahap pertama dilaksanakan pada tanggal 29 – 31 Oktober 2010 di Kabupaten Jember sedangkan tahap kedua dilaksanakan tanggal 1 - 3 November 2010 di Kalibaru, Kabupaten Banyuwangi.

Masing-masing pelatihan dilaksanakan dalam tiga tahap, yaitu: 1) Diskusi dan berbagi pengalaman antara peserta dan narasumber terkait dengan pengelolaan sumber daya alam, 2) Kunjungan lapangan dan pengukuran biomasa pohon pada lahan kering, 3) Menganalisa dan menginterpretasi data.



Figure 7. Releasing tukik to the ocean [Gambar 7. Pelepasan tukik ke laut]



Figure 8. PSC meeting in Bali 4th June 2010 [Gambar 8. Pertemuan PSC di Bali 4 Juni 2010]



Figure 9. Awareness raising seminar in Jember, 26th October 2010 [Gambar 9. Seminar Peningkatan kesadaran di Jember, 26 Oktober 2010]



Figure 10. Field visit on MRV training [Gambar 10. Kunjungan lapangan dalam pelatihan MRV]



Figure 11. Accepted materials of training on the class [Gambar 11. Menerima materi pelatihan di dalam kelas]

As initial activity before the participants learned about measuring and accounting the carbon stock in the field, the participants were given some materials related to MRV, namely: 1) Definition of climate change, the cause and effect of its, 2) Definition of emission, sequestration, adaptation, mitigation, land change, and land use, 3) REDD and REDD+, 4) MRV activity and carbon accounting using RaCSA (Rapid Carbon Stock Appraisal).

## 10. Conduct remote sensing analysis

Interpretation of spatial data is one approach to determine land use change and GHGs with highest tier (3) of IPCC 2006 guidelines. GIS analysis was undertaken to know land use and land use change, this activity was an initial activity to estimate emission and removal and carbon stock enhancement. The result of satellite imagery analysis was a basic of land use change matrix (LCM).

Some data that used for GIS analysis consist of SPOT 4 (1997 and 2005), Landsat 7 ETM+ (1997, 1999, 2001, 2002, 2003, 2007, and 2010), ALOS AVNIR-2 (2007 and 2009), and also topography map (2000).

Analysis procedure includes the following: 1) Pre Processing, 2) Visual interpretation, 3) Ground check, 4) Accuracy assessment, 5) Re-interpretation, 6) Land cover change matrix (LCM) making. This matrix provides information about land cover change for each forest categories and also deforestation.

Sebagai kegiatan awal sebelum peserta belajar tentang pengukuran dan perhitungan stok karbon di lapangan, para peserta diberi beberapa materi terkait dengan MRV, yaitu: 1) Definisi perubahan iklim, sebab dan dampaknya, 2) Definisi emisi, serapan, adaptasi, mitigasi, perubahan lahan dan penggunaan lahan, 3) REDD dan REDD+, 4) Kegiatan MRV dan perhitungan karbon menggunakan RaCSA (Menaksir Cepat Cadangan Karbon).

## 10. Melaksanakan analisis GIS

Penafsiran data spasial merupakan satu pendekatan untuk menentukan perubahan penggunaan lahan dan gas rumah kaca (GRK) dengan tingkat kerincian yang tinggi (tier 3) berdasarkan IPCC guideline 2006. Analisis GIS dilaksanakan untuk mengetahui penggunaan lahan dan perubahan penggunaan lahan, kegiatan ini merupakan kegiatan awal untuk menaksir emisi/ removal dan peningkatan stok karbon. Hasil analisis citra satelit merupakan dasar dari matriks perubahan penggunaan lahan.

