Indonesia's Ministry of Forestry – International Tropical Timber Organization
Project RED-PD 007/09 Rev. 2 (F)
Enhancing Forest Carbon Stock to Reduce Emission from Deforestation and Degradation through Sustainable Forest Management (SFM) Initiatives in Indonesia

# REPORTS
# on
# the International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia

**Jakarta, Indonesia**
**May 10 – 11, 2012**

Indonesia's Ministry of Forestry
International Tropical Timber Organization
RED-PD 007/09 Rev 2 (F)
Enhancing Forest Carbon Stock To Reduce Emission From Deforestation And Degradation Through Sustainable Forest Management (SFM) Initiatives In Indonesia

# Reports on the International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia

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## Contents:

# International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia

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# REPORT

## 1. Background

Indonesia ranks as the third of the world's largest tropical forest following Brazil and Congo. It might play an essential role to succeed in reducing emissions from deforestation and forest degradation (REDD+), consisting of carbon conservation, sustainable forest management (SFM), carbon stock enhancement, and reducing emissions from deforestation and forest degradation. REDD+ in developing country becomes national and international issues, and need for SFM to be part of any scheme in the tropics has been becoming important. It is recognized that SFM will not completely eliminate deforestation and forest degradation problems, SFM, however, will improve forest management and bring it economically feasible, ecologically sustainable and socially acceptable management practices. Unfortunately, the majority of stakeholders/parties locally and globally has not had complete information on SFM in enhancing forest-based carbon stock, carbon sequestration, and carbon storage in green products. Sustainable Forest Management within such forest functions as production forests, conservation forests and protected forests, and community forest (private-owned forests) should be included in of REDD+ programs. In Indonesia, sustainable management of production forest has been practiced through an evaluation by independent institutions in which natural forest concession holders are graded according to criteria and indicators.

The Indonesian governmen in G-20 Pittsburgh meeting and COP 15 announced that Indonesia committed voluntarily to reduce its emission by 26 percent below BAU levels by 2020 unilaterally. It has also indicated to increase emission reduction target further to 41% with support from developed countries. This is considered as Indonesia support to the world's commitment as agreed at the Bali COP under long cooperative action to implement unilateral National Appropriate Mitigation Actions (NAMAS). The latest governmental regulations relating toclimate change are the Indonesian Presidential regulations of Number 61 of 2011 on National Action Plans for Reducing Green House Gases and the Presidential Decree Number 71 of 2011 on Inventory of National Green House Gases. These indicate major political will from government.

As stated in Presidential Decree Number 61/2011, sustainable forest management will be one of the key strategies for Indonesia in reducing its emission and also carbon sequestration. SFM is not only assisting Indonesia in meeting the emission reduction target but also in ensuring sustainability of economic development through production of forest and non-forest products and other environmental services. At present, GoI is beginning to develop policies and initiate programs and demonstration activities to reduce emissions from deforestation and forest degradation including forest conservation, SFM and sink enhancement (REDD+).

Positive interests have recentrly grown to reduce emissions from deforestation and forest degradation derived from forestry practices in Indonesia, but data and information of those REDD+ initiatives need to be mapped and to be shared. Those will offer opportunities and different lessons-learned to generate credits from other carbon offset based on SFM initiatives in Indonesia. Some efforts have been implementing to enhance these aspects, among others through the Indonesian

government and International Tropical Timber Organization project RED-PD 007/09Rev. 2 (F) which will be implemented in two years of August 2010 to August 2012. The objectives of the project are to promote SFM as an important option for forest-based climate change mitigation to reduce emissions from deforestation and forest degradation and to develop a draft of national strategy in maintaining and increasing forest carbon stock through SFM. To achieve these goals and to promote stakeholder's awareness on SFM important roles in reducing emissions from deforestation and forest degradation, the project is implementing several activities such as data publication, study and analysis on SFM relating to forest-based climate change, focus discussion, national workshops, international workshops of relevant stakeholders, namely governments (central and provincial government, private sectors, forest and agricultural and mining associations, agricultural universities, and non-governmental organizations, aid organization, climate and forest experts, and relevant forest community

That is why the Indonesian Ministry of Forestry in collaboration with International Tropical Timber Organization (ITTO) RED-PD 007/09Rev.2 (F), as one of the project activities, organized a-two day international meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia held in Jakarta, Indonesia on May 10-11, 2012. The objective of the meeting was to share information upon study in sustainable forest management initiatives to REDD+ and to obtain inputs from consumers and producers of ITTO member countries on how to strengthen forest-based climate change policies and action plans in Indonesia, and also to give a opportunity to other invited countries to share their views on these aspects.

## 2. Participants

Participants were from ITTO's consumers and producer countries, including Indonesia with a total almost 80 participants of relevant offficials (central governments, provincial governments, non-governmental organizations, forest associations, forest concessions, agricultural colleges, aid organizations) and were from overseas such as Cambodia, India, Korea, Lao PDR, Malaysia, Myamar, and Philippines. In addition, foreign embassy based in Jakarta attending the meeting were Embassy of Japan and Korea. List of participants is attached to this report. In addition, ITTO's representative (Dr. Steve Johnson) was also present and delivered a keynote speech to the meeting.

## 3. Date and Venues

This international was held in two days of May 10-11, 2011 in Jakarta, including a field visit to community-based teak plantation of KPWN Purwakarta, and state forest company of Perum Perhutani in West Java. This meeting was giving India and Korea to present their papers on forest-based climate change. The agenda of the meeting is attached.

## 4. Meeting Wrap up & Recommendation

The ITTO project [RED-PD 007/09. Rev. 2 (F)]] of Enhancing Forest Carbon Stock to Reduce Emissions from Deforestation and Degradation through Sustainable Forest Management Initiatives in Indonesia has been implemented for almost two years. The project which started in August of 2010 was mainly [aims] to assist Indonesia to exercise the REDD+ implementation and to share best practice of sustainable forest management and markets for forest ecosystem services including carbon, as well as lesson learned to other ITTO member countries. The project is funded by ITTO donor countries: Japan, Switzerland, USA, and Norway.

## 4.1. Objectives

1. To share information based upon study on sustainable forest management for a fores-based initiative to reduce emissions from deforestation and forest degradation in Indonesia
2. To share Indonesia's forest-based climate change policies.
3. To obtain inputs from consumer and producer of ITTO's member countries on how to strengthen forest-based climate change policies and action plans in Indonesia.

## 4.2. The Expected Outcome

1. Improve knowledge base of REDD+ including policies, legislations, and initiatives at national and regional level regarding sustainable forest management and climate change mitigation.
2. Best practice methods to obtain the status of reference level/reference emission level from each type of tropical forest.
3. New understanding of the relationship between forest cover, deforestation, forest degradation, and emission reduction.

## 4.3. Key Issues and Challenges

- REDD+ presents significant opportunities not only to forest community, but also to improve national revenue through best practice of sustainable forest management.
- Sustainable forest management in relation to REDD+
- Climate change mitigation policies and forestry and action plans
- National Action Plan for Reducing GHG Emission from forestry sector

## 4.4. Meeting Summary

- The essence of REDD: Avoid forest degradation and deforestation, maintain carbon stock n conservation forest, and enhance carbon stock. The government of Indonesia is currently undertaking efforts to translate REDD into practice through the formulation of National Strategy for REDD+, establishing REL/EL (Reference Emission Level/Reference Level), National Forest Monitoring System, and the implementation of Safeguard Information System.
- The role and potential of forest in climate change: absorb CO2, Hold Solid C in terms of standing biomass, produce sustainable renewable biomass and provide renewable green products.
- Source of CO2 emission from forests: forest fire, illegal logging, overcutting, new development, new sites for agriculture products, and other land use changes.
- Relevant Policies: Reduction of GHG emission and at the same time promote a safe environment, prevent disasters, absorb workforce and increase state's and community's revenues.
- Enhancement of productivity and efficient production of agriculture on peat lands.
- Suppress the rate of forest deforestation and degradation to reduce GHG emission.
- Increase planting to increase GHG absorption and increase efforts to secure forest areas from fire and illegal logging and apply sustainable forest management.
- Business as usual projection versus non-BAU in REDD+

## 4.5. Recommendations

- Establish safeguard policies to ensure that biodiversity, tenure system, and traditional knowledge will be maintained within REDD+ program.

- Harmonize policy among sectors and level while anticipating population growth and economic development.
- Improve monitoring, transparency, and strengthen governance in implementing sustainable forest management.
- Create more access to carbon market, especially for developing countries, to maximize REDD+ objectives.
- Increase communication and dialogue among stakeholders, parties in the region exercising REDD+ to share lessons learned and best practices.
- Improve support, both capacity and financial, from donor countries to accelerate the implementation of sustainable forest management and climate change mitigation.

# International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia

Jakarta, May 10 – 11, 2012

# ANNEXES

# International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia

Jakarta, May 10 – 11, 2012

# ANNEXES

## A. AGENDA OF THE MEETING

# International Meeting on
# Forest Based Climate Change Policies and Action Plans in Indonesia
Jakarta, May 10 – 11, 2012

## AGENDA
### First Day (May 10, 2012)

| Time | Activity | Presenters | Remarks |
|---|---|---|---|
| 08.30 – 09.00 | Participants' registration | | |
| 09.00 – 09.30 | • Remark speech<br>• Keynote speech and opening of the meeting | • Dr. Steven Johnson (ITTO's representative)<br>• DG-Forest Business Mgt | |
| 09.30 – 10.00 | Coffe break & press conference | | |
| 10.00 – 11.40 | ***First session (Indonesian presentation) :***<br>a. Indonesia's perspective on the global climate change mitigation: forestry sector<br>b. Indonesia's National Action Plans for reducing green house gases emissions<br>c. Climate Change & Forestry: Indonesia's Policy within Regional and Global Challenges<br>d. National Strategy for REDD+ in Indonesia<br>e. Sustainable forest management in relation to REDD+ | a. Rahmat Witoelar / Dr. Doddy Sukadri (National Council for Climate Change)<br>b. Dr. Basah Hernowo (National Planning Agency)<br>c. Dr. Yetti Rusli (Senior Advisor to the Minister of Forestry on Environment and Climate Change)<br>d. Dr. Hadi Daryanto / Dr. Nur Masripatin (Indonesia Ministry of Forestry)<br>e. Dr. Rizaldi Boer (International Expert Bogor AgriculturalUniversity) | **Facilitator:**<br>Dr. Achmad Fauzi<br>(Senior Research Scientist)<br>*Simultan presentation of 20 minutes each followed by a panel discussion* |
| 11.40 – 13.00 | Discussion | | |
| 13.00 – 14.00 | Lunch Break | | |
| 14.00 – 15.40 | ***Second Session (Foreign Country Presentation):***<br>• Climate Change Policies of Forestry Sector in Korea<br>• Forest-based Climate Change Policies and Action Plans | • Song, Kyong Ho (Korea Forest Service)<br>• N. C. Saravanan (Ministry of Environment & Forest, India) | **Facilitator:**<br>Dr. Sunaryo (Indonesia Ministry of Forestry)<br>*Simultan presentation of 20 minutes each followed by a panel discussion* |
| 15.40 – 16.40 | Discussion | | |
| 16.40 – 17.10 | Wrap up of the meeting | | **Facilitator:**<br>Dr. Tony Suhartono<br>(Indonesia Ministry of Forestry) |
| 17.10 – 17.30 | Closing of the meeting | | DG of Forestry Business Mgt |
| 17.30 – 19.30 | Time Break | | |
| 19.30 – 21.30 | Hospitality dinner for all participants | | Indonesia Ministry of Forestry |

# International Meeting on
# Forest Based Climate Change Policies and Action Plans in Indonesia

Jakarta, May 10 – 11, 2012

## AGENDA

### Second Day (May 11, 2012)

| Time | Activity | Remarks |
|---|---|---|
| 06.00 – 06.30 | Breakfast time | |
| 06.45 – 07.00 | Field trip preparation on the lobby | Indonesia MoF |
| 07.00 – 09.00 | to ***KPWN – PURWAKARTA*** (Community-based Plantation) | Indonesia MoF |
| 09.00 – 10.00 | • Site 1: Cinangka Village | KPWN |
| 10.15 – 10.30 | • Site 2: Cikopo Village | KPWN |
| 10.30 – 11.00 | to ***PERUM PERHUTANI*** (State-owned Forest Company)<br>• Site 1: APB (Seed Production Area) | PERUM PERHUTANI |
| 11.00 – 11.30 | • Site 2: Logyard | PERUM PERHUTANI |
| 11.30 – 13.30 | • Site 3: Forest compartment 17<br>- Lunch break & Friday Prayers for Moslem<br>- Video show about environmental service from sustainable forest management in Bogor Forest management Unit and Kendal Forest management Unit<br>- SFM products exhibition | PERUM PERHUTANI |
| 13.30 – 13.45 | Welcome note from Perhutani Unit III Management | PERUM PERHUTANI |
| 13.45 – 14.15 | • Site 4: Hedge Orchard of Teak | PERUM PERHUTANI |
| 14.15 – 15.00 | • Site 5: Teak Nursery | PERUM PERHUTANI |
| 15.00 – 15.30 | • Site 6: Teak plantation of Age class II (KU II)/ Thinning | PERUM PERHUTANI |
| 15.30 – 16.30 | • Site 7: Memorial Planting | PERUM PERHUTANI |
| 16.30 – 18.30 | Going back to Jakarta | Indonesia MoF |

# ANNEXES

## B. SPEECHES OF ITTO AND INDONESIA'S MINISTRY OF FORESTRY

# International Meeting on Forest-Based Climate Change Policies and Action Plans

Jakarta, Indonesia, 10-11 May 2012

## Opening Speech

**Steven Johnson, ITTO**

Representative of Indonesia's Ministry of Forestry,
International participants,
Representatives from Indonesian provinces,
Ladies and gentlemen,

On behalf of ITTO, I would like to welcome you to this International Meeting on Forest-Based Climate Change Policies and Action Plans. This meeting is being convened under an ITTO-funded project called "Enhancing Forest Carbon Stocks to Reduce Emissions from Deforestation and Degradation through Sustainable Forest Management Initiatives in Indonesia" that has been implemented here over the last two years. The purpose of the workshop is to share the important results achieved by this project with both national and international partners, and to learn about related initiatives in other countries.

This Indonesian project was one of the first funded under ITTO's relatively new thematic program on Reducing Deforestation and Forest Degradation and Enhancing Ecosystem Services in Tropical Forests (REDDES). This program was established in 2009 to assist ITTO member countries to prepare for and participate in REDD+ initiatives and to promote sustainable management of and markets for forest ecosystem services, including carbon. This program has funded close to $10 million worth of activities throughout the tropics over the past two years. ITTO considers this project in Indonesia especially important as it seeks to clearly demonstrate the important role that sustainable forest management, or SFM, can play in contributing to REDD+ objectives.

Although it may seem obvious to most of us, the relevance of SFM to REDD+ is still a matter of contention in some quarters, and some parties are actively working against its inclusion in any funding mechanism for REDD+ that may arise from on-going international negotiation processes. ITTO's position is that selective harvesting using techniques like reduced impact logging, buffer strips, wise road and landing construction, etc (ie, SFM) will leave forests much more capable to offer all of their many goods and services in perpetuity than unsustainable and/or illegal forestry. Many of those questioning the role of SFM in contributing to REDD+ objectives seem to think that the alternative is conservation in well-managed parks that people are somehow kept away from. Our experience is that this viewpoint is naïve at best and potentially dangerous for the future of both REDD+ and tropical forests. Our experience is that forests will continue to be used as a source of development and employment by most countries in the tropics, regardless of whatever international schemes are developed to help protect them. We therefore believe it is essential that for schemes like REDD+ to succeed at a large scale, they need to recognize all activities that have positive impacts on keeping forests standing, including SFM for extractive uses like timber.

This is why this project and this meeting are so important. Most of you are aware that Indonesia has been one of the countries undertaking the most work on REDD+ preparations, through a range of internationally funded projects and through national initiatives. Work under this project has helped to establish baselines for the carbon contributions of SFM as compared to "business as usual", whether that be unsustainable logging operations, conversion to other land uses like oil palm, or other activities like mining. The project has also allowed the vast and growing body of work being carried out in Indonesia in relation to REDD+ to be compiled, analyzed and disseminated in a series of reports, some of which you will hear more about today.

There is no doubt that REDD+ holds out significant opportunities for forests and forestry in tropical countries. The sums of money being talked about, if they materialize, are truly staggering. However, if these funds are simply directed to forest conservation as some parties wish, ignoring the economic and development realities that exist in most countries, the scheme will never reach its potential for arresting forest destruction and degradation. ITTO believes this Indonesian project, together with similar initiatives underway in other countries, forms the best approach possible to assembling irrefutable evidence of the benefits of SFM in maintaining and improving carbon balances along with the many other goods and ecosystem services provided by forests. We are therefore proud to be supporting Indonesia in these efforts, the results of which will be disseminated both nationally and internationally.

I will close my brief statement by thanking once again the Ministry of Forestry and my good friends who have overseen this project over the past two years. They have arranged an excellent program for us, including invigorating discussions today, a dinner this evening and a field trip tomorrow to see some of the issues we will discuss in practice. I look forward to sharing in all of these activities with all of you over the next two days.

Thank you.

**OPENING SPEECH**

By

## SENIOR ADVISER TO THE MINISTER OF FORESTRY

**On behalf of**

## DIRECTOR GENERAL, FORESTRY BUSINESS MANAGEMENT

**at**

## The International Meeting On Forest Based Climate Change Policies And Action Plan

Indonesia's Ministry of Forestry-ITTO
Project RED-PD Rev.2(F):
Enhancing Forest Carbon Stock to Reduce Emission from Deforestation and Degradation through SFM initiatives in Indonesia

Honourable ITTO Representatives, Dr. Steve Johnson,
Distinguished participants from respective Embassy in Jakarta,
Distiungished participants from ASEAN member countries, India and Korea,
Distinguished invitees Ladies and Gentlemen,

Assalamu'alaikum Warakhmatullahi Wabarakatuh,

I on behalf of the Ministry of Forestry of Indonesia would like to express my gratitude and welcome you all distinguish guests and participants to Jakarta, especially those participants from the neighboring countries such as Brunei Darussalam, Cambodia, Lao PDR, Malaysia, Myanmar, the Philippines, as well as those participants from the north and the east; India, Korea and I am pleased to have this opportunity to address this important meeting.

Allow me also to extend my sincere appreciation to the ITTO and the donor countries, Government of Japan, Norway, Switzerland and the US for their support to the ITTO Project RED-PD 007 Rev.2(F): Enhancing Forest Carbon Stock to Reduce Emission from Deforestation and Degradation through SFM initiatives in Indonesia that make this meeting possible.

This event is very important to all of us particularly to Indonesia and the ASEAN countries in implementing the best efforts to reach national commitment to reduce Green House Gas emission through the scheme of reducing emissions from deforestation and forest degradation; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries as stated on Bali action Plan article 1.b.iii, and on Copenhagen Accord we named it as REDD+.

Distinguished participants, Ladies and Gentlemen:

As you might be all aware, the Indonesian Government is committed to reduce its emission by 26% up to 41% by 2020. The significant part of emission reduction will be achieved through reducing deforestation and forest degradation, conversion of natural forests; promotion of sustainable forest management, and rehabilitation of degraded forests, conservation and enhancement of carbon stock. The REDD+ policies has been laid out and integrated within the national strategic development plan which emphasize on sustainable and low carbon policy. The latest policy support for climate change has been set up on the Presidential Decrees no 61/2011 on National Action Plan for GHG Reducing Emission, and the Presidential Decrees no 71/2011 on GHG Inventory System.

Ladies and Gentlemen:

As one of the initiator, since the UNFCCC COP 13, 2007 in Bali (Bali Action Plan), Indonesia has laid out a number of policies and programs related to REDD+. At the present Indonesia has smoothly

passed the REDD+ preparation and we are at the stage of READINES. We are aware that there might be problems occuring here and there relating to the process of REDD+ exercises. However, with the firm of national policy, supports from relevant sectors at national level as well as partnership and supports from donor countries and international institutions, and the share of lesson learned like we are doing it here, we convince that our forests and climate change or REDD+ programme and activities are in the right track.

Ladies and Gentlemen:

As a country with the third largest tropical forests in the world, the implementation of sustainable forest management is an unavoidable. Our policy lay out of forest at the up most level so that it would serve as live support system for human being and the ecosystem. With that the production of both timber and non timber as well as ecosystem services, shall be sustained or even improve the quality. Forest policy should also address to improve substantially the community welfare, especially those living within and around the forests. To address the later, Indonesia has long underlined and implemented the program of community empowerment as stated in the national policy.

The Ministry of Forestry has adopted the national development principles, that is pro-growth, pro-poor, pro-job and pro-environment. To ensure these policies run appropriately, the governance principle of transparent, accountable, participation and FPIC for REDD+ Free Prior informed consent or PADIATAPA is inplace in forest area management. In addition, the outcomes of FLEGT and VPA programmes between EU and the Ministry of Forestry will bring very strong support to REDD+ readiness and the governance.

Ladies and Gentlemen,

Governance in the context of REDD+ in UNFCCC also involves safeguard for the conservation of biodiversity, customary and local communities. The need for transparent and effective governance with full participation of all stakeholders is a challenge in the implementation of REDD+.

The Initiatives for improving forest governance in the context of REDD+ need to be maintained, should become one of the reference in improving the legal and regulatory framework in the forestry sector.

Ladies and Gentlemen:

I welcome the collaborative initiative between the Indonesian Government and the ITTO. I hope there will be concrete and constructive results in the form of recommendation for all ITTO's country members, consuming and producing countries, for the forest based climate change policies and action plan and the improvement of the forest governance system and the national strategy. I do have a special hope to the ITTO Head Quarter which could be a host to build deep understanding of the forest roles on mitigating climate change as well as coping and adapt the impact of climate change among country members. I hope that this meeting can proceed productively and that the participants would obtain lessons and information, in implementing the REDD+ which at the end maintain the sustainability of our forests, and safe the world from climate change catastrophe.

These are the points and expectations that I wish to share with you on this occasion.

On that note, I now would like to take the privilege to officially declare the International Meeting on Forest Based Climate Change Policies and Action Plan officially open.

Thank you

Wassalammu'alaikum Warahmatullahi Wabarakatuh.

# International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia

Jakarta, May 10 – 11, 2012

# ANNEXES

## C. MEETING'S WRAP UP AND RECOMMENDATION

# International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia

**INDONESIA'S MINISTRY OF FORESTRY**
**INTERNATIONAL TROPICAL TIMBER ORGANIZATION**
Jakarta, May 10 2012

## WRAP UP & RECOMMENDATIONS

The ITTO project [RED-PD 007/09. Rev. 2 (F)] of Enhancing Forest Carbon Stock to Reduce Emissions from Deforestation and Degradation through Sustainable Forest Management Initiatives in Indonesia has been implemented for almost two years. The project which started in August of 2010 was mainly [aims] to assist Indonesia to exercise the REDD+ implementation and to share best practice of sustainable forest management and markets for forest ecosystem services including carbon, as well as lesson learned to other ITTO member countries. The project is funded by ITTO donor countries: Japan, Switzerland, USA, and Norway.