Beberapa data yang digunakan untuk analisis GIS terdiri dari SPOT 4 (1997 dan 2005), Landsat 7 ETM+ (1997, 1999, 2001, 2002, 2003, 2007, dan 2010), ALOS AVNIR-2 (2007 dan 2009), serta peta topografi (tahun 2000)

Prosedur analisis meliputi kegiatan: 1) Pre-processing, 2) Penafsiran visual, 3) Pengecekan lapangan, 4) Penilaian akurasi, 5) Re-interpretasi, 6) Pembuatan LCM. Matriks dapat memberikan informasi tentang perubahan tutupan lahan untuk masing-masing kategori hutan serta deforestasi.

Category	Resource (Landsat TM 1:50.000)									
	1997		2001		2005		2007		2010	
	Ha	%	Ha	%	Ha	%	Ha	%	Ha	%
Wide	54562	100	54562	100	54562	100	54562	100	54562	100
Land Category										
A. Forest Land (Lahan Hutan)	47793	88	48372	89	48501	89	48426	89	48381	89
1. FL remain FL	47793		47428		48216		48316		48324	
2. Land converted to FL	0		944		284		110		56	
B. Crop Land (Pertanian)	1565	3	1526	3	3806	7	4077	7	4118	8
1. CL remain CL	1565		1186		1496		3684		4016	
2. Land converted to CL	0		340		2311		393		101	
C. Grass Land (Padang Rumput)	3738	7	4109	8	2174	4	1967	4	1967	4
1. GL remain GL	3738		2377		2150		1862		1967	
2. Land converted to GL	0		1733		23		105		0	
D. Wet Land (Lahan Basah)	0	0	0	0	0	0	0	0	0	0
1. WL remain WL	0		0		0		0		0	
2. Land converted to WL	0		0		0		0		0	
E. Settlement (Pemukiman)	28	0	28	0	28	0	33	0	38	0
1. S remain S	28		28		28		28		33	
2. Land converted to S	0		0		0		5		4	
F. Other Land (Area Penggunaan Lain)	1438	3	527	1	52	0	59	0	59	0
1. OL remain OL	1438		77		52		52		59	
2. Land converted to OL	0		449		0		6		0	
G. Not Data (Tak ada data)	0	0	0	0	0	0	0	0	0	0
1. ND remain ND	0		0		0		0		0	
2. Land converted to ND	0		0		0		0		0	



**11. Project Technical Committee Meeting for ITTO PD 519/08 Rev. 1 (F) at 15<sup>th</sup> November 2010**

As a mandate of PSC meeting at 4<sup>th</sup> June 2010 in Bali. The PTC meeting has been undertaken at 15<sup>th</sup> November 2010 in Forest Policy and Climate Change Center office, Bogor.

The meeting was chaired by Director of standardization and environment, and attended by DG of FORDA, representative of ITTO, director executive of LATIN, head and staff of MBNP, representative of forest and nature conservation research center, program coordinator, Jember University, project staff, and national consultant.

Current project coordinator Dr. Kirsfianti Ginoga has been promoted to be Director of Forest Policy and Climate Change Center, so from the beginning of 2011 Ir. Ari Wibowo, MSc will be a new project coordinator responsible mainly to validate and ensure all the activities assigned.

**11. Pertemuan PTC tanggal 15 Nopember 2010**

Sebagai mandat dari pertemuan PSC pada tanggal 4 Juni 2010 di Bali, pertemuan PTC telah dilaksanakan pada tanggal 15 November 2010 di kantor Pusat Penelitian dan Pengembangan Perubahan Iklim dan Kebijakan Kehutanan, Bogor.

Pertemuan ini dipimpin oleh Kepala Pusat Standardisasi dan Lingkungan dan dihadiri oleh Kepala Badan Litbang Kehutanan, perwakilan ITTO, direktur eksekutif LATIN, kepala TNMB dan staf, perwakilan Pusat Penelitian dan Pengembangan Hutan dan Konservasi Alam, koordinator kegiatan, Universitas Jember, staf kegiatan, dan konsultan nasional.

Koordinator kegiatan saat ini Dr. Kirsfianti Ginoga telah dilantik menjadi Kepala Pusat Penelitian dan Pengembangan Perubahan Iklim dan Kebijakan Kehutanan, sehingga pada awal tahun 2011, Ir. Ari Wibowo, MSc akan menjadi koordinator kegiatan yang baru yang bertanggung jawab untuk mengesahkan dan memastikan pelaksanaan semua kegiatan yang ditugaskan.

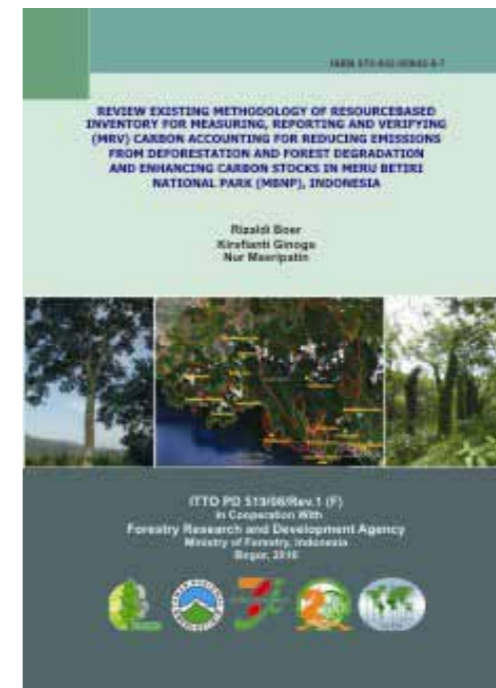


Figure 14. Technical Report No.3 [Gambar 14. Menerima materi pelatihan di dalam kelas]

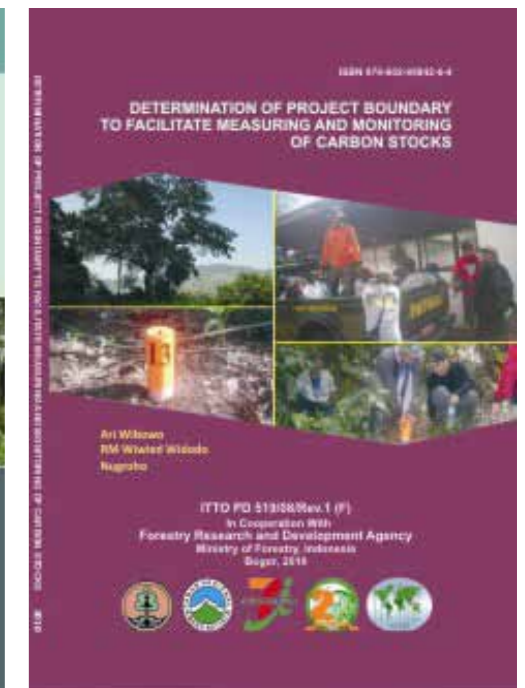


Figure 15. Technical Report No.4 [Gambar 15. Menerima materi pelatihan di dalam kelas]

**Some publications and Reports during 2010**

**Technical Reports**



Figure 12. Technical Report No.1 [Gambar 12. Menerima materi pelatihan di dalam kelas]



Figure 13. Technical Report No.2 [Gambar 13. Menerima materi pelatihan di dalam kelas]

**BriefInfo Publications**

ITTO Program Pd 519/08 Rev. 1 (F) in Cooperation with Forestry Research and Development Agency Ministry of Forestry, Indonesia Bogor, 2010

ITTO Program Pd 519/08 Rev. 1 (F) in Cooperation with Forestry Research and Development Agency Ministry of Forestry, Indonesia Bogor, 2010

**Public Private Partnership for measuring and monitoring carbon and biodiversity**

Public-private partnership for measuring, reporting, and verifying emission and carbon enhancement are critical for sustainable forest management, where a range of stakeholders are needed to be in place. Meru Beteri National Park's demonstration activity (DA) aims to develop a real, long-term and measurable system for monitoring emission reductions from deforestation, forest degradation and enhancement of forest carbon stocks through community, public, and private participation.