## Objectives

1. To share information based upon study on sustainable forest management for a fores-based initiative to reduce emissions from deforestation and forest degradation in Indonesia
2. To share Indonesia's forest-based climate change policies.
3. To obtain inputs from consumer and producer of ITTO's member countries on how to strengthen forest-based climate change policies and action plans in Indonesia.

## Participants

The participants of the meeting are representatives of relevant agencies from neighboring countries such as India, Malaysia, Cambodia, The Philippines, Laos, South Korea, and Myamar as well as 90 participants from relevant agencies in Indonesia. In addition, the ITTO representative was also present and delivered a keynote speech to the meeting.

## The Expected Outcome

1. Improve knowledge base of REDD+ including policies, legislations, and initiatives at national and regional level regarding sustainable forest management and climate change mitigation.
2. Best practice methods to obtain the status of reference level/reference emission level from each type of tropical forest.
3. New understanding of the relationship between forest cover, deforestation, forest degradation, and emission reduction.

## Key Issues and Challenges

- REDD+ presents significant opportunities not only to forest community, but also to improve national revenue through best practice of sustainable forest management.
- Sustainable forest management in relation to REDD+
- Climate change mitigation policies and forestry and action plans
- National Action Plan for Reducing GHG Emission from forestry sector

## Summary of Meeting

- The essence of REDD+: Avoid forest degradation and deforestation, maintain carbon stock n conservation forest, and enhance carbon stock. The government of Indonesia is currently undertaking efforts to translate REDD+ into practice through the formulation of National Strategy for REDD+, establishing REL/EL (Reference Emission Level/Reference Level), National Forest Monitoring System, and the implementation of Safeguard Information System.
- The role and potential of forest in climate change: absorb CO2, Hold Solid C in terms of standing biomass, produce sustainable renewable biomass and provide renewable green products.
- Source of CO2 emission from forests: forest fire, illegal logging, overcutting, new development, new sites for agriculture products, and other land use changes.
- Relevant Policies: Reduction of GHG emission and at the same time promote a safe environment, prevent disasters, absorb workforce and increase state's and community's revenues.
- Enhancement of productivity and efficient production of agriculture on peat lands.
- Suppress the rate of forest deforestation and degradation to reduce GHG emission.
- Increase planting to increase GHG absorption and increase efforts to secure forest areas from fire and illegal logging and apply sustainable forest management.
- Business as usual projection versus non-BAU in REDD+

## Recommendations

- Establish safeguard policies to ensure that biodiversity, tenure system, and traditional knowledge will be maintained within REDD+ program.
- Harmonize policy among sectors and level while anticipating population growth and economic development.
- Improve monitoring, transparency, and strengthen governance in implementing sustainable forest management.
- Create more access to carbon market, especially for developing countries, to maximize REDD+ objectives.
- Increase communication and dialogue among stakeholders, parties in the region exercising REDD+ to share lessons learned and best practices.
- Improve support, both capacity and financial, from donor countries to accelerate the implementation of sustainable forest management and climate change mitigation.

# International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia

Jakarta, May 10 – 11, 2012

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## D. MINUTES OF MEETING

# International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia

**INDONESIA'S MINISTRY OF FORESTRY**
**INTERNATIONAL TROPICAL TIMBER ORGANIZATION**
Jakarta, May 10 2012

## MINUTES of MEETING

## OPENING REMARKS

| SUBJECT, SPEAKER | DESCRIPTION / KEY POINTS |
|---|---|
| ***Opening Remarks, Steven Johnson (ITTO)*** | Welcomes participants of the meeting.<br><br>Purpose of workshop: Present results of project in both national and international forum.<br><br>Program established in 2010 to assist ITTO countries to promote sustainable management of forest ecosystem services; funded with 10 million USD of activities.<br><br>Parties work to fight against REDD+ project.<br><br>ITTO's position: Forest will continue to be source of development. Therefore it is important for REDD + to be successful.<br><br>Indonesia is undertaking a vast body of work in REDD + through a range of projects and international aid, to establish baseline of BAU.<br><br>REDD +: Significant opportunities. However, only directed to forest conservation but ignores economic realities in communities. ITTO believes that this project with other initiatives form the best way possible in maintaining and improving carbon balances and ecosystem services provided by forests.<br><br>The results of this project will be disseminated nationally and internationally. |

| SUBJECT, SPEAKER | DESCRIPTION / KEY POINTS |
|---|---|
| ***Opening Remarks, DR. Yeti Rusli (MoF)*** | On behalf of Ministry of Forestry, expresses gratitude and welcomes national and international participants to Jakarta. Extends sincere appreciation to ITTO and donor countries.<br><br>States that this event is important in implementing national effort in achieving national commitment to reduce carbon emission through REDD + as stated in Bali Action Plan.<br><br>Government of Indonesia is committed to reduce emission by 26% to 41% by 2025. Through promotion of sustainable forest managmeent, and |

| | |
|---|---|
| | conservation and enhancement of forest carbon stock. Development Plan emphasizes sustainable and low-carbon.<br><br>Related regulations: Perpres 51&71 on RAN GRK.<br><br>Support from relevant parties and support from international institutions and donor countries are sufficient to fulfill commitment.<br><br>Forest policy must promote sustainability and community empowerment.<br>MoF -> supports pro-growth, pro-poor, pro-job, and pro-environment. Government's principle: transparency, accountability, and participation in REDD +.<br><br>Governancein the context of REDD + : safeguards for conservation and empowerment of local communities and transparency. This is a challenge.<br><br>Welcomes the collaborative initiative between the Indonesian Government and ITTO; expects productive results in the form of recommendations.<br><br>Special hope for ITTO headquarter: to assist in coping and adapt to impact of climate change, and help mitigate. ITTO – International Tropical Timber Organization. Business of timber -> must maintain CO2 cycle and produce green products. Needs to be scaled up together among member countries.<br><br>Hopes this meeting to proceed productively.<br><br>Officially declares the Meeting open. |

## SESSION I

***Moderator: Dr. Ahmad Fauzi - Forest Research Institute, MoF***

| SUBJECT, SPEAKER | DESCRIPTION / KEY POINTS |
|---|---|
| ***Indonesia's Perspective on Climate Change Mitigation in Forestry Sector,***<br>***Doddy Sukadri*** | Subject: Indonesia's Perspective on Global Climate Change Mitigation, especially on Forestry Sector.<br><br>Forestry is part of global carbon emission, more or less contributes to 20%.<br><br>Statistics: IPCC 4$^{th}$ Assessment Report showing contribution of countries to global emission. Another data source: IWR (German Research Institute) showing emission trend; biggest emitters: China and USA. China has doubled its emission over the past 18 years. Indonesia: ranked 19$^{th}$ top emittter.<br><br>Emission rate: linked to economy and population. Bloc division: 51% of global emission comes from Annex I countries, with 75% of global GDP. |

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| | G77: only 19% of global GDP but contributes to 49% of emission.<br><br>Non-annex I countries (China, Brazil, India, Africa). China: 20% of global population, 21% emission. OPEC countries: 5% population, 6% emission.<br><br>McKenzie Study: 14 Gigaton must be reduced to avoid catastrophic impacts of climate change by 2020 (world temperature: not exceeding 2 centigrade).<br><br>REDD+: A mitigation Action.<br><br>*Milestones:*<br>1992: Rio Summit, UNFCCC<br>1995: First COP Meeting.<br>1997: Signing of Kyoto Protocol (First Commitment Period for Annex countries to reduce emission by 5%)<br>2005: COP 11 / MOP 1 RED<br>2007: Bali Action Plan (REDD+) shared vision ***adaptation, mitigation, financing***<br>2009: Copenhagen Accord<br>2010: Cancun Agreement<br>2011: Durban Platform, (Second Commitment Period)<br>2012: Doha<br>2014: Intergovernmental Panel on Climate Change Assessment Report 4<br><br>Principle of *common but differentiated responsibility.*<br><br>Government of Indonesia: translates REDD + into practice.<br><br>Essence of REDD + : Avoid forest degradation and deforestation, maintain carbon stock in conservation forest, enhance carbon stock -> SFM: Sustainable forest, community welfare -> SFM Plus, Net Sink / Balance: Sustainable forest, Community Welfare, Emission Reduction + Biodiversity + PES + Economic Growth<br><br>International Negotiations on REDD +<br>REDD+ Work Programme:<br>1. National Strategy / National Action Plan: to implement REDD + from planning to implementation.<br>2. REL (Reference Emission Level)<br>3. National Forest Monitoring System: MRV.<br>4. Safeguard Information System.<br><br>The Way Forward for Indonesia:<br>The country is going towards “Low Carbon Development Path”<br><br>Conclusion: Holistic approach in which economy and low emission can go hand in hand.<br>CO2 Mitigation and Adaptation<br>Economic Development<br>Institutional enablers to achieve the previous two. |

| SUBJECT, SPEAKER | DESCRIPTION / KEY POINTS |
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| ***Climate Change and Forestry: Indonesia's Policy Within Regional and Global Challenges,*** ***DR. Yetti Rusli*** | Purpose: ITTO project in Indonesia. "Enhancing Forest Carbon Stocks to Reduce Emission from Deforestation and Degradation through Sustainable Forest Management (SFM) Initiative in Indonesia.<br>Objective: Promote SFM as option for forest based climate change mitigation to reduce emission from and by tropical forest.<br>Project Activities: Data Collection, Publication<br><br>*Question: Is forest a remedy for climate change or a problem?*<br>Many still misunderstand the role of forest in climate change.<br>**<u>Trees/Forest and GHG CO2 Cycle</u>**<br>Planting trees: absorbing CO2<br>Managing forest: Holding Solid C in terms of standing biomass.<br>Produce Sustainable Renewable Biomass: absorbs CO2 continuously; providing renewable green products – holding solid C and replace/substitute high CO2 products compared to coal, oil, cement, steel, etc.)<br>Let us think positively about forest and find solution to climate change.<br><br>Almost 77% of CO2 come from using energy power. Only 18% from LULUCF and Forestry.<br><br>FAO Data: At the global level, Forests' role in global carbon:1650 Gigaton more than twice the carbon as in the atmosphere.<br>Sinks 2.6 GtC/yr<br>Sources 1.6 GtC/yr<br><br>Green Economy. UNEP 2011 Publication:<br>- REDD+ regime may be the best current opportunity to facilitate transition to green economy from forestry<br>- Investing 0.03% of GDP between 2011-2050 to manage forest and private investment for deforestation -> 20% increase value added in forest industry compared to BAU<br><br>COP 13, the Bali Action Plan states (1.1.b.iii): "Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries". … REDD+<br><br>Cancun, the UNFCCC COP Decision 1/CP.16 recommendations : encouraging developing country Parties to contribute to greenhouse gas mitigation actions in the forest sector by undertaking REDD-plus activities<br><br>**NATIONAL REGULATIONS**<br>Law No. 6, 1994 on Ratification of UNFCCC<br>Law No. 17 of 2004, Ratification of Kyoto Protocol to UNFCCC<br>Perpres 10,2010 on Moratorium on New Licenses<br>Presidential Regulation No. 61/2011 NAP GHG Emission Reduction<br>Presidential Regulation No. 71/2011 GHG Inventory and MRV |

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| | Indonesia Susatainable Forest Management.<br>Conservation Forest - Production Forest - Protected Forest - Community Forest.<br>Carbon as a new commodity: biomass renewable energy.<br>We should improve maps, remote sensing/satelite image, ground check, inovation, silviculture technology, and new economic analysis.<br><br>**What Indonesia has done:**<br>Worst condition of Indonesian Forest (1996-2000) with 4 million hectare / year of deforestation rate. Reasons: Economic crisis, El Nino.<br><br>2009 deforestation rate: 0.45 million hectare/year.<br><br>Underlines that understanding the source of CO2 emission from forests:<br>- Forest Fire<br>- Encrougment, illegal logging, over cutting, etc.<br>- New development of district, new sites for agriculture products, and other land use changes (Indonesia's palm oil land site from forest only 4.8 m ha out of 136 m ha of forest)<br>*Emission from forest is carbon neutral*<br><br>As developing countries, we need to develop. However, we should maintain to achieve target of emission reduction.<br><br>In order to have significant result from forestry in mitigation and adaptation, we need to consider: IPCC guideline in 2006 does not recognize harvested wood products (still missing from many models).<br><br>We must work together to absorb CO2, plant more trees, etc.<br><br>Opportunities through Voluntary Market: American Carbon Registry is currently setting up mechanisms on carbon market. New methodology to be released in summer 2012.<br>Examples: urban trees planting, supporting insitution is the government.<br>We can start domestically and find a market, on a small-scale.<br><br>Transition: Forestry under window Biomass Energy.<br>Wood pellet, biomethanol<br><br>Indonesia's Innovation: Siviculture Intensive for National Forest Regeneration to improve CO2 Sequestration.<br><br>Conclusion ITTO Member Countries, consisting of Developed, Growing Economy, and Developing Countries should work together in promoting SFM-Based tropical timber, absorbing CO2, Transforming CO2 into Solid Carbon -> Green Products -> GREEN ECONOMY. |

| SUBJECT, SPEAKER | DESCRIPTION / KEY POINTS |
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| ***Indonesia's National Action Plan for Reducing GHG Emission, Basah Hernowo (BAPPENAS)*** | How to Achieve the 26% commitment while at the same time Indonesia has to grow its economy?<br>Sectors that contribute highly to emission: Forestry and Peat Land, Agriculture, Energy and Transportation, Industry, Waste. Manage the 5 sectors to achieve the emission reduction.<br>Regulations:<br>Presidential Regulation No. 61/2011 NAP GHG Emission Reduction<br>Presidential Regulation No. 71/2011 GHG Inventory and MRV<br><br>Scenario to achieve by 2020: Dealing with BAU and action plans to achieve target.<br>Projected: 60% emission reduction can come from managing forestry and peat land. However, this is not easy because our forest area is over 130 m ha, and most of them are not institutionally managed.<br><br>Target of Indonesian Emission Reduction:<br>From Forestry: 0.672 Gt of CO2e.<br>Government intervention and private sector participation to reduce emission.<br><br>**Policies for Forestry and Peat Land:**<br>Reduce GHG while promoting safe environment, prevent disasters, absorb workforce and increase state and community revenue<br>Management of marsh water system and network n marsh area<br>Maintenance of marsh reclamation network including peat lands<br>Enhance productivity and efficient production of agriculture on peat lands with lowest emission and absorb CO2 optimally<br>Suppress rate of forest deforestation (planned) and degradation. 40 m ha of production forest<br>Increase effor to secure forest from fire and illegal logging<br>Land management: Indonesia has 60k ha of peat land, mostly in remote areas with minimum infrastructure.<br><br>**Core Activities until 2014:**<br>- FMU (Forest Management Unit)<br>- Planning for forest area utilization and business improvement<br>- Development of utilization of environmental services<br>- Inauguration of forest areas<br>- Improvement rehabilitation, operation and maintenance of marsh reclamation network (including peat lands)<br>- Management of peat lands for sustainable agriculture.<br><br>*stakeholders to manage forest and peat land areas*<br><br>**Implementing NAP on Emission Reduction**<br>Challenges: limited capacity, capital, technology, etc.<br>Start-up: Policy and regulatory framework, discussions on local level.<br>Synnergy between RAN and RAD GRK. RAN GRK in 5 sectors, to develop Regional Action Plan.<br>Guideline in Formulating RAD GRK -> we can harmonize central and local programs. |

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| | **Principles in formulating RAD GRK**<br>Reflects provincial development strategy and capacity in terms of GHG emission reduction (how much each region can contribute). Example: discussion in Banten Province (big steel industry, limited forest area).<br><br>RAD GRK:<br>- Source and Characteristics of GHG Emission<br>-BAU Bseline GHG Emission<br>- Proposed Mitigation AP<br>- Priority Scale of AP<br>- Funding<br><br>Challenges and Improvement:<br>Limited capacity of government officials, technology Government officials will be trained to formulate provincial baseline<br>Coordination<br><br>**Combining RAN & RAD GRK with National Planning Documents**<br>Harmonizing activities and programs on the central level.<br>FMU is significant as tools and implementors of strategies in the forest and peat land sector. Challenge: establishing 600 FMUs effectively.<br><br>Final remarks: expects a more detailed discussion in this meeting to achieve solution. |

| SUBJECT, SPEAKER | DESCRIPTION / KEY POINTS |
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| ***National Strategy for REDD + in Indonesia, (MoF)*** | Stresses that REDD is still new in the international regime; all countries still in the process of 'learning'.<br><br>***Putting REDD + in the context of national development***<br><br>Indonesia: island country, vulnerable to impact of climate change, population 230 m, prediction in 2030 50% population in production age, located in ring of fire – disaster risk, fertile soil and vast mineral resources, forest area 70% of country's land area.<br><br>Challenge: paradox of emission reduction and development.<br><br>National development objectives:<br>Social – reducing povery to below 10% in 2014 and reduce unemployment to 5% in 2014.<br>Environment – Reduce GHG emission by 26-41% by 2020<br>Economy – 5% growth of per capita income<br><br>50% of global forest located in 5 countries. Indonesia plays important role in national and global context in terms of biodiversity conservation and ghg emission.<br><br>Priority policy in forestry: strengthen legal status of forest area, forest rehabilitation and enhancement of carrying capacity, biodiversity |

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| | conservation, community empowerment, revitalization of forest utilization.<br>Indonesia targets emission reduction at 26 to 41%, whereas 60% comes from forestry sector. On the other hand, we are also targeting to increase timber production (plywood, timber,) by 6 to 7 seven times by 2030.<br><br>**Translating Scope of REDD+ in the National Strategy**<br>**REDD + Indonesia**<br>*We need to be clear on how to define REDD+ Mechanism for Indonesia.*<br>Based on Bali and Cancun Agreement, activities:<br>- Reduce forest conversion.<br>- Reduce emission.<br>- Sustainable management of forest, as forest is not only habitat of flora and fauna but also traditional communities.<br>- Conserving carbon stock. Indonesia: Conservation forest, production is prohibited.<br>- Enhancement of carbon stock. Indonesia: reforestation schemes etc.<br><br>What we need: Safeguards , Technical Support, Methodological Aspects<br><br>**REDD+ and RAN-GRK**<br>To note: some activities can be directly measured in terms of emission quantity but some cannot.<br><br>Indonesia is in the process of developing National Strategy for REDD+ since 2010, currently at the stage of formulating regulatory instrument.<br>Dimensions: Climate Change, Forest Conservation, Economic Growth Overlap<br><br><u>Legal Framework</u><br>REDD + Activities in Indonesia is not only under jurisdiction of MOF,<br>*recommends an agency to coordinate activities*<br><br><u>Strategic Programs</u><br>Sustainable resources management<br><br><u>Shift in Paradigm</u><br>Strengthen governance<br>Empower local community<br>Campaign to safe Indonesia's forests<br><br><u>Engagement of Stakeholders</u><br>Communication<br>Safeguards implementation<br>Benefit sharing, equity<br><br>**CHALLENGING AREAS TO IMPLEMENT NATIONAL STRATEGY**<br>*When our forest occupy the biggest part of our country land, the challenge is to harmonize policy among sectors and levels and anticipating population growth, and others. In addition, with autonomous governance system, the challenge is to coordinate and scale-up units from the smallest to the highest* |

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| | Involvement of stakeholders<br>Lessons from Local experiences and address challenges<br>Select the most appropriate approach<br>Increase transparency<br>Review progress and continue dialogue among stakeholders<br><br><u>Closing Remarks</u><br>Many issues to be addressed for a succesful implementation of REDD+<br>National Strategy for REDD+ is still in the process of finalization<br>Steps: Scaling up, coordination |

| SUBJECT, SPEAKER | DESCRIPTION / KEY POINTS |
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| ***Sustainable Forest Management in Relation to REDD+, Rizaldi Boer (IPB)*** | *It is our responsibility to manage forest (with or without REDD+) in order to ensure sustainable production to meet future demand and secure long-term development*<br><br>Indonesia has been able to reduce deforestation in the last two decades. Highest deforestation rate is in production forest.<br><br>Indonesia has conducted various initiatives to improve forest management. If the implementation of sustainable forest management under the framework of REDD + -> international recognition.<br><br>Elements of REDD + Framework: National Strategy, Reference Emission Level, Reference Level, National Forest Inventory System, MRV, Safeguard Information System.<br><br>**Key Policies related to SFM under the framework of REDD +**<br>- *Improve institutional system to manage forest resources through the establishment of FMU in all forest areas.*<br>Urgency: 40 m ha of forest area in Indonesia is unmanaged, no management system. Licensing to private sector is limited.<br>Benefit: increase the success of land rehabilitation programs, accelerating implementation of community forest management.<br>Establishment Planning: Strategic Plan of MoF 2010-2014 60 units in 5 years. Estimated time projection: 25 years to establish 600 FMUs. Estimated cost: 2.7 billion USD. PRIORITY: ACCELERATION!<br>- *Introduce Mandatory Forest Certification System*<br>Mandatory for all permit holders in state forests, private forests, upstream and downstream wood industries.<br>Purpose: to limit illegal trading of logs and push adopotion of management practices.<br>Other mandatory certifications: ISPO for Palm Oil; Government Regulation of Protecting Atmospheric Function, where all entitites are obliged to have Envionmental Impact Assessment to assess level of GHG emission released from their business acitivities if environmental management is well implemented<br>- *Reduce dependency on natural forests through accelerating establshment of timber plantation on community and state lands*<br>*There is a need to restructure the regulations on forest ecosystem |

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| | restoration considering that (i) ecosystem restoration business is not profit-oriented business so that the treatment should be different from IUPHHKHA, (ii) IUPHHK-RE actually carry out governmnt obligation in restoring, conserving, and preserving forests that nearly have no beneficial products<br><br>- *Reduce pressure on natural forest by optimizing the use of land and improving land productivity* and community livelihood.<br>Scheme: Land swap policy and integration of community empowerment programs from various sector and private (CSR)<br>First step: change function from production to consevation forest.<br>Afterwards: Land swap.<br>Collaboration and Improvement programs.<br>- *Issuing financing/incentive policies and development of financing system to support th four plans.*<br>Incentive system for permit holders in handling land conflict problem and types of the incentive may vary depending on level of clinsflict<br>Simplify process of getting permit and accessing fund from BLU-P3H<br>Special Allocation Funds for conservation forest<br><br>**Development of Reference/Baseline**<br>Baseline is crucial to measure effectiveness of implemented policies. Establish Reference Emission Level (REL)<br>Required Baselines: reference for deforestation, forest degradation, sink enhancement<br>REL for each province. Historical-based emission -> there is a possibility to have difficulties in meeting target of emission reduction.<br>Baselines for Planned deforestation, unplanned deforestation, sink enhancement.<br>**Potential Emission Reduction**<br>**Established Government Efforts**<br><br>**Certification System and National MRV**<br>National Authority to define REL for deforestation, degradation, sink enhancement<br>To quantify impact of emission reduction for purposes of reporting and national communication<br><br>**Development of Safeguard Information System**<br>Responsible Institutions<br>Multi-stakeholder forums: handle complaints that may come up<br><br>**Possible Development to Integrate MRV, SIS, and REDD+**<br>Identify and adjust new indicators into the current certification system<br><br>**Concluding Remarks:**<br>GOI has developed strategies and action plans for SFM which will directly contribute to REDD + |