**Boundary Determination to facilitate measuring and monitoring of carbon stocks and biodiversity**

Meru Beteri National Park (MBNP), situated within 11 305'38" N, 103 08'30" E, and 8020'48" S, 8033'48" S, has been selected as a representative conservation forest in Indonesia because of challenges in managing forest sustainably, hence contribute to reducing global warming which could have catastrophic impacts on the human living environment. Determining the geographic boundary within MBNP aims to facilitate all activities that contribute to source and sinks in CO<sub>2</sub> equivalent from the five pool of carbon, i.e., above ground biomass (AGB), below ground biomass (BGB), dead wood, litter and soil. For this purposes, about 40 permanent sample plots (PSP) at 20 x 100 meter will be laid down representing each zone and land use category. The number and coordinates of each PSP can be seen in Table below.

NUCLEUS ZONE				FOREST ZONE			
PSP Number	X	Y	Coordinates	PSP Number	X	Y	Coordinates
1	800	9,046,048	11 305'38" N, 103 08'30" E	1	800	9,046,048	11 305'38" N, 103 08'30" E
2	800	9,046,048	11 305'38" N, 103 08'30" E	2	800	9,046,048	11 305'38" N, 103 08'30" E
3	800	9,046,048	11 305'38" N, 103 08'30" E	3	800	9,046,048	11 305'38" N, 103 08'30" E
4	800	9,046,048	11 305'38" N, 103 08'30" E	4	800	9,046,048	11 305'38" N, 103 08'30" E
5	800	9,046,048	11 305'38" N, 103 08'30" E	5	800	9,046,048	11 305'38" N, 103 08'30" E
6	800	9,046,048	11 305'38" N, 103 08'30" E	6	800	9,046,048	11 305'38" N, 103 08'30" E
7	800	9,046,048	11 305'38" N, 103 08'30" E	7	800	9,046,048	11 305'38" N, 103 08'30" E
8	800	9,046,048	11 305'38" N, 103 08'30" E	8	800	9,046,048	11 305'38" N, 103 08'30" E
9	800	9,046,048	11 305'38" N, 103 08'30" E	9	800	9,046,048	11 305'38" N, 103 08'30" E
10	800	9,046,048	11 305'38" N, 103 08'30" E	10	800	9,046,048	11 305'38" N, 103 08'30" E
11	800	9,046,048	11 305'38" N, 103 08'30" E	11	800	9,046,048	11 305'38" N, 103 08'30" E
12	800	9,046,048	11 305'38" N, 103 08'30" E	12	800	9,046,048	11 305'38" N, 103 08'30" E
13	800	9,046,048	11 305'38" N, 103 08'30" E	13	800	9,046,048	11 305'38" N, 103 08'30" E
14	800	9,046,048	11 305'38" N, 103 08'30" E	14	800	9,046,048	11 305'38" N, 103 08'30" E
15	800	9,046,048	11 305'38" N, 103 08'30" E	15	800	9,046,048	11 305'38" N, 103 08'30" E
16	800	9,046,048	11 305'38" N, 103 08'30" E	16	800	9,046,048	11 305'38" N, 103 08'30" E
17	800	9,046,048	11 305'38" N, 103 08'30" E	17	800	9,046,048	11 305'38" N, 103 08'30" E
18	800	9,046,048	11 305'38" N, 103 08'30" E	18	800	9,046,048	11 305'38" N, 103 08'30" E
19	800	9,046,048	11 305'38" N, 103 08'30" E	19	800	9,046,048	11 305'38" N, 103 08'30" E
20	800	9,046,048	11 305'38" N, 103 08'30" E	20	800	9,046,048	11 305'38" N, 103 08'30" E
21	800	9,046,048	11 305'38" N, 103 08'30" E	21	800	9,046,048	11 305'38" N, 103 08'30" E
22	800	9,046,048	11 305'38" N, 103 08'30" E	22	800	9,046,048	11 305'38" N, 103 08'30" E
23	800	9,046,048	11 305'38" N, 103 08'30" E	23	800	9,046,048	11 305'38" N, 103 08'30" E
24	800	9,046,048	11 305'38" N, 103 08'30" E	24	800	9,046,048	11 305'38" N, 103 08'30" E
25	800	9,046,048	11 305'38" N, 103 08'30" E	25	800	9,046,048	11 305'38" N, 103 08'30" E
26	800	9,046,048	11 305'38" N, 103 08'30" E	26	800	9,046,048	11 305'38" N, 103 08'30" E
27	800	9,046,048	11 305'38" N, 103 08'30" E	27	800	9,046,048	11 305'38" N, 103 08'30" E
28	800	9,046,048	11 305'38" N, 103 08'30" E	28	800	9,046,048	11 305'38" N, 103 08'30" E
29	800	9,046,048	11 305'38" N, 103 08'30" E	29	800	9,046,048	11 305'38" N, 103 08'30" E
30	800	9,046,048	11 305'38" N, 103 08'30" E	30	800	9,046,048	11 305'38" N, 103 08'30" E
31	800	9,046,048	11 305'38" N, 103 08'30" E	31	800	9,046,048	11 305'38" N, 103 08'30" E
32	800	9,046,048	11 305'38" N, 103 08'30" E	32	800	9,046,048	11 305'38" N, 103 08'30" E
33	800	9,046,048	11 305'38" N, 103 08'30" E	33	800	9,046,048	11 305'38" N, 103 08'30" E
34	800	9,046,048	11 305'38" N, 103 08'30" E	34	800	9,046,048	11 305'38" N, 103 08'30" E
35	800	9,046,048	11 305'38" N, 103 08'30" E	35	800	9,046,048	11 305'38" N, 103 08'30" E
36	800	9,046,048	11 305'38" N, 103 08'30" E	36	800	9,046,048	11 305'38" N, 103 08'30" E
37	800	9,046,048	11 305'38" N, 103 08'30" E	37	800	9,046,048	11 305'38" N, 103 08'30" E
38	800	9,046,048	11 305'38" N, 103 08'30" E	38	800	9,046,048	11 305'38" N, 103 08'30" E
39	800	9,046,048	11 305'38" N, 103 08'30" E	39	800	9,046,048	11 305'38" N, 103 08'30" E
40	800	9,046,048	11 305'38" N, 103 08'30" E	40	800	9,046,048	11 305'38" N, 103 08'30" E