## DISCUSSION SESSION

| QUESTION /COMMENTS | RESPONSE(S) |
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| **1. Universitas Lampung:**<br>- In details, how will the government scale up carbon target efforts?<br>- Regarding RAD GRK, How to increase local programs in which students from universities and other stakeholders can be directly involved?<br>- Small businesses cannot afford to get certification as it is quite costly. *requests comments on this issue* | - Promote programs and activities. Innovation and technology and apply them in the field. We need investment, and to have investment we need a market. We must work together, between developed and developing countries. (YR)<br>- Current certification is funded by APBN. |
| **2. The Philippines:**<br>- Why was deforestation rate very high during 1996-2000 and what did the government do to solve the problem?<br>- In the national document, there is no national plan to finance and where will research and development be placed ? Will it be in the same component with safeguard | - Reasons include forest fire and El Nino. (DS)<br>- Some programs are already incorporated under the Forestry Program. Some are financed with government budget, some through bilateral and multilateral funds. (N)<br>- Research and Development need to be done to address the whole component, so it is not placed in a specific division. (N) |
| **3. UGM:**<br>- Do we need specific strategy and approach for a sustainable peat land and forest management? Challenges: peat land heavier than terrestrial, recovery time is longer. | - We are not only talking about technicality, but also economic and political issues. However, the basics are simple: we have to agree with simple things. (YR) |
| **4. Ministry of Agriculture:**<br>- What is the key message ("tagline") that we can all understand? | - To promote sustainable forest management in terms of climate change. (YR)<br>- Many efforts have been conducted, but in order to get recognition, we must meet the 4 frameworks. We must set up baseline/reference, MRV. (RB) |
| **5. Private Sector in Pulp and Paper Industry:**<br>Since 2005, we have brokered and collaborated to avoid conversion of peat swamp forest .<br>Under the institutional arrangement to reach out to local communities, we have implemented programs to jump starting capacity building. *Requests further clarification on PES* | - PES:Design concrete action that can provide environmental service. (N)<br>- MoF is currently coordinating a safeguard. We are trying to look at the instruments applied in Indonesia and how they will be implemented. (N)<br>- REDD + Communities in livelihood. Challenge is to accelerate programs of community empowerment in the area. For a company to be recognized as REDD + activity: must have baseline and monitoring system. Purpose of certification: to standardize mechanisms. (RB) |

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| **6. Provincial Forestry Service in Indonesia, Central Kalimantan**<br>- Degradation is related to quality of forest whereas deforestation is related to area. Deforestation is not caused by forestry. Question: how can we stop<br>- National Strategy is not ready. As pilot province for REDD +, we have finalized our action plan and strategy.<br>- Disagrees | - Notes taken on comments. (YR)<br>- We have been blamed by the global community as tropical forest countries are required to do various things. However, climate change is a global issue and it is not the problem of a specific region or country. Therefore each country has equal responsibility to mitigate and adapt climate change. There is the principle of common but differentiated responsibility according to respectivecapacity. This implies that we have to contribute according to our own capacity. Stresses that this is a MORAL obligation, not political or economic. (DS) |

# ANNEXES

## E. LIST OF PARTICIPANTS

Indonesia MoF - ITTO

International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia

May 10 & 11, 2012 - Menara Peninsula Hotel, Jakarta

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Indonesia MoF - ITTO
International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia
May 10 & 11, 2012 - Menara Peninsula Hotel, Jakarta

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# ANNEXES

# F. PRESENTATIONS

**International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia**

# ANNEXES F
# PRESENTATIONS

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## Indonesia's Perspective on The Global Climate Change Mitigation: Forestry Sector

*Rahmat Witoelar / Dr. Doddy Sukadri*
*(National Council for Climate Change)*

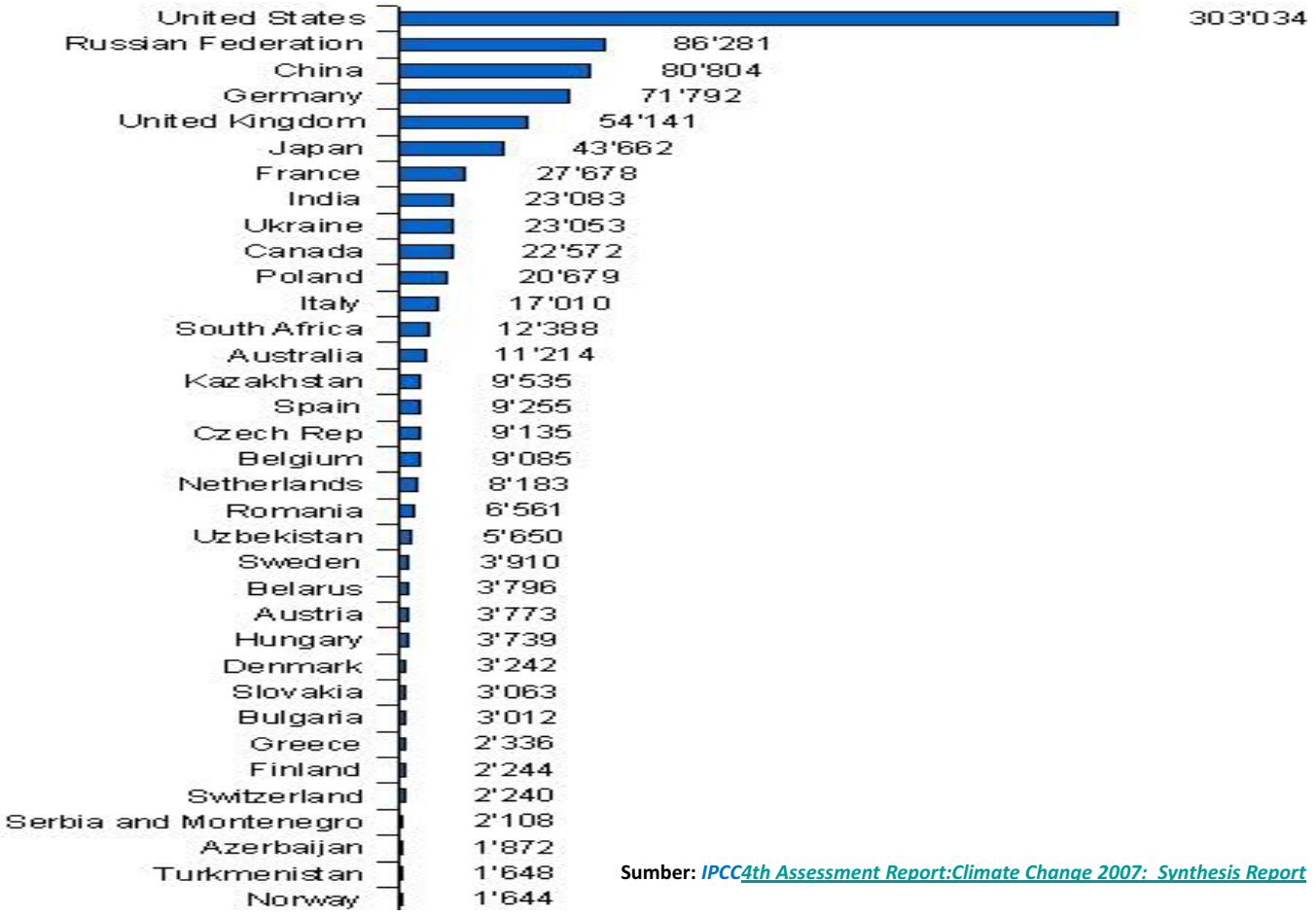

# INDONESIA'S PERSPECTIVE ON THE GLOBAL CLIMATE CHANGE MITIGATION: FORESTRY SECTOR

*Rachmat Witoelar and Doddy Sukadri*
Indonesia' National Council on Climate Change
(The DNPI)

Jakarta, 10 May 2012

## Global Carbon Emission

# Cumulative CO2 emissions 1900 - 2002




**Sumber:** *IPCC4th Assessment Report:Climate Change 2007: Synthesis Report*

| | Country | 1990 $CO_2$ (Mill. t) | 2008 $CO_2$ (Mill. t) | Change 1990-2008 (%) |
|---|---|---|---|---|
| 1. | China | 2452 | 6809.7 | +178 |
| 2. | USA | 5461 | 6369.8 | + 17 |
| 3. | Russia | 2369 | 1687.6 | - 29 |
| 4. | India | 626 | 1408.5 | +125 |
| 5. | Japan | 1179 | 1391.5 | + 18 |
| 6. | Germany | 1029 | 857.3 | - 17 |
| 7. | South Korea | 257 | 663.5 | + 158 |
| 8. | Canada | 485 | 658.3 | + 44 |
| 9. | Great Britain | 625 | 581.8 | - 6 |
| 10. | Iran | 199 | 513.5 | |
| 11. | Saudi-Arabia | 242 | 490.7 | |
| 12. | Italy | 440 | 482.8 | |
| 13. | South Africa | 329 | | |
| 14. | Mexiko | 283 | | + 62 |
| 15. | Brazil | | | + 79 |
| 16. | France | | | + 3 |
| 17. | Australia | | 381.6 | + 37 |
| 18. | Spain | | 380.0 | + 60 |
| 19. | Indonesia | 151 | 376.7 | + 149 |
| 20. | Taiwan | 136 | 340.0 | + 150 |

**China has been demonstrating an incridible increasing emission rate for the last 18 years**

# Emission, Economy, and Population

51% emission
75% GDP
19% population

Annex I

42% emission
19% GDP
76% population

G77

Source: NY Times, data: 2007

# Emission, economy, and population of Non- Annex I

21% emission; 6% GDP
20% population

CHINA

6% emission; 4% GDP
20% population

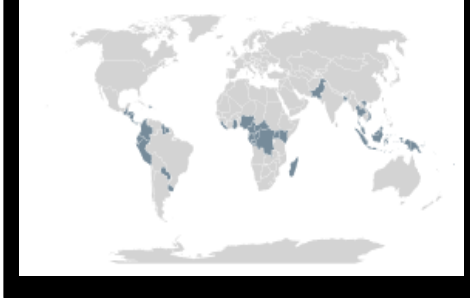
BRAZIL AND INDIA

3% emission; 2% GDP
13% population

AFRICA

4% emission; 3% GDP
19% population

RAINFOREST COALITION

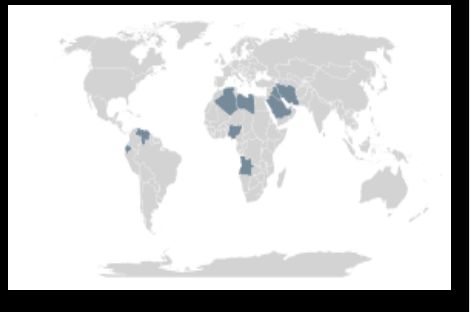


1% emission; 1% GDP ;
1% population

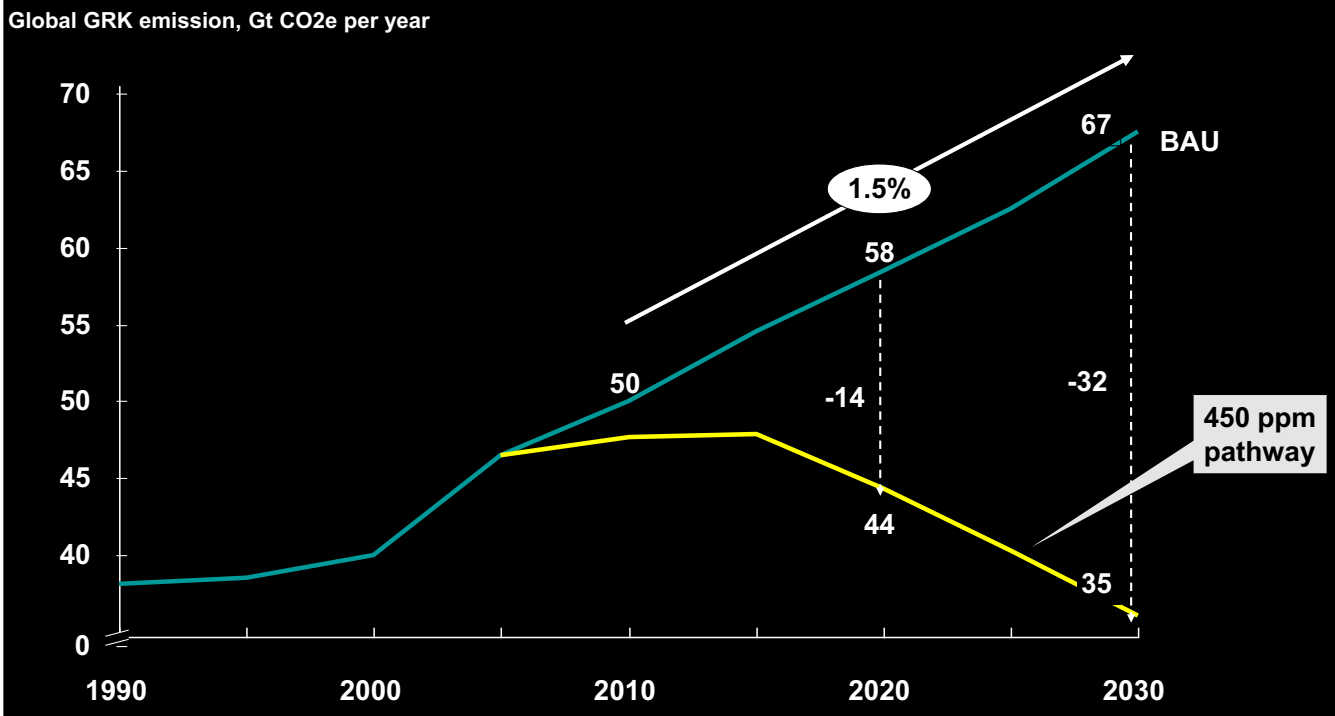
SMALL ISLAND STATES

6% of emission; 2% GDP;
5% population

OPEC



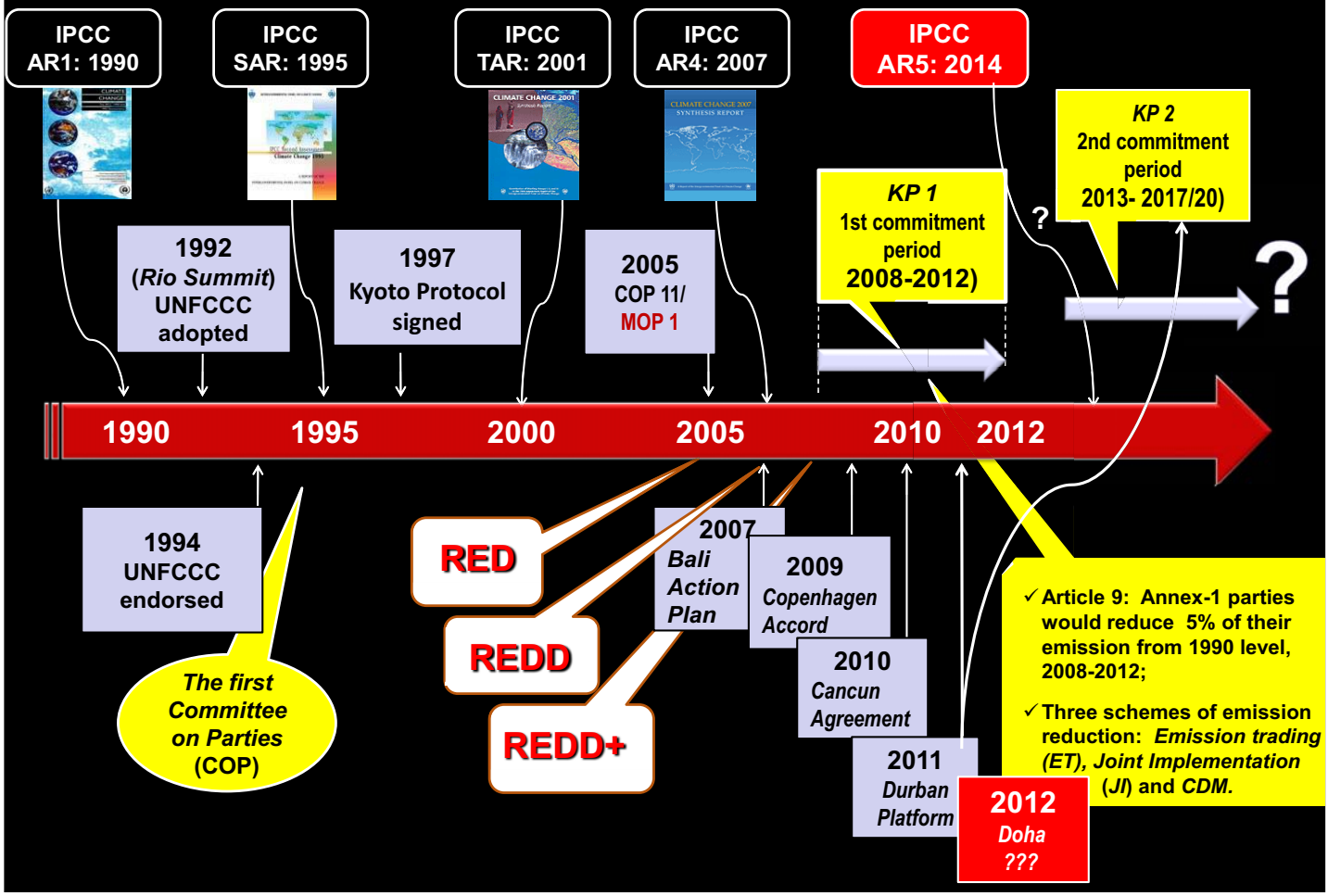
## Scientific evidents advise that substantial emission reduction is needed to avoid catastropic impacts of climate change



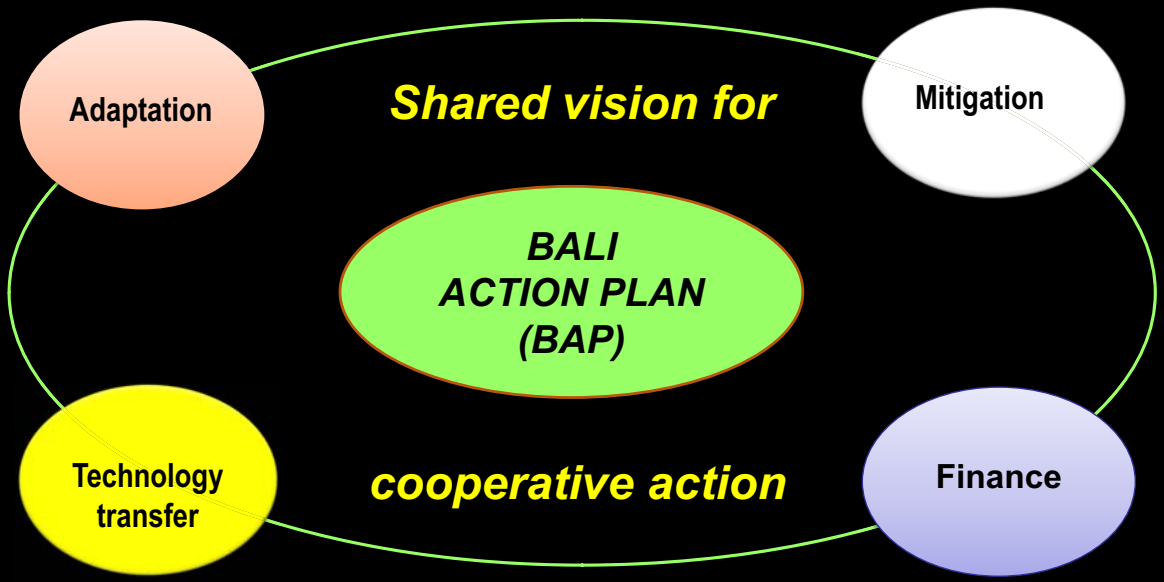

- 450 ppm is a GHG treshold content in the atmosphere (with probability of 40–60%) to keep the temperature increase not to exceed 2°C