**Information Needed**

Improved contribution to emission reduction and biodiversity

Sustainable conservation of Meru Beteri National Park with increased role of conservation in reducing biodiversity loss and carbon emission due to deforestation and forest degradation

Communities and institutional Building improved

Consultation and Capacity Building

Public-Private Partnership

Community Livelihood and awareness

A sound and robust system to measure and monitor carbon stocks

Boundary and Baseline

Forest and GIGs Inventory

Approved Methodology

Figure 16. Brief Info No.1 [Gambar 16. Brief Info No.1]

Figure 17. Brief Info No.2 [Gambar 17. Brief Info No.2]



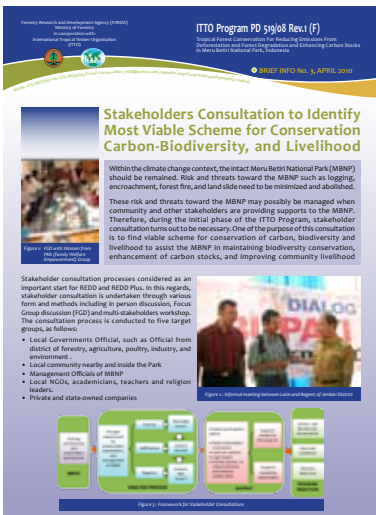


Figure 18. Brief Info No.3 [Gambar 18. Brief Info No.3]