# REDD+: A Mitigation Action

# From Rio to Bali to Doha

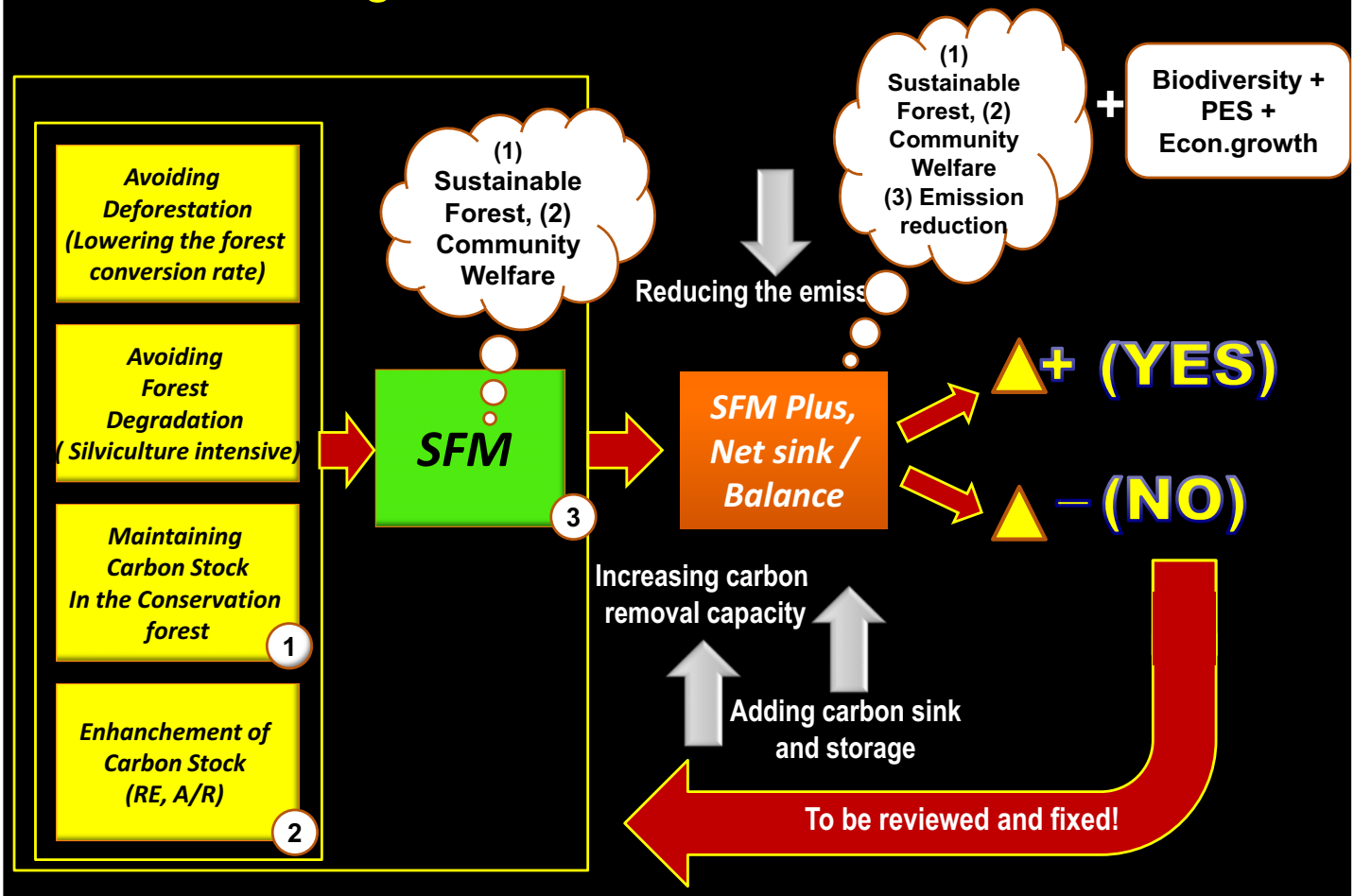



# The four building blocks of Bali Action Plan

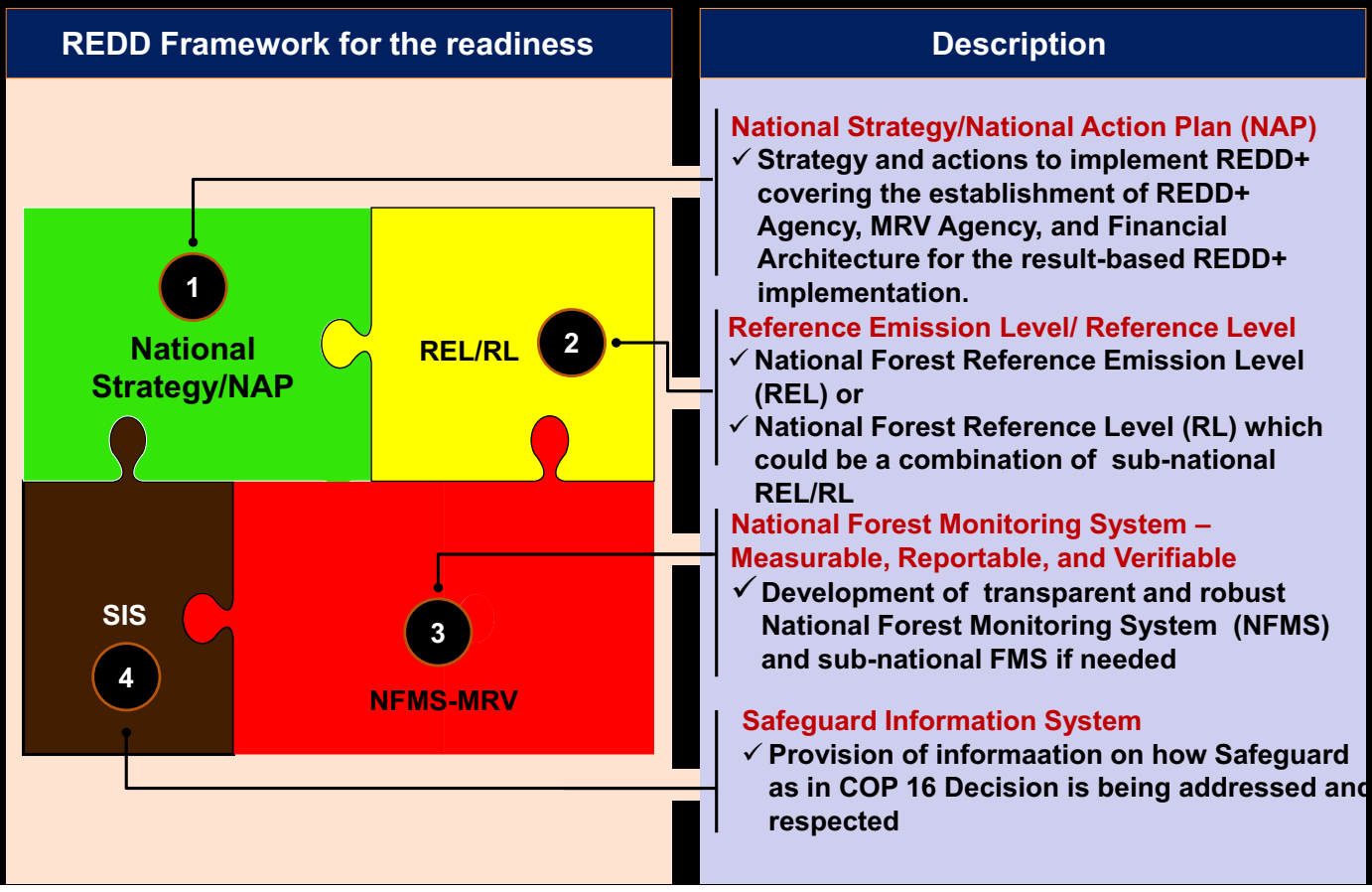



- ✓ *…..Each of the Party country responsibles to reduce GHG emission, taking into account the principle of CBDR (Common But Differentiated Responsibilities and Respective Capacities -CBDR).*
- ✓ *Developed countries have to take a lead in handling the climate change and its negative impacts*

# Translating REDD+ into Indonesia's SFM Practices

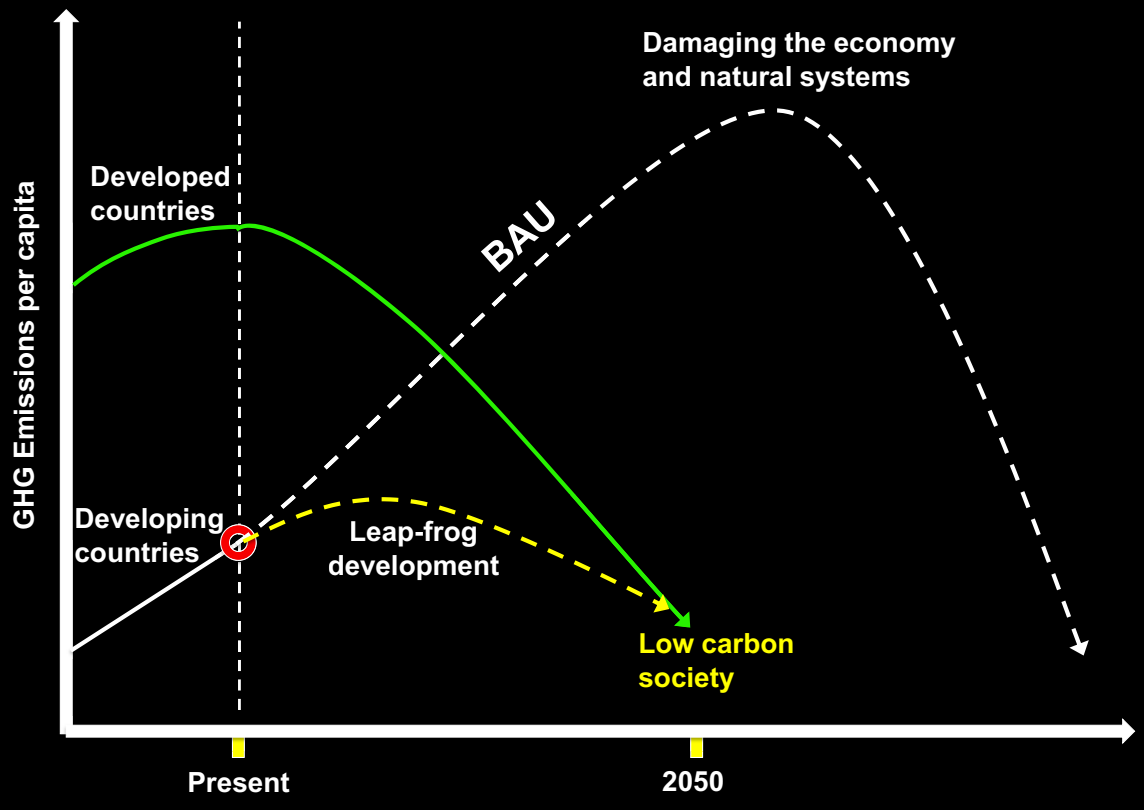



# REDD+ Work Programme



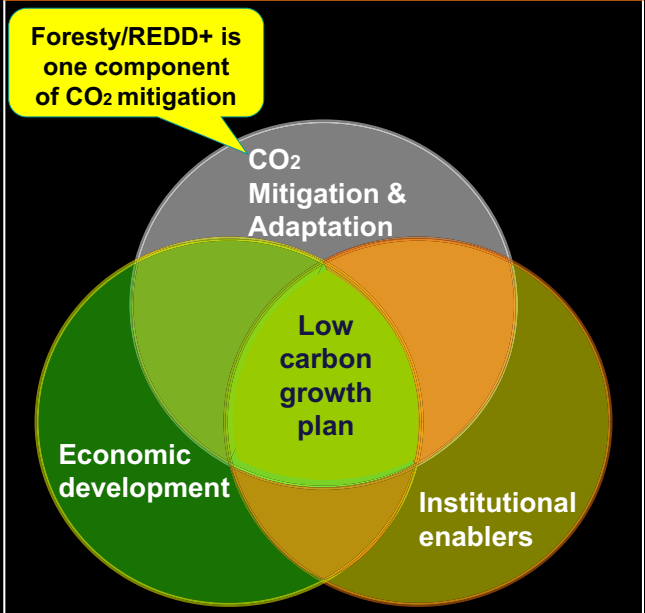
# The way forward

## Low Carbon Development path



# A holistic approach to low carbon growth is needed in which economic growth and CO2 mitigation go hand in hand

## Framework for Low-Carbon Growth Plan




## Key elements

**CO2 Mitigation and adaptation**

- Estimate the size of current and future emissions (including REDD+)
- Assess the technical abatement potential and feasibility, and implementation cost of individual mitigation initiatives

**Economic development**

- Analyse existing competitive strengths and weaknesses;
- Explore potential new sources of growth (requiring less carbon emissions)

**Institutional enablers**

- Develop strategy for critical enablers (e.g., monitoring and evaluation, spatial planning, community engagement)
- Estimate the total costs of realizing these opportunities.

# Together we can save the earth

*Thank you..*

International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia

# ANNEXES F
# PRESENTATIONS

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## Indonesia's National Action Plans for Reducing Green House Gases Emissions

*Dr. Basah Hernowo*
*(Indonesia's National Planning Agency)*

# Indonesia's National Action Plan for Reducing GHG Emission

**Basah Hernowo**
**Director for Forestry and Water Resource Conservation**
**Ministry of National Development Planning/BAPPENAS**

Presented on Forest-Based Climate Change Policies and Action Plans in Indonesia
Jakarta, May 10, 2012


Rawa Aopa National Park


Macrocephalon Maleo

## NAP GHG Emission Reduction (RAN GRK)


Kelimutu National Park

# Climate Change Mitigation


Nycticebus Javanicus

The NAP for GHG Emission Reduction (RAN-GRK) is the workplan document for the implementation of activities to reduce GHG emission in accordance with the national development targets.

Commitment of Indonesia
in G-20 Pittsburgh and COP 15 2009
Reducing GHG emission by 2020

**26%**
Domestic Effort

**26+15=41%**
Domestic Effort and International Support

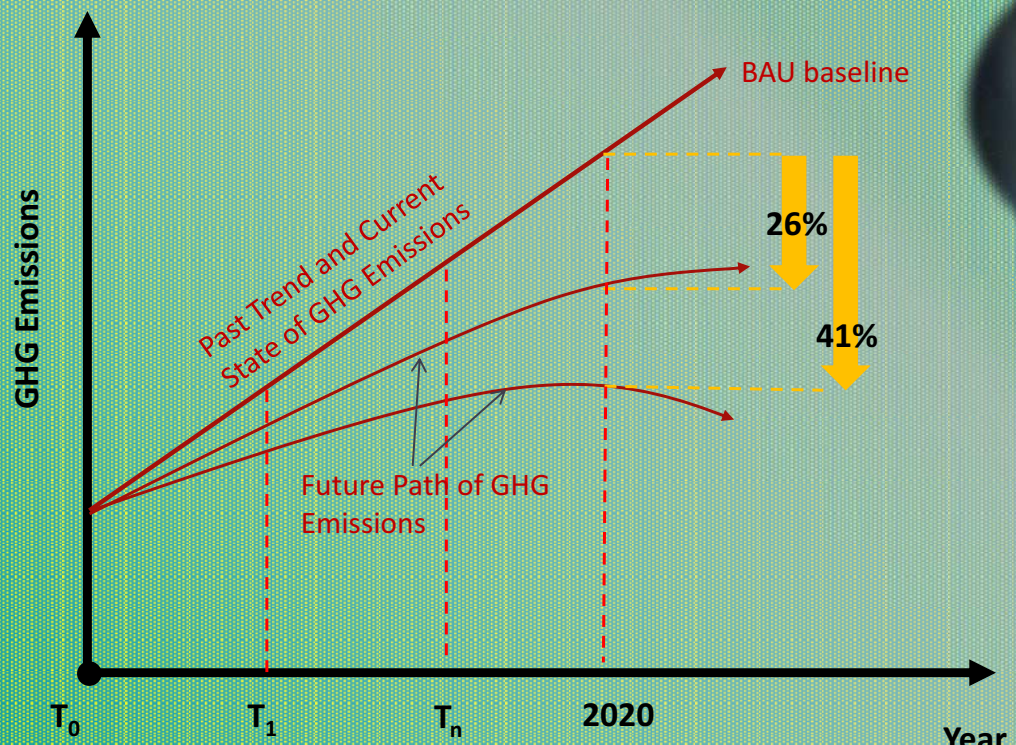
**Presidential Regulation No. 61/2011 NAP GHG Emission Reduction**

**Presidential Regulation No. 71/2011 GHG Inventory and MRV**

- FORESTRY AND PEATLAND
- AGRICULTURE
- ENERGY AND TRANSPORTATION
- INDUSTRY
- WASTE

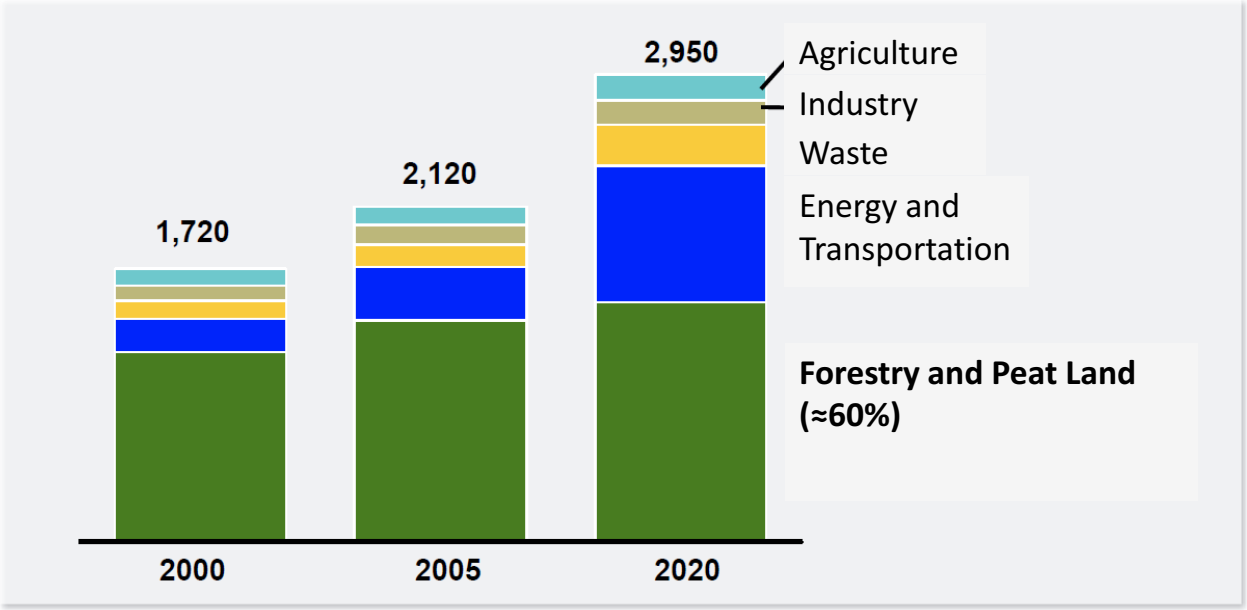
# Reducing GHG Emission by 2020


Nasalis Larvatus



# Forestry and Peat Land in reducing the emission

Projected emissions of business as usual
(in Mt CO2e




Source: SNC, 2010: Indonesia Second National Communication, Under UNFCCC, Ministry of Environment, Republic of Indonesia, Jakarta, November 2010

# Targets of Indonesia Emission Reduction

| Sector | Reduction Target (Gton CO2e) | |
|---|---|---|
| | **26%** | **41%** |
| Forestry and Peat Land | 0.672 | 1.039 |
| Agriculture | 0.008 | 0.011 |
| Energy and Transportation | 0.036 | 0.056 |
| Industry | 0.001 | 0.005 |
| Waste Management | 0.048 | 0.078 |
| **Total** | **0.767** | **1.189** |

# Policies for Forestry and Peat Land Sector

- Reduction of GHG and at the same time promote a safe environment, prevent disasters, absorb workforce and increase state's and community's revenues
- Management of marsh water system and network in marsh area
- Maintenance of marsh reclamation network (including the existing peat lands)
- Enhancement of productivity and efficient production of agriculture on peat lands with lowest emission and absorb CO2 optimally

# Strategies for Forestry and Peat Land Sectors

- Suppress the rate of forest deforestation and degradation to reduce GHG emissions
- Increase planting to increase GHGs absorption
- Increase the efforts to secure forest areas from fire and illegal loggings and apply sustainable forest management
- Conduct improvement on water system (network) and dividing blocks and stabilize water level elevation on marsh water system network
- Optimise land and water resources without deforestation
- Apply land management and agricultural farming technologies that have lowest GHG emissions and can absorb $CO_2$ optimally

# Core Activities

| NO | Action Plan | Period | Indication of Emission Reduction (million ton of $CO_2e$) | Responsible Institution |
|---|---|---|---|---|
| 1. | Establishment of a Forest Management Unit (FMU) | 2010 -2014 | 31.15 | Ministry of Forestry |
| 2. | Planning for forest area utilization and business improvement | 2010 - 2014 | 24.32 | Ministry of Forestry |
| 3. | Development of a utilization of environmental services | 2010-2014 | 3.67 | Ministry of Forestry |
| 4. | Inauguration of forest areas | 2010-2014 | 123.41 | Ministry of Forestry |
| 5. | Improvement rehabilitation, operation and maintenance of marsh reclamation network (including peat lands) | 2010-2014 | 5.23 | Ministry of Public Works |
| 6. | Management of peat lands for a sustainable agriculture | 2011-2020 | 103.98 | Ministry of Agriculture |

# Core Activities

| NO | Action Plan | Period | Indication of Emission Reduction (million ton of $CO_2e$) | Responsible Institution |
|---|---|---|---|---|
| 7. | Development of agricultural land management in abandoned and degraded peat land areas to support plantation, animal raising and horticulture sub-sectors | 2011 - 2014 | 100.75 | Ministry of Agriculture |
| 8. | Implementation of a forest and land rehabilitation and forest reclamation in the prioritized watershed | 2010 - 2014 | 91.75 | Ministry of Forestry |
| 9. | Development of social forestry | 2010 - 2014 | 100.93 | Min. of Forestry |
| 10. | Forest fire control | 2010-2014 | 21.77 | Min. of Forestry |
| 11. | Forest investigation and protection | 2010 - 2015 | 2.30 | Min. of Forestry |
| 12. | Development of conservation and essential ecosystem areas and management of protected forests | 2010-2014 | 91.27 | Ministry of Forestry |
| 13. | Enhancement of plantation forest businesses | 2010-2014 | 110.10 | Ministry of Forestry |

# Supporting Activities

| NO | Action Plan | Period | Responsible Institution |
|---|---|---|---|
| 1. | Survey and data collection on hydrology and geo-hydrology of peat lands | 2010-2014 | Ministry of Public Works |
| 2. | Identification of marsh lands for cultivation and conservation | 2010-2014 | Bappenas /Ministry of Public Works |
| 3. | Research on water system in peat lands | 2010-2014 | Ministry of Public Works |
| 4. | Formulation of Presidential Regulations on National Strategic Zones and Island Spatial Planning | 2010-2014 | Ministry of Public Works |
| 5. | Formulation of river Regional Spatial Planning | 2010-2014 | Ministry of Public Works |
| 6. | Provincial region spatial audit (stock taking) | 2010-2014 | Ministry of Public Works |
| 7. | Spatial planning data and information gathering | 2010-2014 | Ministry of Public Works |

# Supporting Activities

| NO | Action Plan | Period | Responsible Institution |
|---|---|---|---|
| 8. | Monitoringthe evaluation of national and island RSPs and national infrastructure programs | 2010-2014 | Ministry of Public Works |
| 9. | Acceleration of the stipulation of Regional Regulation on Province and Regency/City RSPs based on Strategic Environmental Assessment (SEA) | 2010-2014 | Ministry of Public Works |
| 10. | Control the non-forestry related uses of forest areas | 2010-2014 | Ministry of Forestry |
| 11. | Forest Resources Inventory and Monitoring | 2010-2014 | Ministry of Forestry |
| 12. | Research and development on forestry climate change policy | 2010-2014 | Ministry of Forestry |
| 13. | Formulation of the standard criteria of Peat Ecosystem Damage | 2010-2014 | Ministry of Environment |

# Supporting Activities

| NO | Action Plan | Period | Responsible Institution |
|---|---|---|---|
| 14. | Formulation of the Master Plan of Province Peat Ecosystem MAnagement | 2010-2015 | Ministry of Environment |
| 15. | Inventory and mapping of peat ecosystem's hydrological entity | 2010-2014 | Ministry of Environment |
| 16. | Inventory and mapping of peat ecosystem characteristics | 2010-2014 | Ministry of Environment |
| 17. | Research and development on low emission technology, MRV methodology on agricultural areas in peat land | 2011-2014 | Ministry of Agriculture |