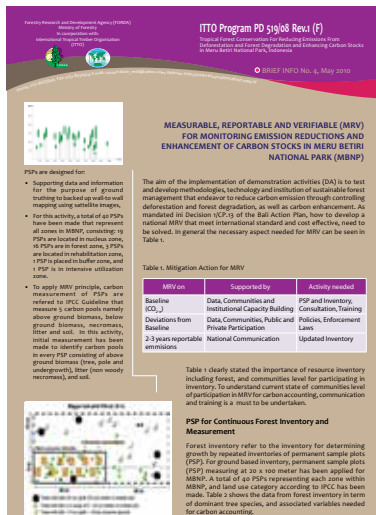


Figure 19. Brief Info No.4 [Gambar 19. Brief Info No.4]



Figure 20. Brief Info No.5 [Gambar 20. Brief Info No.5]



Figure 21. Brief Info No.6 [Gambar 21. Brief Info No.6]

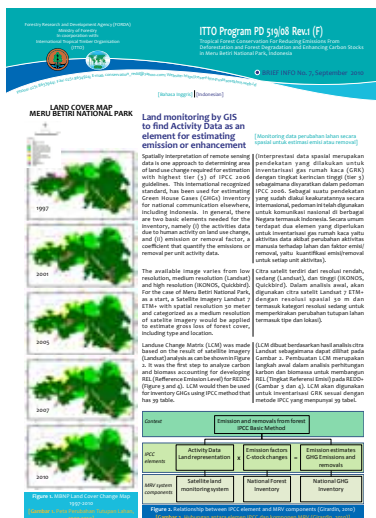


Figure 22. Brief Info No.7 [Gambar 22. Brief Info No.7]



Figure 23. Brief Info No.8 [Gambar 23. Brief Info No.8]

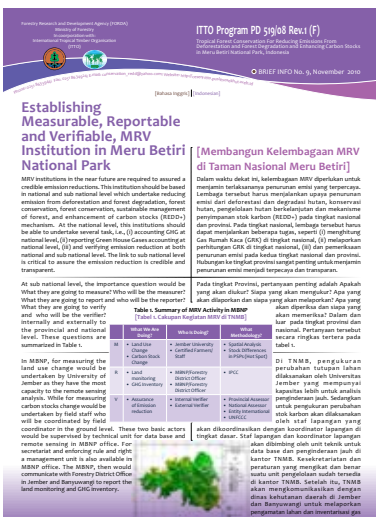


Figure 24. Brief Info No.9 [Gambar 24. Brief Info No.9]



Figure 25. Brief Info No.10 [Gambar 25. Brief Info No.10]

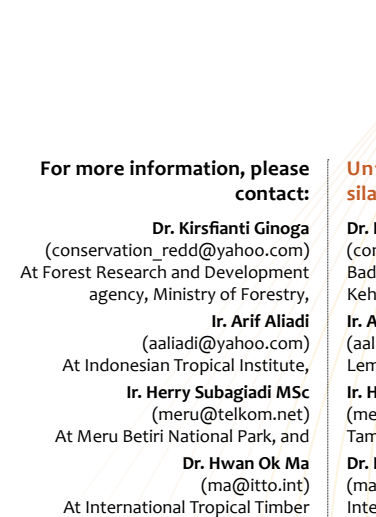


Figure 26. Brief Info No.11 [Gambar 26. Brief Info No.11]

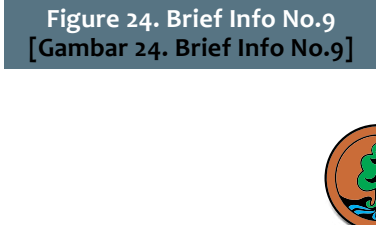


Figure 27. Brief Info No.12 [Gambar 27. Brief Info No.12]

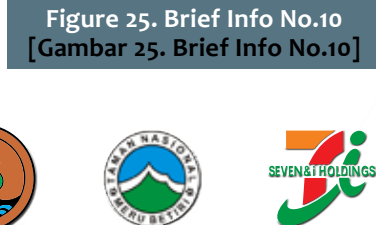


Figure 28. Brief Info No.13 [Gambar 28. Brief Info No.13]



Figure 29. Brief Info No.14 [Gambar 29. Brief Info No.14]