Baluran National Park

# How to Implement RAN GRK??

# Implementation Plan of RAN GRK

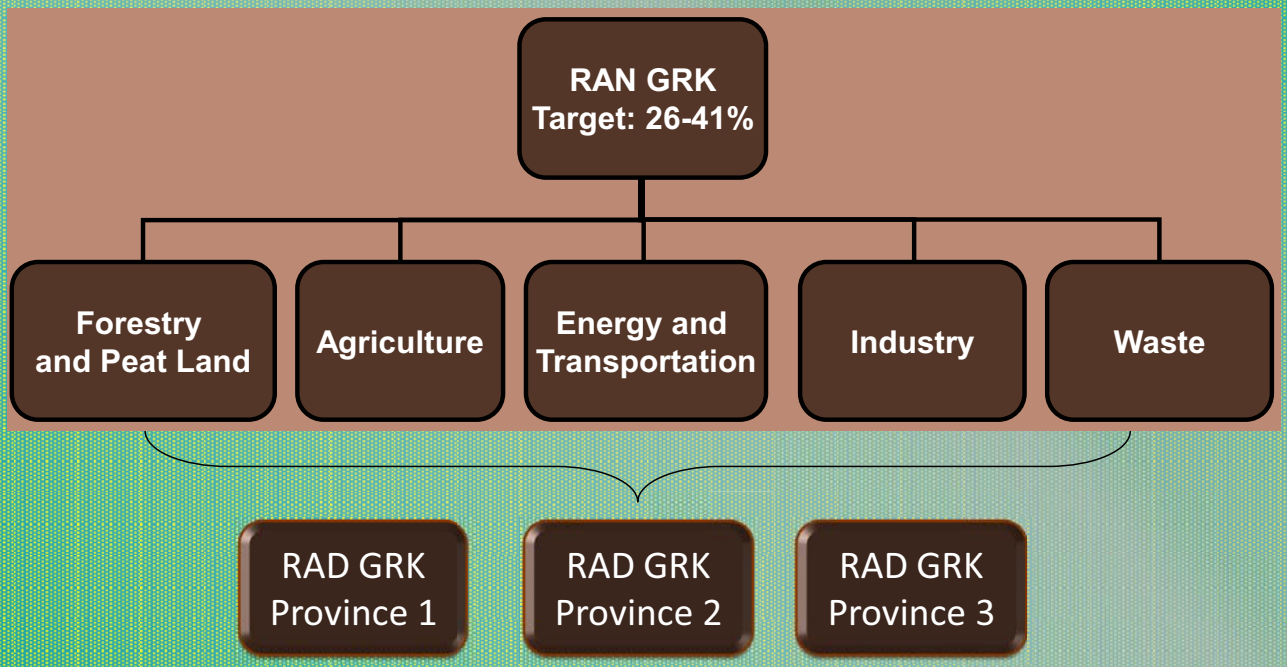
1. **Coordination of the RAN GRK implementation with national stakeholders**
   a. Establishment of Coordination Team (WG per sector)
   b. Agreement on methodology and measurement (indicators)
   c. Agreement on MRV system (Presidential Regulation No. 71/2011)
2. **Coordination of the RAN GRK implementation with local stakeholders**
   a. Establishment of WG in provincial level
   b. Socialization and assistance
   c. RAD GRK (Provincial Action Plan for GHG Emission Reduction) is part of RAN GRK to support the achievement of emission reduction target of Indonesia
3. **Cooperation/networking with the Universities, NGO, and strategic groups**

# RAN GRK and RAD GRK*

| 2009 | 2010-2011 | 2012 |
|---|---|---|
| Indonesia's commitment to reduce the GHG emissions 26%-41% by 2020 | RAN GRK had been formulated since 2009<br><br>PERPRES NO. 61/2011 on The NAP for GHG Emission Reduction (RAN GRK) | Guideline for formulation of RAD GRK<br><br>RAD GRK of each province is expected to be finalized in 2012 |
| ↓ | ↓ | ↓ |
| COMMITMENT FOR LOW CARBON DEVELOPMENT WITHOUT OMITTING ECONOMIC GROWTH | THE COMMITMENT IS ELABORATED TO REAL NATIONAL ACTIVITIES THROUGH FIVE MAIN SECTORS | THE ELABORATION OF COMMITMENT TO REDUCE THE GHG EMISSION IN PROVINCIAL LEVEL → TO SUPPORT THE ACHIEVEMENT OF NATIONAL EMISSION REDUCTION |

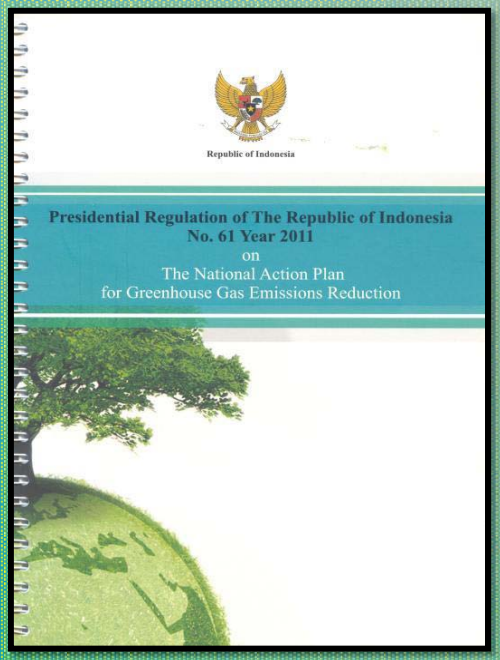
*** RAD GRK : Provincial Action Plan for GHG Emission Reduction**

# Sinergy between RAN and RAD GRK




**RAD-GRK is part of RAN-GRK**

# Guideline in formulating RAD GRK




RAN-GRK

**Guideline was launched on 12 January 2012**


Guideline of RAD-GRK

# Principles in formulating RAD GRK

a) RAD-GRK is a reflection of the provincial development strategy (as well as Kabupaten/Kota) in term of GHG emission reduction

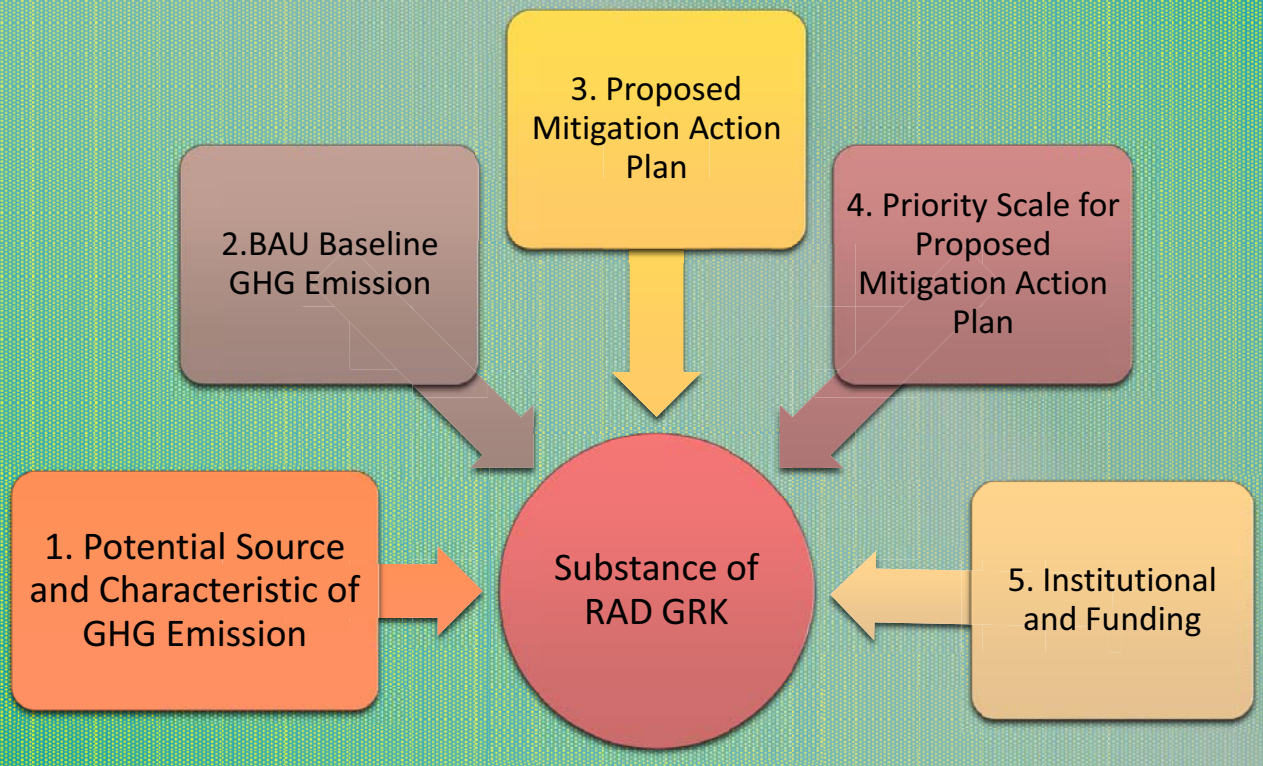
b) RAD-GRK does not hinder the economic growth and poverty alleviation. RAN GRK prioritizes the people's welfare to achieve sustainable development

c) RAD-GRK is an integrated action plan between one sector and other sectors with high concern on all aspects of sustainable development (such as carrying capacity, environment capacity, spatial plan, and land use plan)

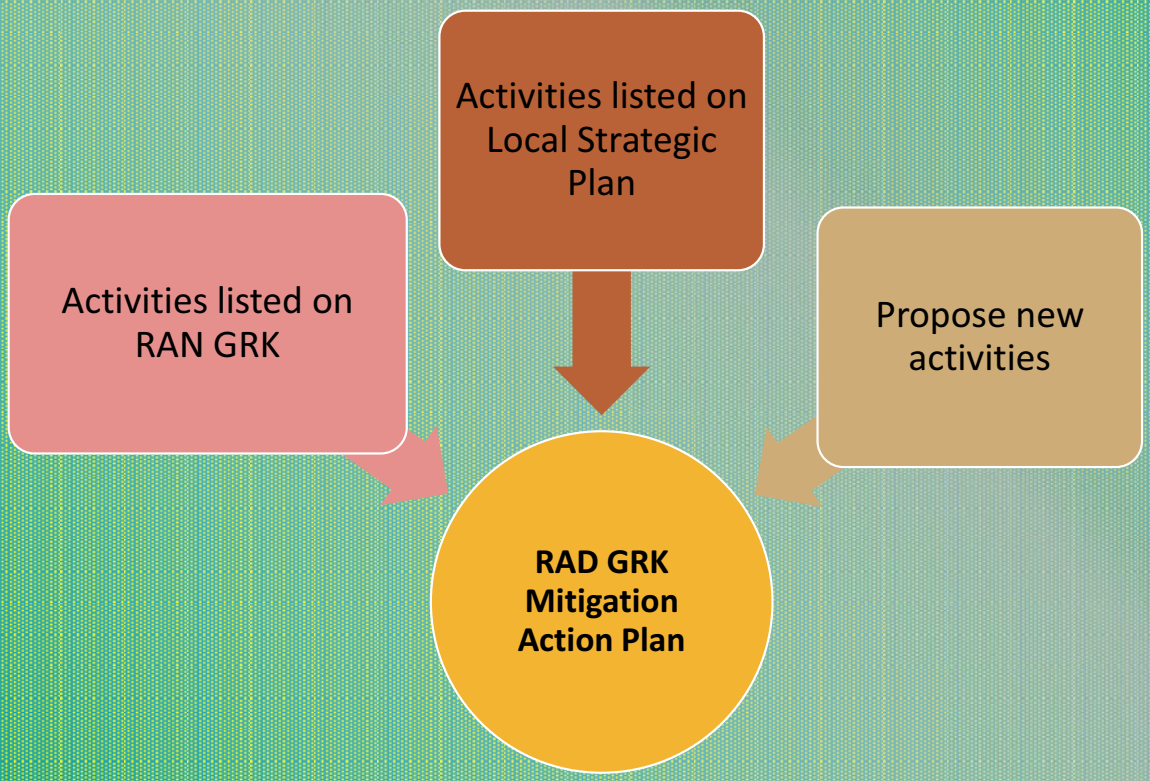
d) RAD-GRK is the commitment as well as contribution from local government (Provincial/Kabupaten/Kota) on Indonesia's commitment in reducing the GHG emission to attain clean and low emission life, and sustainable development

e) RAD-GRK is the local action plan with new approach in development and high concern on the efforts to reduce the GHG emissions

# Substance of RAD GRK



# Proposed Mitigation Action Plan




# Stakeholders Involvement

**RAN GRK**

- Ministry of Coordination on Economy
- Ministry of National Development Planning
- Ministry of Home Affairs
- Ministry of Environment
- Ministry of Coordination on People's Welfare
- Other Ministries
- Governors

**RAD GRK**

**Coordination Team**

- Governor
- Secretary of provincial government
- Provincial Development Planning Agency
- SKPD

**Working Groups**

- SKPD
- Private sector
- University
- NGO

# Current Status

a) RAD GRK is now being formulated by each provincial government. It is targeted to be accomplished by September 2012 (according to the mandate on Presidential Regulation No. 61 Year 2011).

b) The Ministerial Decree on the Steering Committee has been established. The Steering Committee facilitates the coordination in national level:

   a) Facilitate for private and society activities

   b) MRV coordination

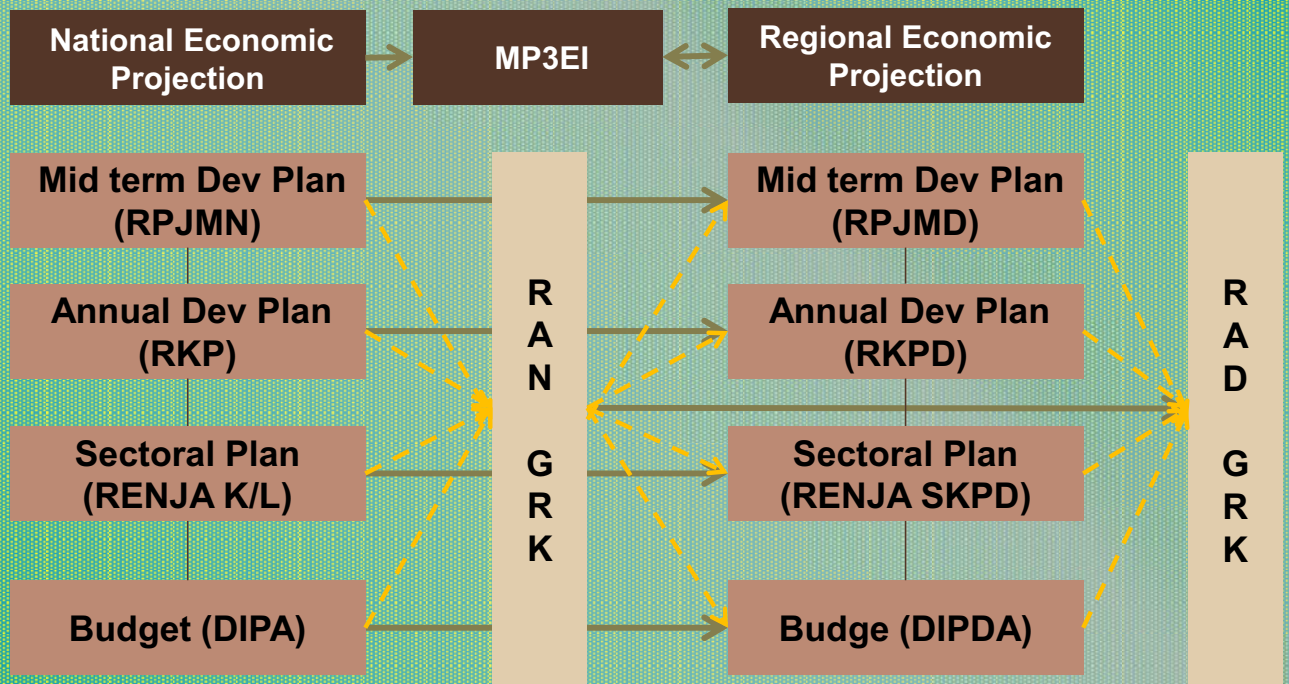
   c) Monitoring on target achievement

c) The provincial government officials will be trained to formulate the provincial Baseline for RAD GRK (May 2012)

**What is the relation between RAN & RAD GRK and other development planning documents?**

Kerinci Seblat National Park

# RAN & RAD GRK in Economic Development




**Note:**
*** MP3EI : Masterplan Acceleration and Expansion of Indonesia Economic Development**


Lore Lindu National Park

## What is the relation between RAN & RAD GRK and RAN & RAD REDD+?

# Mainstreaming REDD+ into National Planning System

**REDD+ National Strategy**

**FIVE PILLARS:**

1. Institutional development and its process
2. Law Enforcement and Regulatory Framework
3. Strategic Programs
   a. Sustainable Landscape Management
   b. Implementation of sustainable natural resources economic system
   c. Conservation and rehabilitation
4. Shift in paradigm and work culture
5. Engage multi-stakeholders

breakdown into

**REDD+ National Action Plan**

- Terminology of programs and activities used in the action plan must be clear and operational
- Locations for each activity must be defined
- Volume of each activity must be defined

Mainstream into

- RPJMN
- RKP
- Implementation of MP3EI

Working Group 9 Task Force REDD+ Mainstreaming REDD+ into National Planning System

# Mainstreaming REDD+ into National Planning System

- RPJMN
- RKP
- MP3EI

harmonization ≈

RAN GRK

RAD GRK
RAD GRK
RAD GRK
RAD GRK
RAD GRK
RAD GRK
RAD GRK

≈ harmonization

AGRICULTURE

FORESTRY AND PEAT LAND

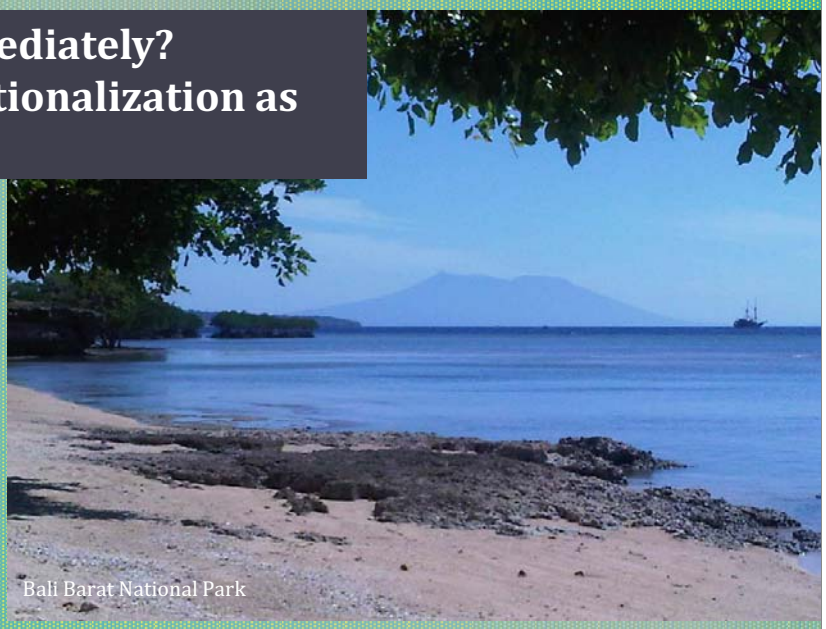
LAND BASED MITIGATION

ENERGY AND TRANSPORTATION

INDUSTRY

WASTE MANAGEMENT

## What needs to be done immediately? Accelerating the FMU operationalization as the main key for SFM


Bali Barat National Park

## Why Forest Management Units are important?

1. Currently, out of 132 million ha forest area, about 43 million ha are not under any management units
2. Forests are renewable natural resources
3. Forestry activities are aligned with the Indonesian culture as agrarian country
4. Indonesia as tropical country possesses comparative advantages in forestry sector (including the forward linkage sectors)
5. Forestry covers huge aspects of activities and products:
   - Botanical forest product: medicinal and pharmaceutical products, herb and vegetables, craft related products, etc → Non Timber Forest Product
   - Silviculture: planting, nurseries, surveying, brushing and weeding, spacing, pruning, commercial thinning, site preparation, fertilization, cone collection,
   - Primary manufacturing: lumber, logs, pulp and paper, chip production, plywood, shakes and shingles, kiln drying, poles and piling, fibreboard
   - Secondary manufacturing: furniture, wood paneling, spindles, windows and doors, siding, pallets, specialty paper, etc
6. Forestry sector provides wide opportunities for employment
7. Forest is a sustainable source for local revenue

## What are the benefits of FMUs operationalization?

1. Optimalization of the utilization of forest resources
2. Improvement the investment from private sectors
3. Reducing the encroachment and other illegal activities in forestry sector because of the managers' existence in the field
4. Increasing the community legal access in the forest area under FMUs → social forestry
5. Decreasing the deforestation rate and forest degradation rate
6. **Reducing the emission and enhance the carbon stock globally through the implementation of SFM principles**

**International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia**

# ANNEXES F
# PRESENTATIONS

---

## Climate Change & Forestry: Indonesia's Policy within Regional and Global Challenges

*Dr. Yetti Rusli*
*(Senior Advisor to the Minister of Forestry on Environment and Climate Change)*

# CLIMATE CHANGE and FORESTRY: *Indonesia's Policy within Regional and Global Challenges*

Dr. YETTI RUSLI MSc.
- Senior Adviser to the Minister of Forestry on Environment & Climate Change
- Chairperson of Forestry Climate Change Working Group

International Meeting, ITTO Project RED-PD 007/09 Rev.2 (F), May 10, 2012
Jakarta

FCC WG Indonesia

YR@YETTI RUSLI

## Project Framework
## RED-PD 007/09 Rev. 2 (F)

***Enhancing Forest Carbon Stocks to Reduce Emission from Deforestation and Degradation through Sustainable Forest Management (SFM) Initiatives in Indonesia***

**OBJECTIVES**

**Development Objective**

To promote the SFM as important option for forest based climate change mitigation – to reduce emission from and by tropical forest

**Specific objectives**

**Output 1.**

Data/Information concerning SFM, forest based carbon, C stock, CO2 sequestration, and green products is assessed

a) Study and analyze all regulations concerning SFM, forest based carbon, C stock, CO2 sequestration and green product

b) Develop public consultation series on SFM, forest based carbon, C stock, CO2 sequestration and green product

**Output 2.**

Supporting infrastructure and mechanism to bring additional incentives in implementing SFM as important option in reducing emission from deforestation and forest degradation available

a) Conduct study and analysis on economic incentive framework of SFM as important option for forest based climate change mitigation - to reduce emission from and by tropical forest

b) Conduct study and analysis on economic incentive framework of SFM as important option for forest based climate change mitigation - to reduce emission from and by tropical forest

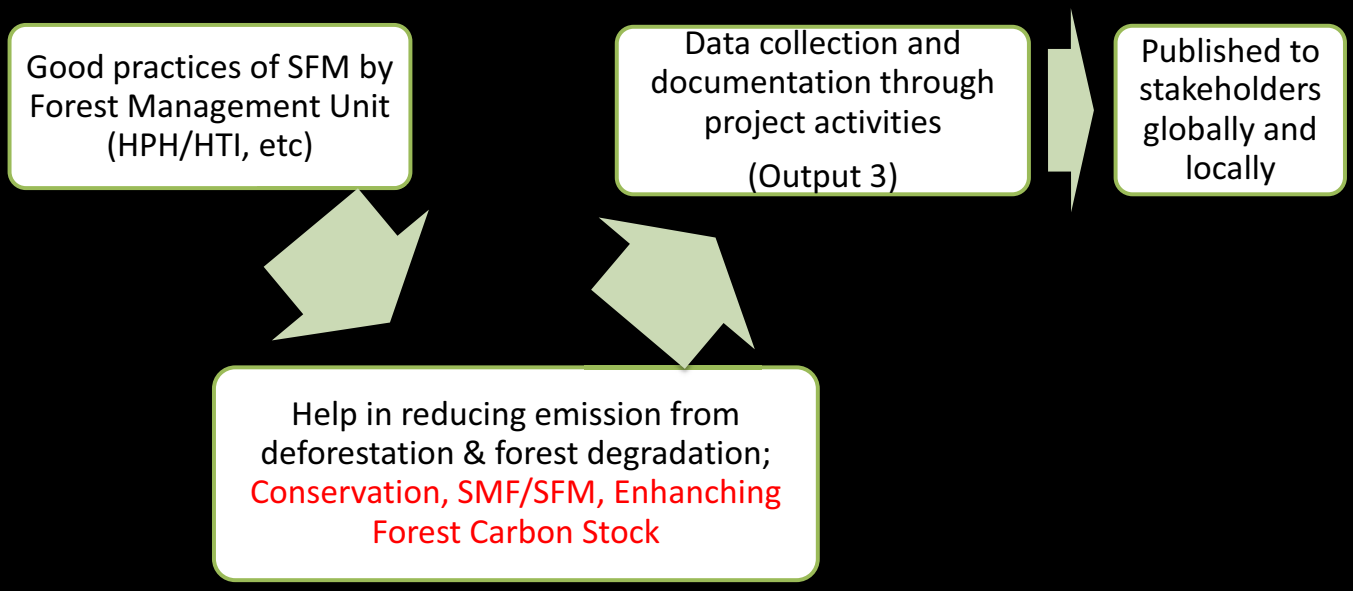
**OBJECTIVES**
**Development Objective**

To promote the SFM as important option for forest based climate change mitigation - to reduce emission from and by tropical forest

a) Mapp and review existing SFM based projects in Indonesia ( Collect and analyze data of REDD and SFM based projects in the field;Develop Forest Carbon Standard and Carbon Accounting system for small scale plantations based on local experience ; Develop lesson learned form of certified forest management unit based on local experience.

b). Strengthen information sharing and networking among relevant stakeholders in Indonesia and within ITTO members in implementing forest based climate change initiatives including REDD and other initiatives based on SFM

# Project Activities on Sustainable Forest Management in Management Unit
## Project **RED-PD 007/09 Rev. 2 (F)**




## Project Framework
## **RED-PD 007/09 Rev. 2 (F)**

| No. | Expert | Activity | Planned Date of Implementation | Progress (as of May 2011) |
|---|---|---|---|---|
| 1. | - Dr. Doddy Sukadri<br>- Dr. Bramasto Nugroho | **Activity 1.1**<br>Study/assess and analyze all regulations concerning SFM, forest based carbon, C stock, CO2 sequestration and green products. | Nov 15, 2010 – Jan 15, 2011 (*2 months*) | Preliminary report have been submitted, currently in progress. |
| 2. | Dr. Dodik Ridho Nurrochmat | **Activity 2.1**<br>Review/assess infrastructure framework and mechanism related to SFM as important option in reducing emission from deforestation and forest degradation. | Dec 15, 2010 - Feb 15, 2011 (*2 months*) | Preliminary report have been submitted, currently in progress. |
| 3. | Dr. Bahruni | **Activity 2.2**<br>Conduct study and analysis on economic incentive framework of SFM as important option for forest based climate change mitigation-to reduce emission from and by tropical forest. | Dec 15, 2010 - Mar 15, 2011 (*3 months*) | Preliminary report have been submitted, currently in progress. |
| 4. | Dr. Teddy Rusolono | **Activity 3.1.1**<br>Collect and analyze data of REDD and SFM based projects on the ground. | Nov 15, 2010 - Feb 15, 2011 (*3 months*) | Preliminary report has been submitted, currently in progress. |
| 5. | Dr. Chairil Anwar | **Activity 3.1.2**<br>Develop Forest Carbon Standard and Carbon Accounting System for small-scale plantations based on local experiences. | Nov 15, 2010 - Feb 15, 2011 (*3 months*) | Field work to KPWN (Ciampea and Ciamis) Preliminary report have been submitted. Mid-term report have been submitted. Currently in progress. |

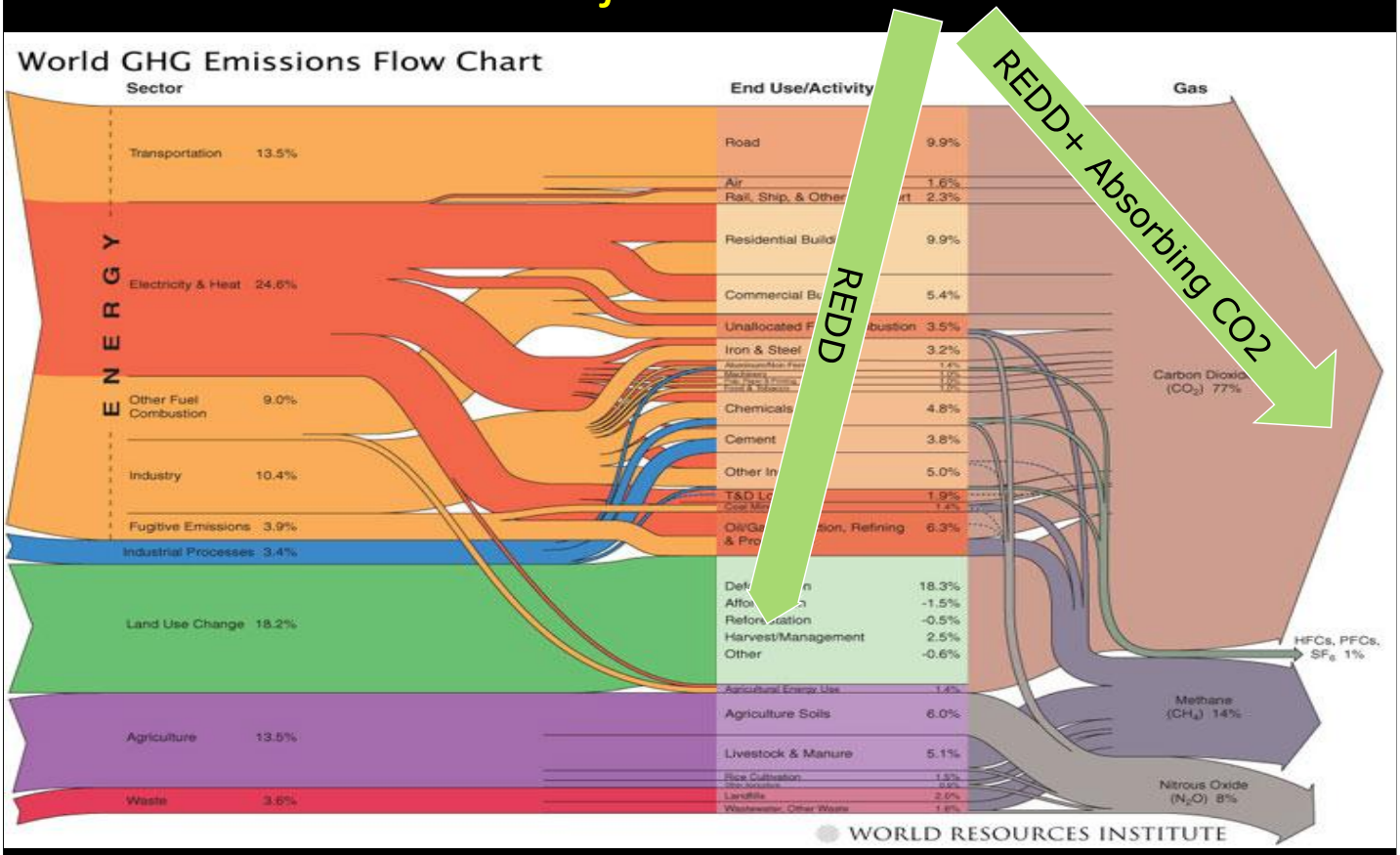
Do You Believe:
FORESTS/TREES BEING A REMEDY for CLIMATE CHANGE ???,
or is it (Forests/Trees) only a problems ???

Be a hero for yourself
your regions (ITTO member countries) and the world (mother earth)

TREES / FOREST AND GHG CO2 CYCLE

- Planting trees: absorbing CO2
- Managing Forest: Holding solid C in term of standing biomass
- Producing Sustainable Renewable Biomass: absorbing CO2 continuously; Providing renewable green products—holding solid C and replace/substitute high CO2 products (coal, oil, cement, steel, etc)
- Reducing Emission From Forest: Self remedy

# Basic data/idea for Indonesia and the Tropical Country regions and the Partners For joint actions




NICHOLAS STERN REVIEW, 2007 p.199:

## Understanding the Fact:

# Forests' role in global carbon

**Reservoirs**

**1650 GtC**
more than twice the carbon as in the atmosphere

**Sinks**

**2.6 GtC/yr**

**Sources**

(deforestation)

**1.6 GtC/yr = 17.4% GHG emissions**

TRUE FACTS

# Green Economy
## (UNEP 2011, Towards a Green Economy)

- "REDD+ regime may be the best current opportunity to facilitate the transition to a green economy for (from) forestry"
- "investing 0.03% of GDP b/w 2011-2050 to conserve forests & private investment for reforestation → >20% increase value added in forest industry compare to BAU"

# A Quick Look..global

KP 1997.. LULUCF, AR CDM
RED, REDD….REDD+

COP 13, the Bali Action Plan states (1.1.b.iii): "Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries". … REDD+

Cancun, the UNFCCC COP Decision 1/CP.16 recommendations : encouraging developing country Parties to contribute to greenhouse gas mitigation actions in the forest sector by undertaking REDD-plus activities

# A Quick Look.. continue…

Cancun….
Negotiations on market based mechanisms (Chapter III D) have touched on REDD-plus related issues.

Start with readiness activities, followed by implementation of policies and measure, finally moving on to performance-based REDD-plus.
Norway for example has proposed that REDD+ could be funded from voluntary sources (for example through the World Bank) in the first phase, moving on to a mix of public funding sources and carbon markets in the final phase.

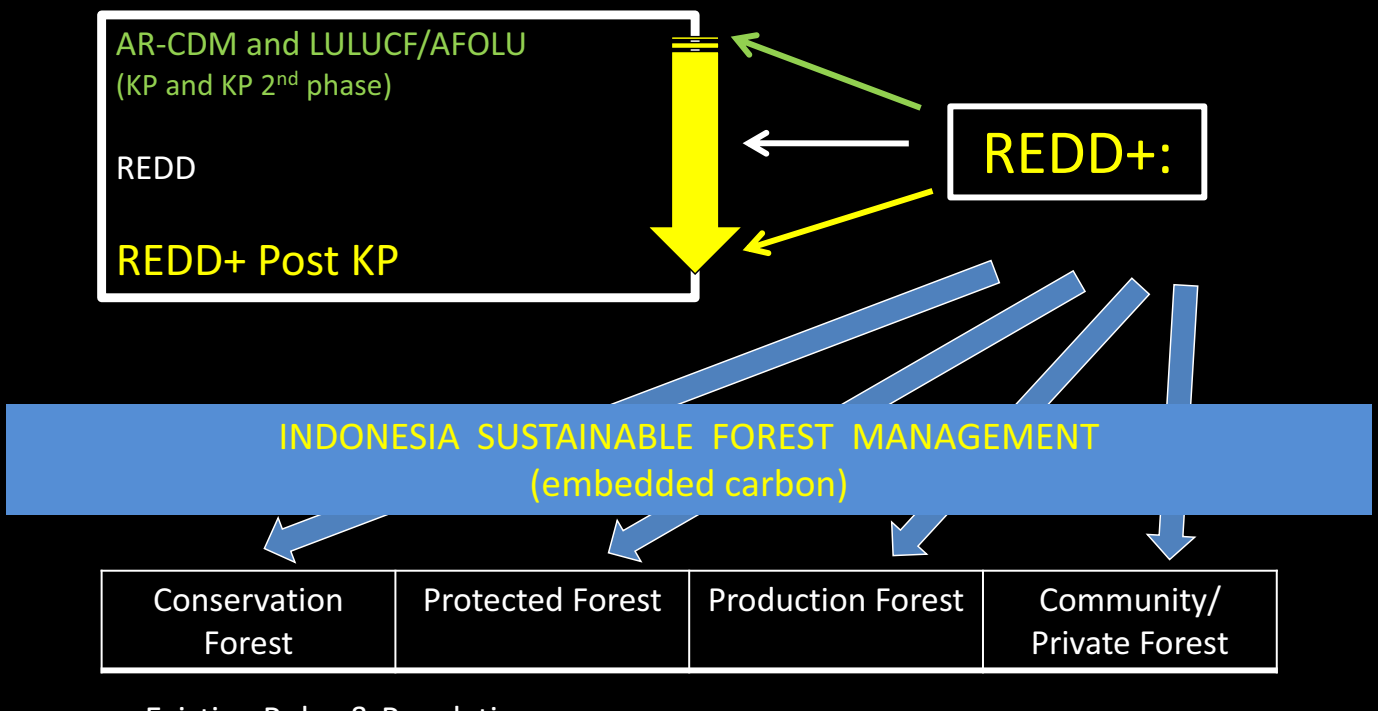
# NATIONAL RULES & REGULATIONS

- Law Number 6 , 1994, Ratification of the *United Nations Framework Convention on Climate Change*
- Law Number 17, 2004, Ratification of *Kyoto Protocol to The United Nations Framework Convention on Climate Change*
- Presidential Decree Number 10, 2010, Moratorium on New Licenses on Peat and Primary Forest
- Presidential Decree Number 61 Tahun 2011 National Action Plan on GHG Emission Reduction
- Presidential Decree Number 71 Tahun 2011, GHG National Inventory

# PRESIDENTIAL DECREE 61 / 2011
# ON
# NATIONAL ACTION PLAN FOR REDUCING GHG EMISSIONS

| Sector | TARGET (Giga ton $CO_2e$) by 2020 | | | | | |
|---|---|---|---|---|---|---|
| | 26% | Persen | 15% (Total 41%) | Persen | Total | Persen |
| **Forestry and Peat Land** | **0,672** | **87,6%** | **0,367** | **87,0%** | **1,039** | **87,4%** |
| **Waste** | 0,048 | 6,3% | 0,030 | 7,1% | 0,078 | 6,6% |
| **Agriculture** | 0,008 | 1,0% | 0,003 | 0,7% | 0,011 | 0,9% |
| **Industry** | 0,001 | 0,1% | 0,004 | 0,9% | 0,005 | 0,4% |
| **Energy and Transportation** | 0,038 | 5,0% | 0,018 | 4,3% | 0,056 | 4,7% |
| **Total** | **0,767** | **100,0%** | **0,422** | **100,0%** | **1,189** | **100,0%** |

## Targets in Motion…. sequential adjustment with international concept




- Existing Rules & Regulation
- Adjustment for CARBON & SCALE UP

REDD+ as Stated on Bali Action Plan Article 1.b.iii = Forestry (REDD, Conservation, SMF, EFCStock

CF
PF
PF
CF

# MANAGING THE FORESTS
# = ???
# MANAGING FOREST CARBON

DELTA CARBON ~
SCALE UP INOVATION,
IMPROVEMENT

- Carbon inventory, RL/REL, …)
- MRV

- Regular Timber and non timber forest products… PLUS…
- Carbon as a New commodity; Biomass Renewable energy

important

- MAPS, REMOTE SENSING/SATELITE IMAGE, GROUND CHECK, INOVATION, Silviculture TECKNOLOGY , ….
- New Economic Analysis

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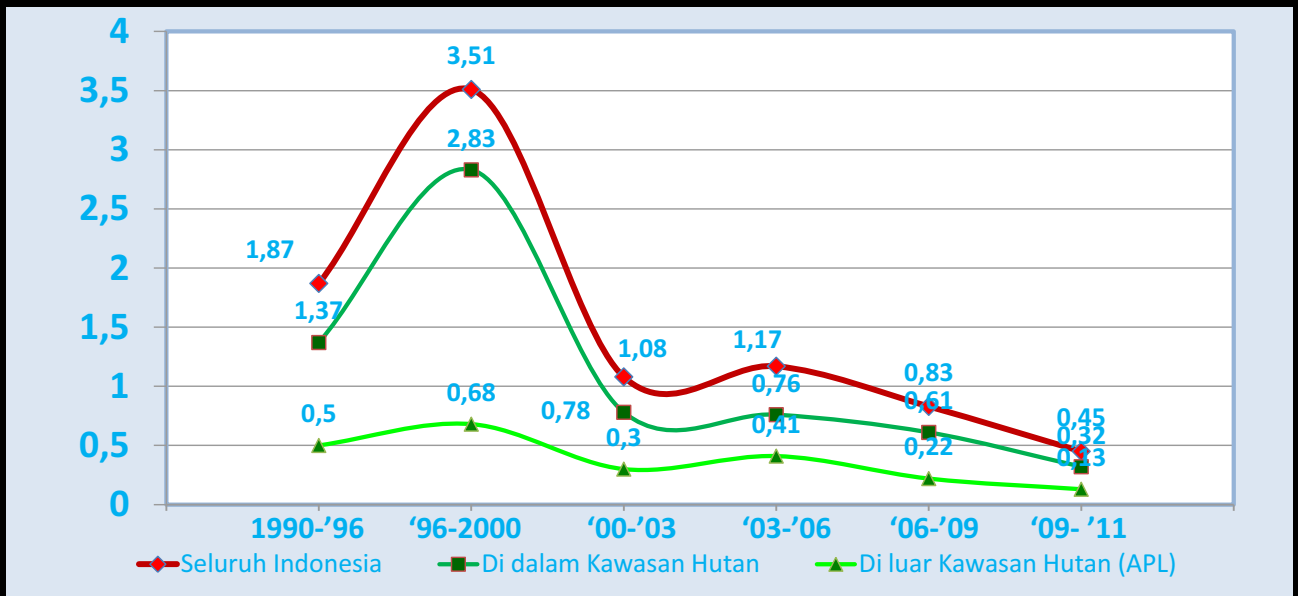
## DEFORESTATION RATE

TRUE FACTS




| Rate of Deforestation | 1990-1996 | 1996-2000 | 2000-2003 | 2003-2006 | 2006-2009 | 2009-2011* |
|---|---|---|---|---|---|---|
| Indonesia | 1,87 | 3,51 | 1,08 | 1,17 | 0,83 | 0,45 |
| Forest Area | 1,37 | 2,83 | 0,78 | 0,76 | 0,61 | 0,32 |
| Non Forest Area | 0,5 | 0,68 | 0,3 | 0,41 | 0,22 | 0,13 |

* Not been published yet

# Indonesia Forest Carbon Remote Sensing Data

STOCKS

Sequestration

Emission

SERAPAN KARBON HUTAN (ABOVE GROUND BIOMASS) DI LUAR LAHAN GAMBUT
TAHUN 2000 s/d 2011

| Fungsi | TAHUN | | | | |
|---|---|---|---|---|---|
| | | | 2006 | 2009 | |
| | | .190 | 84.694.423 | 53.421.397 | |

STOK KARBON HUTAN (ABOVE GROUND BIOMASS) DI LUAR LAHAN GAMBUT
TAHUN 2000 s/d 2011

| Fungsi Kawasan Hutan | TAHUN | | | | |
|---|---|---|---|---|---|
| | 2000 | 2003 | 2006 | 2009 | 2011 |
| HL | 5.901.396.956 | 5.876.441.117 | 5.806.033.716 | 5.769.490.762 | 5.753.475.614 |
| KSA/KPA | 3.845.247.552 | 3.828.041.752 | 3.790.768.507 | 3.772.386.935 | 3.766.667.634 |
| HP | 5.333.445.665 | 5.247.671.666 | 5.116.678.486 | 4.998.993.253 | 4.929.566.432 |
| HPT | 4.409.919.281 | 4.358.887.394 | 4.265.625.423 | 4.226.198.171 | 4.209.950.419 |
| HPK | 3.017.327.836 | 2.980.624.545 | 2.920.830.815 | 2.862.359.830 | 2.846.792.281 |
| APL | 4.107.787.475 | 4.034.635.660 | 3.925.729.947 | 3.807.933.769 | 3.620.791.248 |
| C (ton) | 26.615.124.764 | 26.326.302.134 | 25.825.666.893 | 25.437.362.720 | 25.127.243.629 |
| CO2e total | 97.677.507.886 | 96.617.528.831 | 94.780.197.499 | 93.355.121.182 | 92.216.984.119 |

Catatan :
- Perhitungan Stok Karbon didasarkan pada perkalian data aktivitas dan emission factor.
- Data aktivitas diperoleh dari perubahan penutupan lahan pada kelas penutupan lahan (23 kelas)

Page 1

EMISI KARBON HUTAN (ABOVE GROUND BIOMASS) DI LUAR LAHAN GAMBUT
TAHUN 2000 s/d 2011

| Fungsi Kawasan Hutan | TAHUN | | | |
|---|---|---|---|---|
| | 2000 | 2003 | 2006 | 2009 |
| HL | 25.737.034 | 75.321.518 | 46.062.111 | 17.425.319 |
| KSA/KPA | 17.818.552 | 48.445.535 | 29.088.806 | 5.936.892 |
| HP | 94.307.926 | 164.327.234 | 159.713.528 | 96.463.239 |
| HPT | 55.807.574 | 100.659.669 | 58.011.588 | 17.423.963 |
| HPK | 38.969.239 | 67.624.690 | 70.646.981 | 21.060.157 |
| APL | 79.619.708 | 146.580.550 | 169.109.558 | 197.362.000 |
| C (ton) | 312.260.033 | 602.959.195 | 532.632.571 | 355.671.570 |
| CO2e total | 1.145.994.321 | 2.212.860.246 | 1.954.761.536 | 1.305.314.661 |
| CO2e/Tahun | 381.998.107 | 737.620.082 | 651.587.179 | 652.657.331 |

Catatan :
- Perhitungan emisi karbon diperoleh dari pengurangan stok karbon tahun sebelumnya terhadap tahun saat ini (Contoh: Emisi 2000-2003 diperloeh dari Stok Karbon tahun 2000 dikurangi tahun 2003)

Page 2

| | 2000 | 2003 | 2006 | 2009 | 2011 *) |
|---|---|---|---|---|---|
| Stock CO2e total | 97.677.507.886 | 96.617.528.831 | 94.780.197.499 | 93.355.121.182 | 92.216.984.119 |
| Emisi CO2e/Tahun | 381.998.107 | 737.620.082 | 651.587.179 | 652.657.331 | |
| Serapan CO2e/Tahu | 830.269.964 | 897.916.597 | 991.182.316 | 934.059.928 | |

Source: DG Forestry Planning, 2012
*) Not been published yet

# Understanding source of CO2 EMISSION FROM FORESTS

- FOREST FIRE
- ENCROUGMENT, ILLEGAL LOGGING, OVER CUTTING ETC

- NEW development, NEW SITES FOR AGRICULTURE PRODUCTS, AND OTHER LAND USE CHANGES (Indonesia's palm oil land site from forest only 4.8 m ha out of 136 m ha of forest)

---

EMISSION FROM FORESTS IS a CARBON NEUTRAL

(~ New Zealand proposed zero emission from cutting plantation forest, Bonn 2011)

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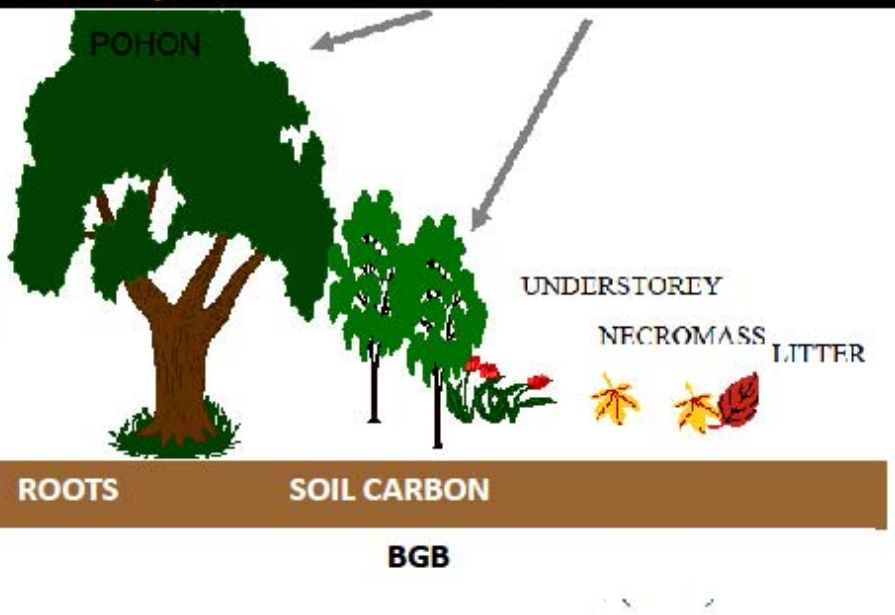
## MISSING FROM IPCC:

- 5 CARBON POOLS (AGB, UNDER STOREY, NECROMASS, LITTER, AND BGB
- (HARVESTED) WOOD PRODUCTS ????

Pool Carbon within products are missing from many global models

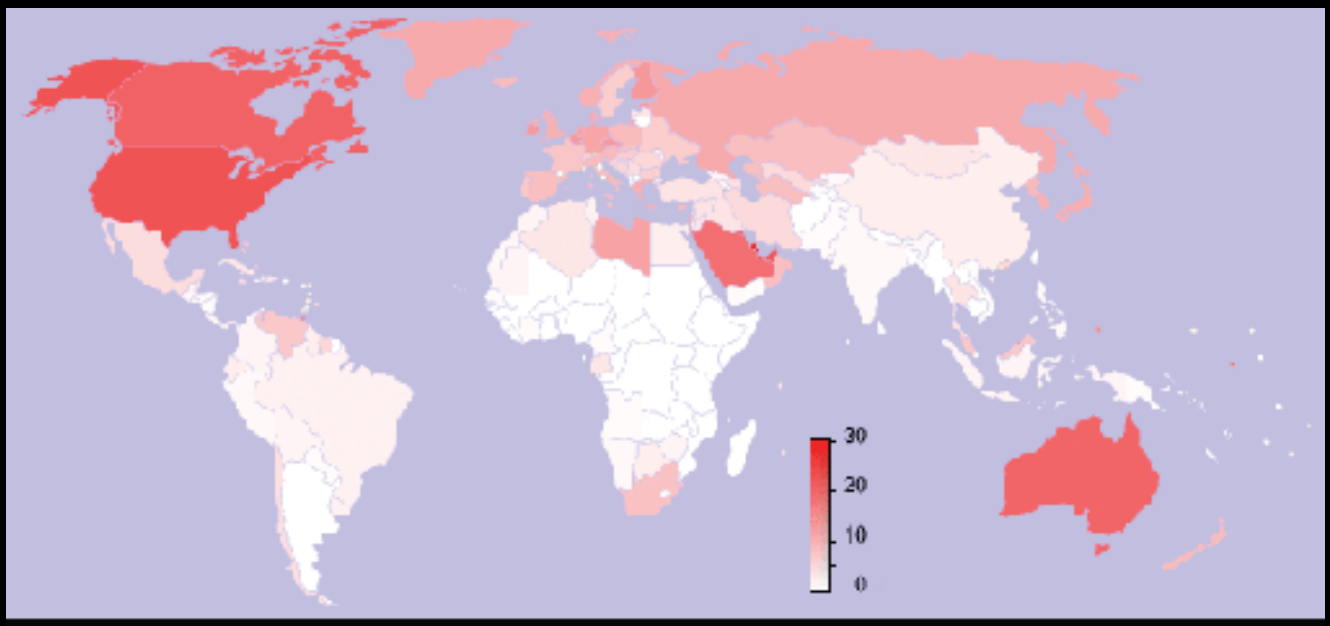
GAP ???




YR@YETTIRUSU

With whom should work together

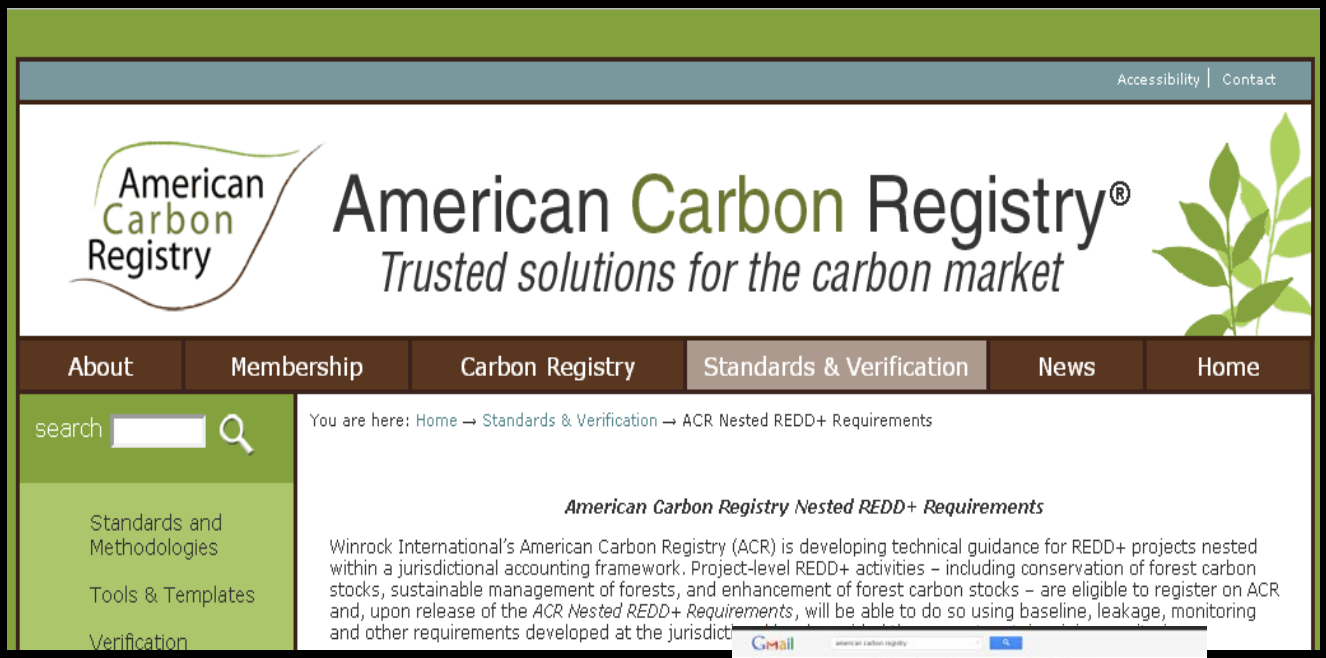
GHG concentration: $CO_2$, $CH_4$, $N_2O$, .....

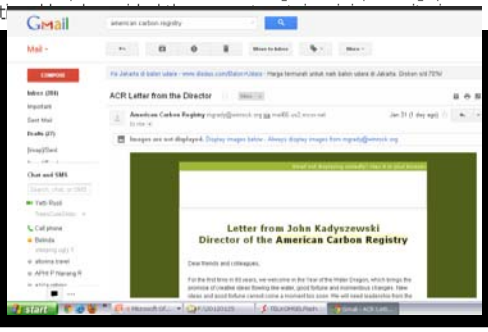



*Tons Carbon Dioxide Emmited per capita per annum*

tools

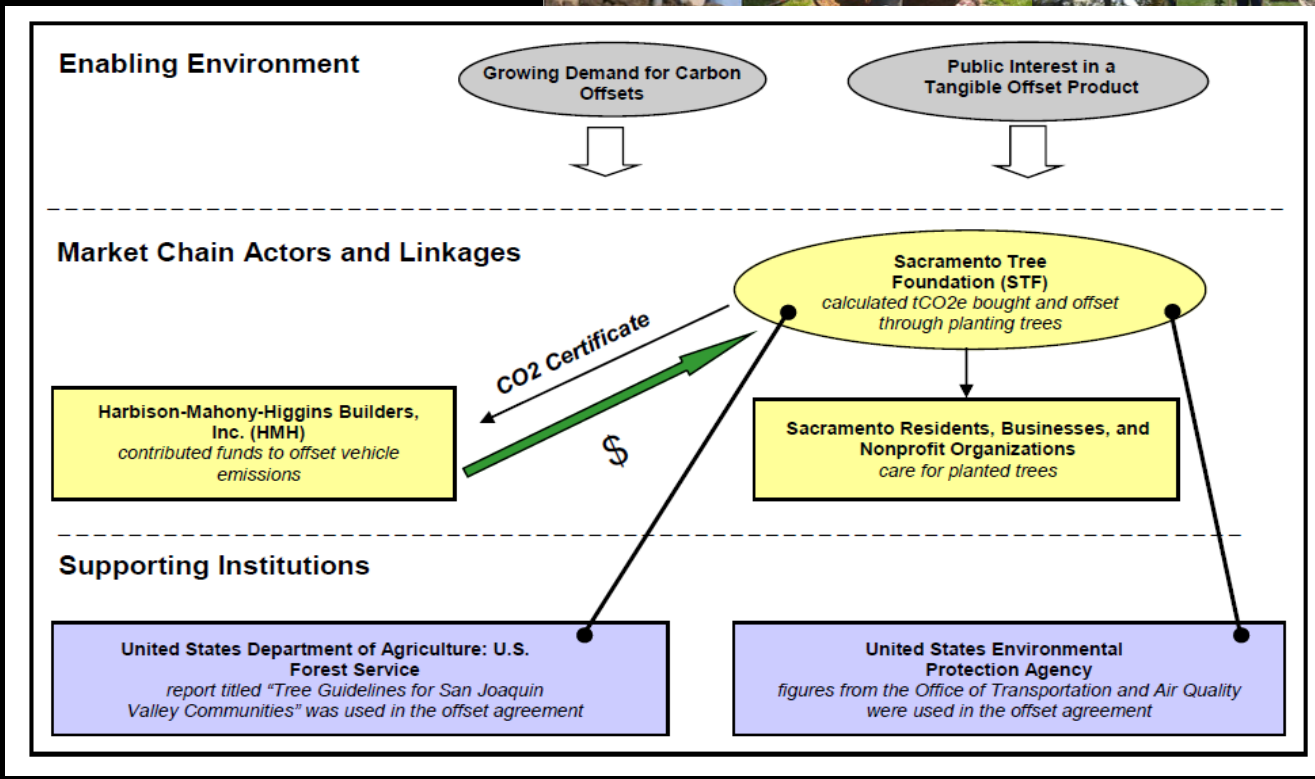
# opportunity…VOLUNTARY MARKET…



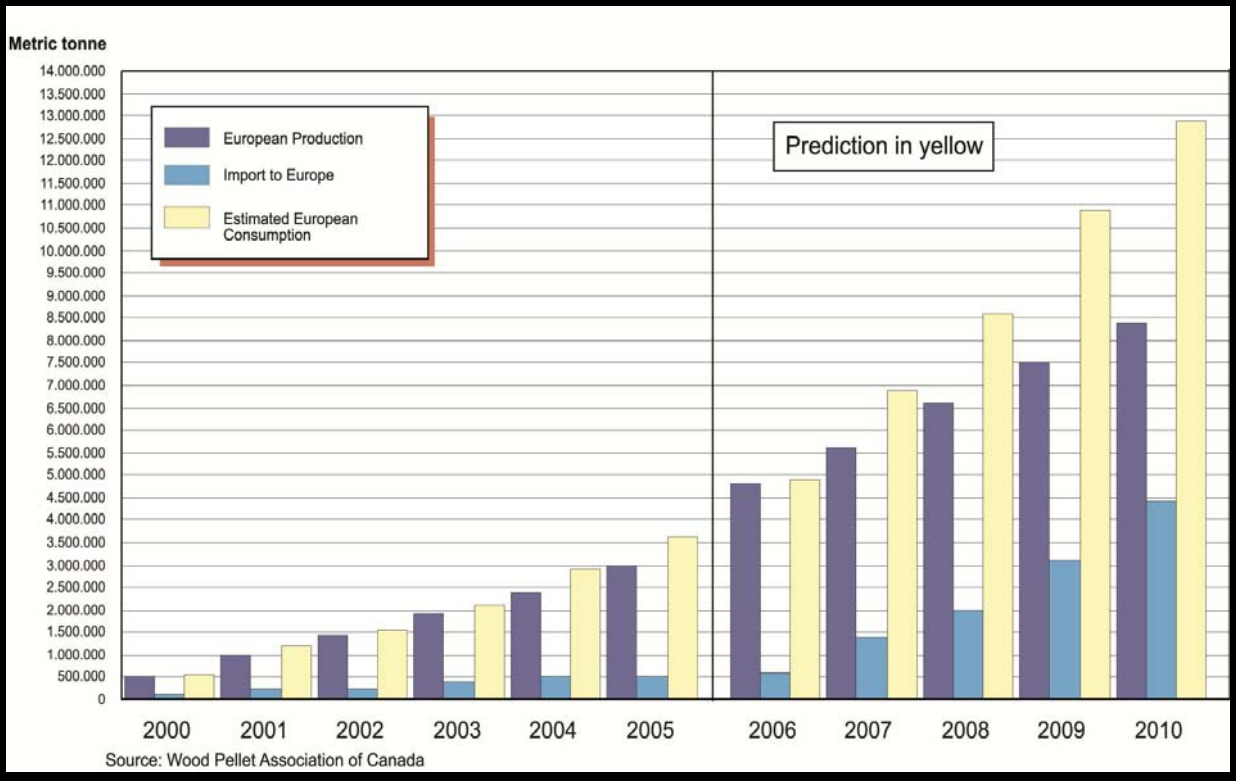

Email 31st January 2012:
REDD+ Methodologies will be ready approx by summer 2012

Existing example (US domestic)…
BAGAIMANA INDONESIA ??

# Transtition: Forestry under window Biomass Energy


# Europe Wood Pellet Consumption




- Consumption more than 10 times b/w Y 2000 (0.5 mill ton) and Y 2010 (predicted 13 mill ton)
- Buyers: 60% coal users, 25% local heating dan 15% household

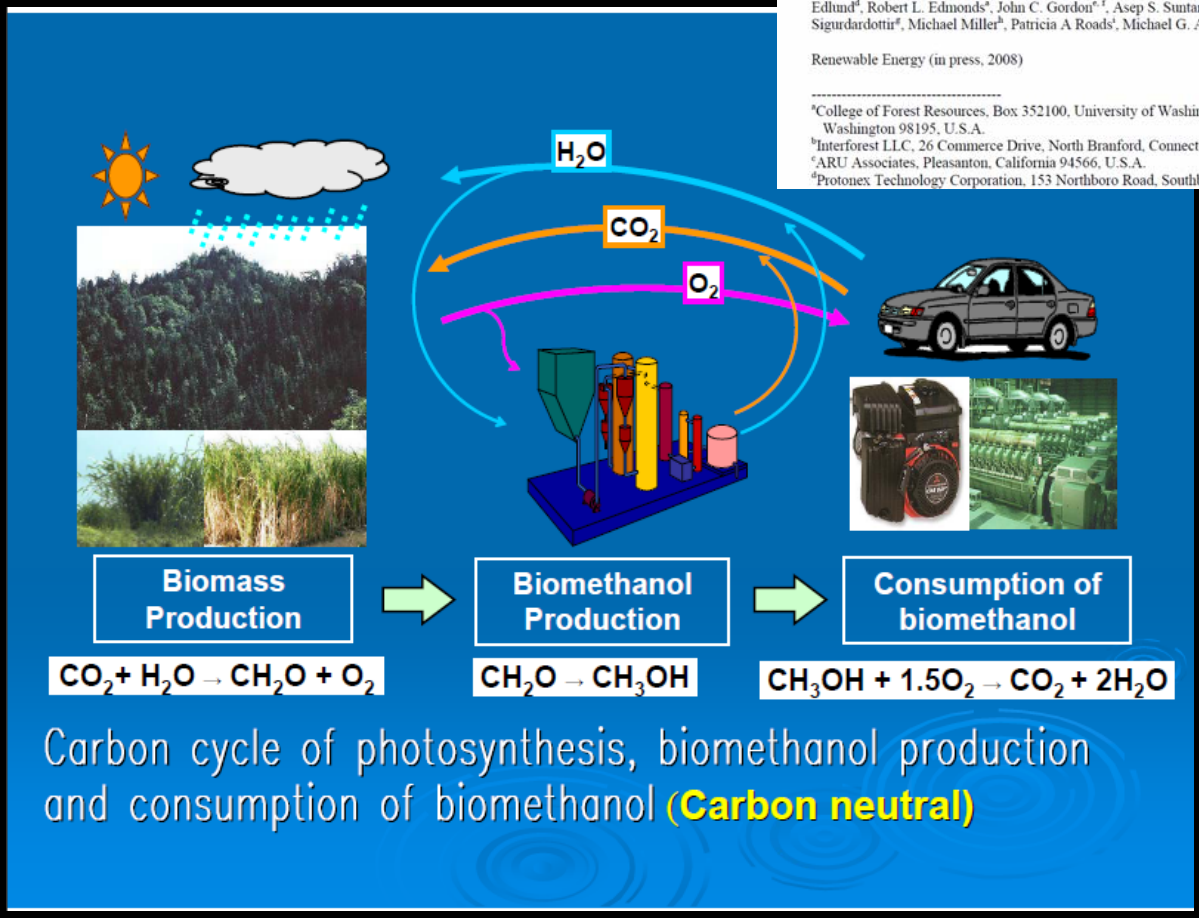
# Biomass Energy

**Bio-Methanol: How Energy Choices in the Western United States can Help Mitigate Global Climate Change**

Kristiina A. Vogt[a, f*], Daniel J. Vogt[a], Toral Patel-Weynand[b], Ravi Upadhye[c], David Edlund[d], Robert L. Edmonds[a], John C. Gordon[e, f], Asep S. Suntana[a], Ragnhildur Sigurdardottir[a], Michael Miller[b], Patricia A Roads[c], Michael G. Andreu[f]

Renewable Energy (in press, 2008)

[a]College of Forest Resources, Box 352100, University of Washington, Seattle, Washington 98195, U.S.A.
[b]Interforest LLC, 26 Commerce Drive, North Branford, Connecticut 06471, U.S.A.
[c]ARU Associates, Pleasanton, California 94566, U.S.A.
[d]Protonex Technology Corporation, 153 Northboro Road, Southborough, Massachusetts




Carbon cycle of photosynthesis, biomethanol production and consumption of biomethanol (**Carbon neutral**)

## FOREST BIOMASS AND FUTURE RENEWABLE ENERGY…




**Green Fuel** A Honeywell UOP technician holds a vial of the company's "green fuel"—a diesel equivalent that actually delivers more power and can be made from a variety of oils

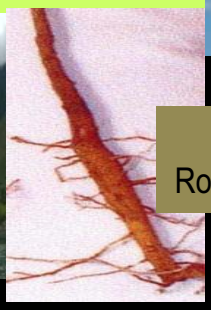
http://www.scientificamerican.com/slideshow.cfm?id=flying-environmentally-friendly-skies-on-alternative-fuels&photo_id=F9E700EB-E7F2-38DF-3C212A43B4B11829

**WOOD and its wastes can be converted to aviation fuels, diesel, and methanol.**

Source: Univ of Washington & MoF, Jakarta 17 Nov 2011

# INDONESIA FOREST TODAY & TOMORROW FOR LOCAL, NATION, & GLOBAL



**TEAK**
Root induction (JUN) KPWN

SILVICULTURE INTENSIVE FOR NATURAL FOREST REGENERATION ~ IMPROVE CO2 SEQUESTRATION





27

*YR@YETTI RUSLI*

# ITTO MEMBER COUNTRIES

## DEVELOPED, GROWING ECONOMY, AND DEVELOPING COUNTRIES

Promoting TROPICAL TIMBER SFM BASED ~ ABSORBING CO2 ~ Transforming CO2 Into SOLID CARBON ~ GREEN PRODUCTS ~ GREEN ECONOMY

Inspiring by
Michael Jackson Song
"HEAL THE WORLD"

*POEM OF "TREES FOR BETTER LIFE"*
Heal the world by planting trees
Planting more means absorbing more CO2
Planting more means produce more green products
These are the anchor of forest for climate change solution..HEAL THE WORLD BY PLANTING TREES

yetti.rusli@gmail.com

**Thank you**

International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia

# ANNEXES F
# PRESENTATIONS

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## National Strategy for REDD+ in Indonesia

*Dr. Hadi Daryanto / Dr. Nur Masripatin*
*(Indonesia Ministry of Forestry)*

# NATIONAL STRATEGY FOR REDD+ IN INDONESIA

**HADI DARYANTO**
**Secretary General of the Ministry of Forestry**
**National Task Force of REDD+**

**International Meeting on**
**Forest-Based Climate Change Policies and Action Plans in Indonesia**
**Jakarta, 10-11 Mei 2012**

## OUTLINE

- INTRODUCTION
- INDONESIAN FOREST AREA
- FOREST POLICY AND PLANNING
- FOREST AND CLIMATE CHANGE POLICY
- REDD+ INDONESIA
- CLOSING REMARKS

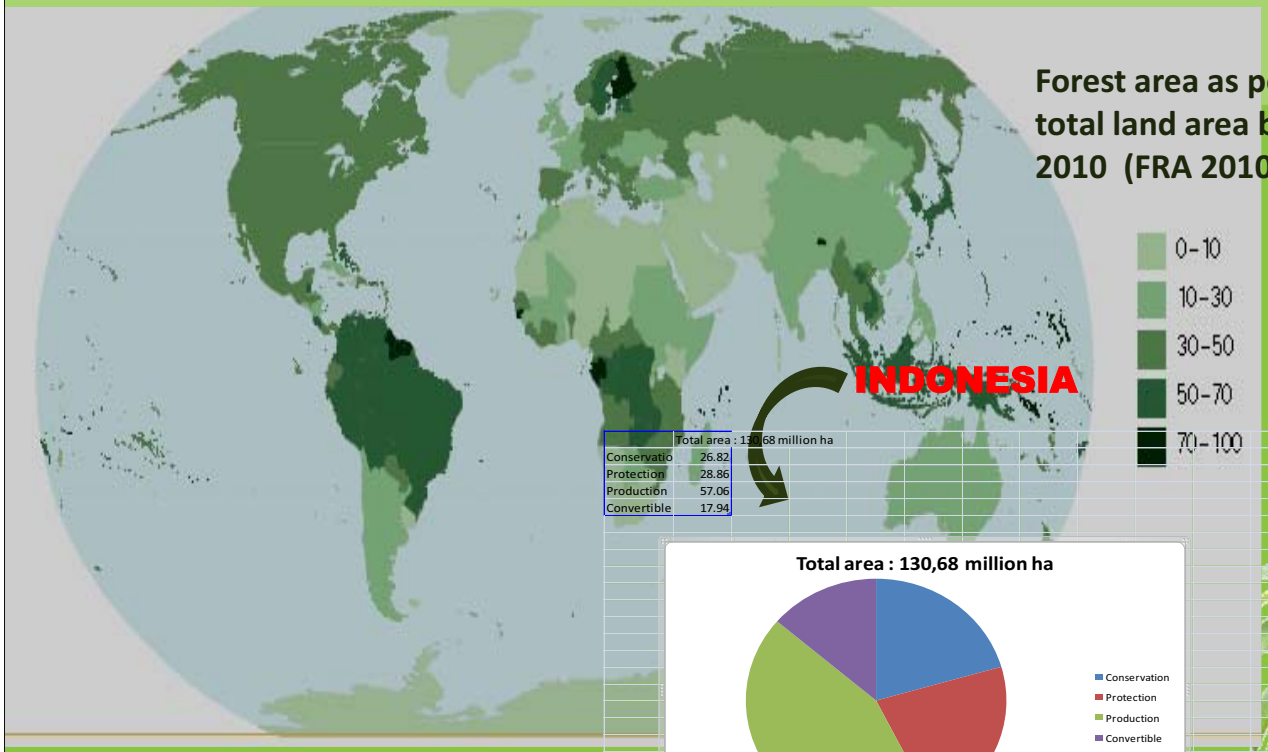
# INTRODUCTION

- Indonesia is an island country with about 187 million ha area,
- Low laying coastal areas with 80 thousands km of coastal forests,
- Population of ± 230 million in 2011, expected to face challenges or blessed with opportunities by more than 60 % population in productive ages (18-60 years) in 2030,
- Located in "*the ring of fire*" which result in volcanic fertile soils and various mineral resources,
- Forests occupy about 70 % of the country land area,
- Tropical-humid temperature has made Indonesia as one of mega-diversity countries,
- Autonomous governance system up to district level with brought about challenges in managing natural resources sustainably especially forest.

# NATIONAL DEVELOPMENT OBJECTIVES

1) Social : reduce poverty from 16.7 % in 2004 to below 10 % in 2014 and reduce unemployment from 9.9 % in 2004 to below 5 % in 2014.
2) Environment : reduce GHGs emission of 26-41 % from BAU by 2020 and significant reduction of biodiversity loss in 2014.
3) Economy : 5 % growth with income per capita of USD 1,186 in 2004 to 7 % growth with income per capita of USD 4,000 in 2014.

# INDONESIA AND WORLD FORESTS

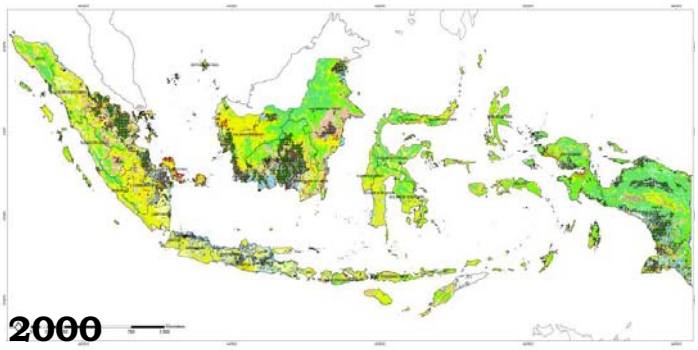


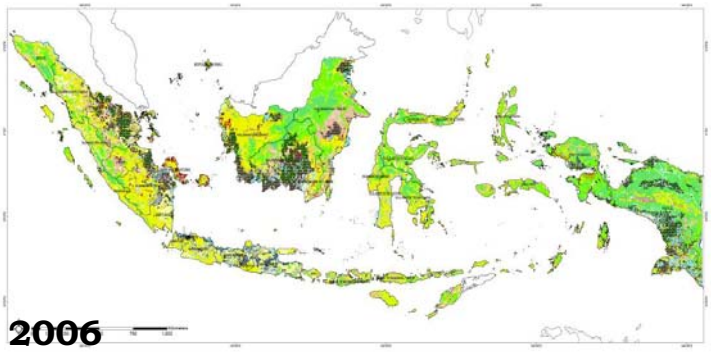

| | Total area : 130,68 million ha |
|---|---|
| Conservatio | 26.82 |
| Protection | 28.86 |
| Production | 57.06 |
| Convertible | 17.94 |

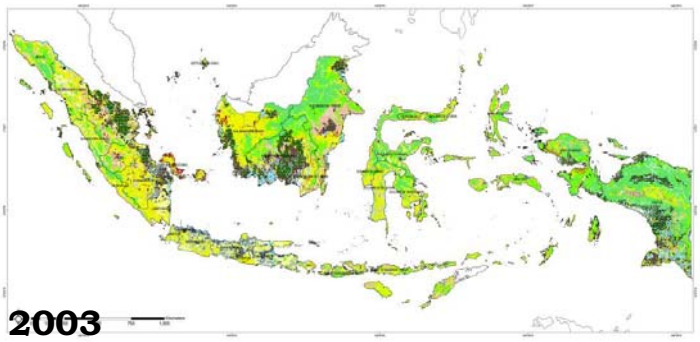


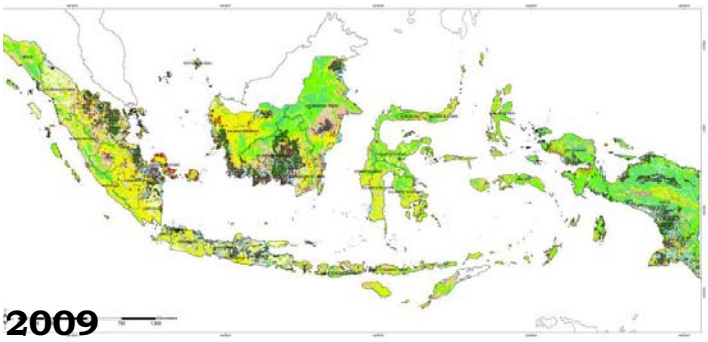

Source : MoFor, 2010

# FOREST COVER CHANGES




Source : MoFor, 2011

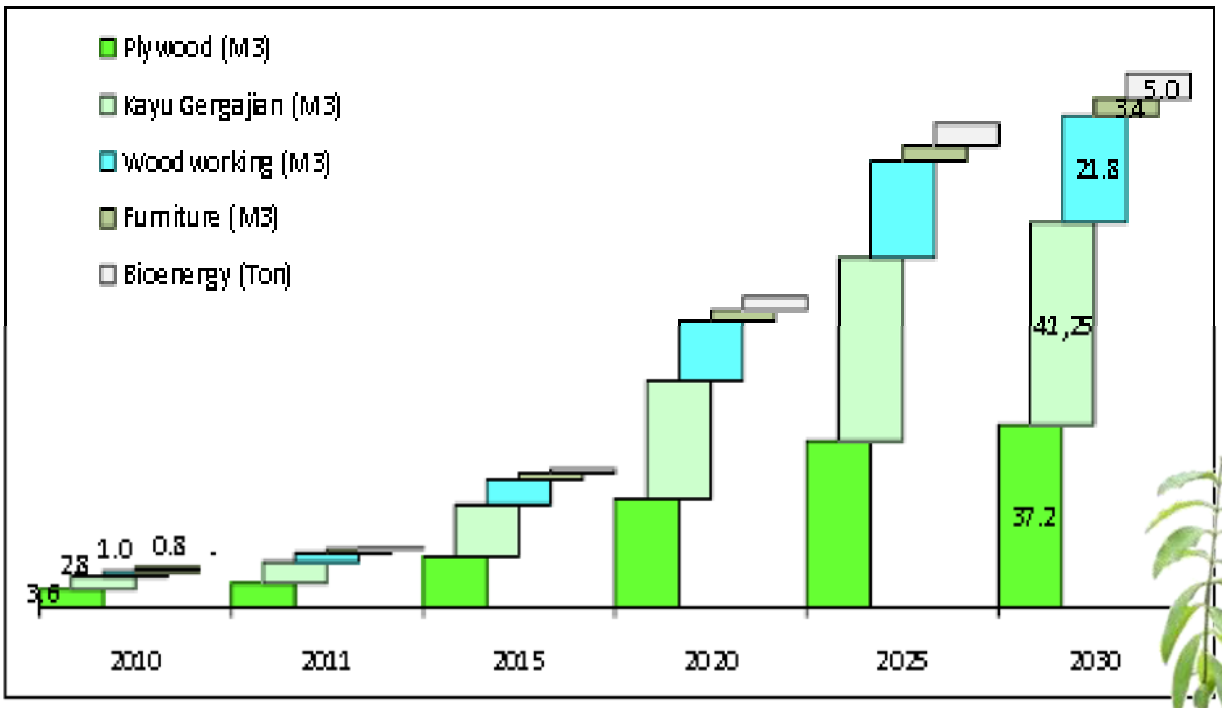
# PRIORITY POLICY IN FORESTRY SECTOR

1. Strengthening legal status of forest area,
2. Forest rehabilitation and enhancement of watershed's carrying capacity,
3. Forest protection and fire management,
4. Biodiversity conservation,
5. Revitalization of forest utilization and forest industry,
6. Empowerment of community living in/around forests.

# NATIONAL FOREST PLANNING 2010-2030 : policy and strategy

- Policy reform
- Strengthening legal status and optimization of forest area,
- Development of incentive and disincentive system,
- Strengthening research and development,
- Empowering decentralization in forest management,
- Enhance coordination across sectors,
- Strengthening extension institution and human resource development,
- Enhancing roles of forestry sector at the regional and global levels,
- Commitment and consistency in law enforcement.

# TIMBER PRODUCTION TARGET (IN MILLION M3, RKTN 2010 – 2030)

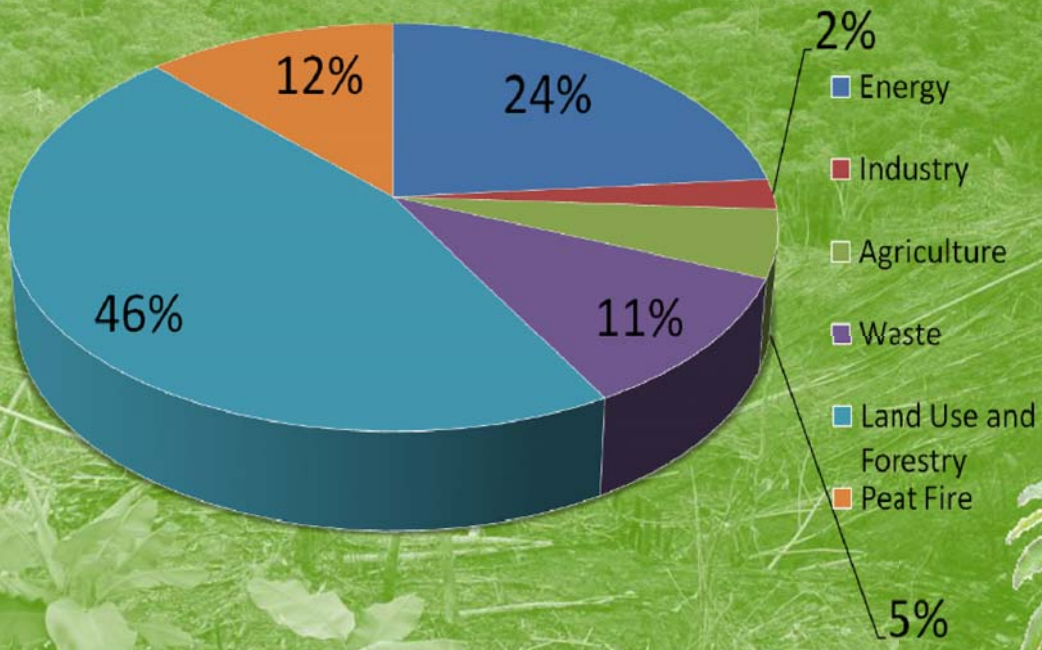



# FOREST AND CLIMATE CHANGE POLICY

- Indonesian commitment to reduce emission of 26-41 % from BAU by 2020 is already part the national development policy,

- Forestry is one of major sectors to achieve emission reduction or in a broader scope in mitigation and adaptation to climate change.

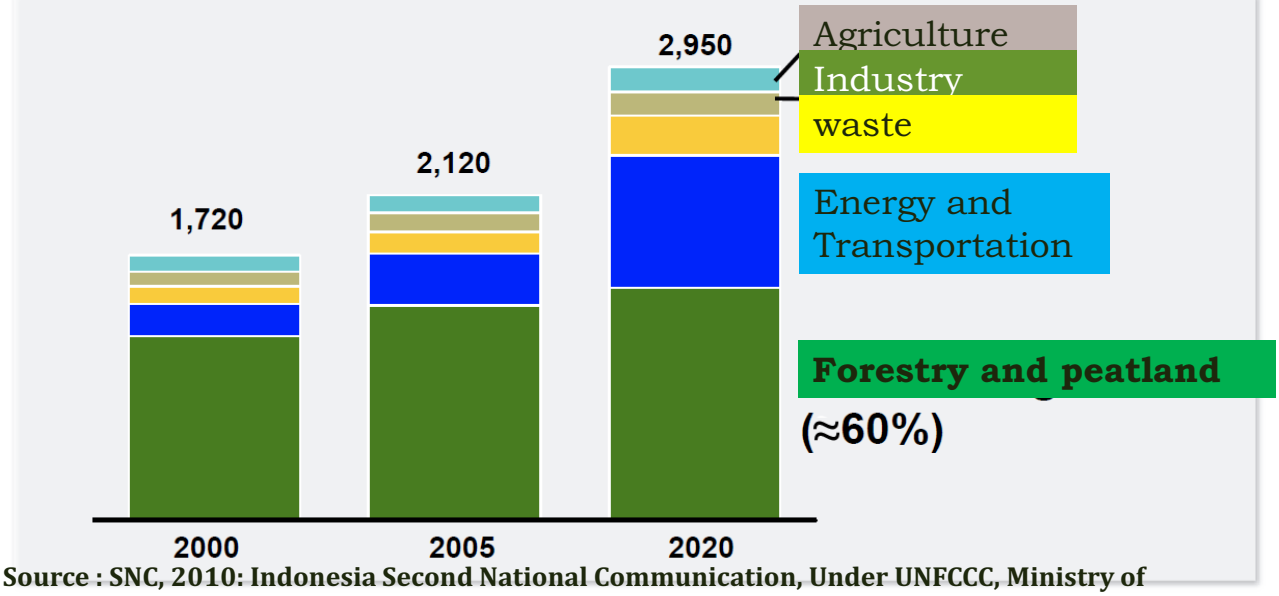
# National GHGs Emissions in SNC 2010




Source : Second National Communication (SNC) 2010

# FORESTRY IN NATIONAL POLICY ON CLIMATE CHANGE

**BAU emission projection in 2020 (million ton CO2e)**



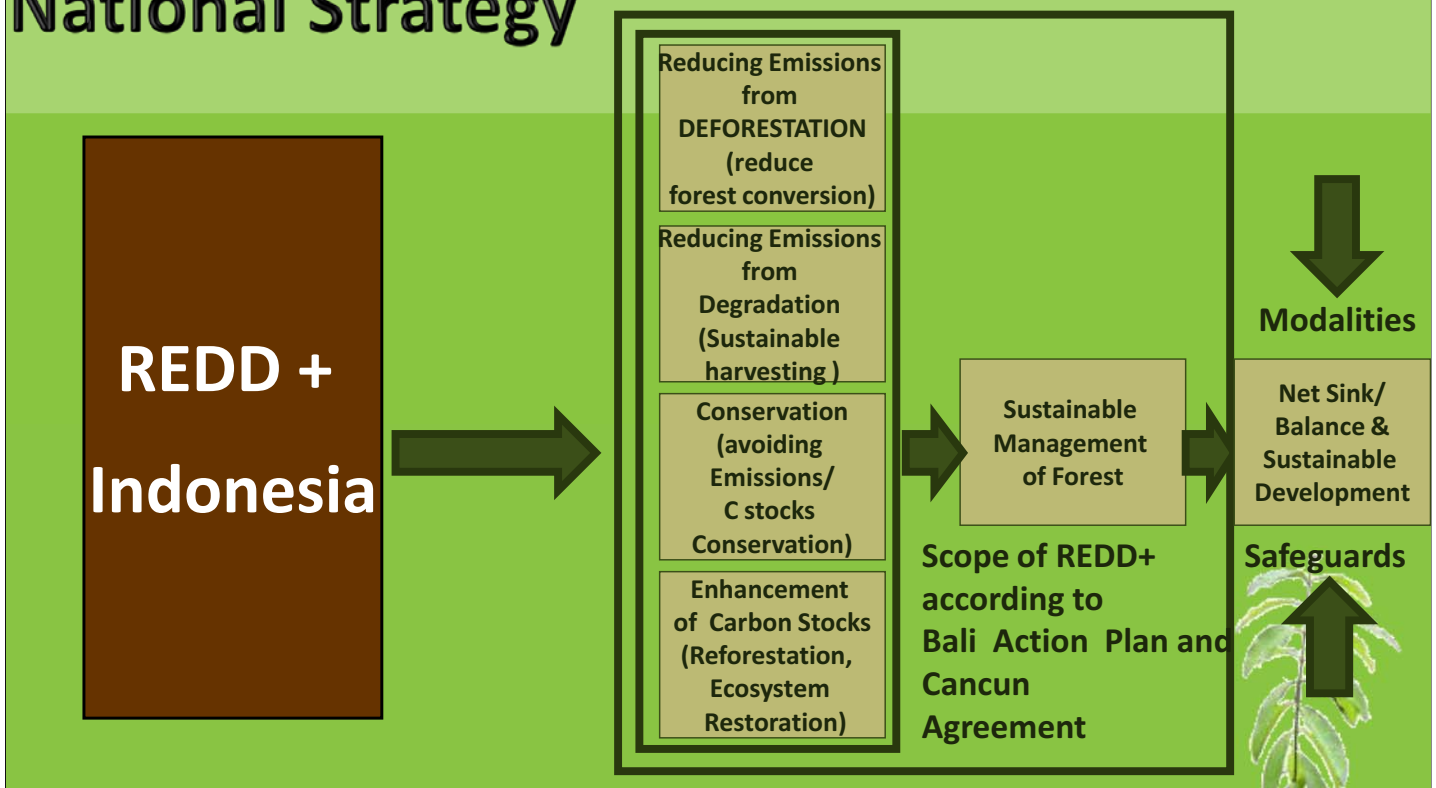

Source : SNC, 2010: Indonesia Second National Communication, Under UNFCCC, Ministry of Environment, Republic of Indonesia, Jakarta, November 2010

# NAP-EMISSION REDUCTION (RAN-GRK)

| Sector | RAN-GRK (Giga ton $CO_2e$) from BAU by 2020 | | | | | |
|---|---|---|---|---|---|---|
| | 26% | % | 15% (Total 41%) | % | Total | % |
| Forestry and peatland | 0,672 | 87,6% | 0,367 | 87,0% | 1,039 | 87,4% |
| Waste | 0,048 | 6,3% | 0,030 | 7,1% | 0,078 | 6,6% |
| Agriculture | 0,008 | 1,0% | 0,003 | 0,7% | 0,011 | 0,9% |
| Indutry | 0,001 | 0,1% | 0,004 | 0,9% | 0,005 | 0,4% |
| Energy and Transport | 0,038 | 5,0% | 0,018 | 4,3% | 0,056 | 4,7% |
| Total | 0,767 | 100,0% | 0,422 | 100,0% | 1,189 | 100,0% |

Source : Presidential Regulation No. 61/2011

# Translating Scope of REDD+ in The National Strategy



# REDD+ and RAN-GRK

Policy interventions to address drivers of DD

**Safeguards**

1.NFP & Convention
2.Good governance & sovereignty
3. IP & local Community
4. Stakeholder Engagement
5. Biodiversity, natural forest, ecosystem services
6. Address risks of reversals
7. Address displacement of emission

Enabling Activities

Reducing Emissions from Deforestation (Reduce forest conversion)

Reducing Emissions from forest Degradation (sustainable harvesting )

Conservation (avoiding Emissions/C stocks Conservation)

Enhancement of Carbon Stocks (Reforestation, Ecosystem Restoration)

Sustainable Management of Forest

•Forest conservation
•Environmental services

•Rehabilitation
•Ecosystem restoration
•Social forestry
•Other planting activities

Commercial Timber plantation

Enabling Activities

• FMU
•Forest gazzettment
• Fire management
•Forest protection
• R & D

Activities which can be measured in terms of emission reduction/emission avoidance/carbon stock enhancement

REDD +

RAN-GRK

# REDD+ NATIONAL STRATEGY

**1** Institution and processes :
- National REDD+ agency
- Financial instruments and institution
- MRV System

**2** Legal Framework

**3** STRATEGIC PROGRAMMES

| | |
|---|---|
| Sustainable landscape management | 1. Landscape/watershed management<br>2. Enhance employment opportunity<br>3. Operationalization of FMU<br>4. Forest fire management |
| Sustainable use of natural resources in economic system | 1. Enhancing SFM practices<br>2. Increase productivity of agricultural crops<br>3. Sustainable mining<br>4. Empower down stream industries |
| Forest conservation and rehabilitation | 1. Securing protected areas,<br>2. Controling peat land conversion,<br>3. Peat land restoration |

**GOALS**
- Reduce emission
- Enhance carbon stocks
- Conserve Biodiversity
- Provision of Environmental services
- Economic growth

**4** Paradigm shift
- Strengthening forest governance,
- Empowering local economy in a sustainable basis
- Campaign to safe Indonesia's forests

**5** Stakeholder engagement
- Stakeholder communication and engagement
- Safeguards implementation
- Benefit sharing, equity etc

Source : Draft Indonesia REDD+ Strategy (2012)

# CHALLENGING AREAS

- Forest areas occupy ± 70 % of country land area : harmonization of spatial planning between land-based sectors at the national, provincial, and district levels is critical,
- Autonomous governance system (autonomy up to district level) : scaling up REDD+ to provincial and national level,
- Stakeholders involvement : diversity in expectations, human resources and institutional capacities, socio-cultural and geographical conditions,
- Extracting lessons from local level experiences and scaling up activities from project into District, Provincial and national levels.

# ADDRESSING CHALLENGES AND LESSONS LEARNED

- The increase of commitments to address DD challenges up to the highest political level has made dialogue between forestry and other land-based sectors possible;
- Selecting the most appropriate/acceptable approach for Indonesia's condition, national accounting (supported with FRIS & INCAS development) with sub-national (provincial/district level) implementation (facilitated by establishment of Provincial and District Levels REDD+ Task Forces);
- Increasing transparency at the national level (National Task Force as the Coordinating Unit for REDD+, Ministry of National Development Planning for issues related to national development policies), National Council for Climate Change (NCCC) and National Forestry Council (NFC) as the channels for stakeholders' dialogue;
- Review of the status of REDD+ related activities in the field by the Ministry of Forestry, as the basis for further steps,
- Continue multi-sectoral dialogue especially related to sectoral development planning at all levels.

# CLOSING REMARKS

- Indonesia has started REDD+ related policy and actions since 2007, however, there remains many issues to be addressed for a successful REDD+ implementation,
- National REDD+ Strategy is still in the process of finalization;
- Next immediate steps :
  - Finalizing National REDD+ Strategy,
  - Continuing Readiness Activities (Institutional setting, REL/RL establishment, MRV System development, policy and sector planning reform, multi-stakeholders communications),
  - Scaling up project level activities into District, Provincial levels and consistent with national setting.

# THANK YOU

International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia

# ANNEXES F
# PRESENTATIONS

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## Sustainable Forest Management in Relation to REDD+

*Dr. Rizaldi Boer*
*(International Expert / Bogor Agricultural University)*

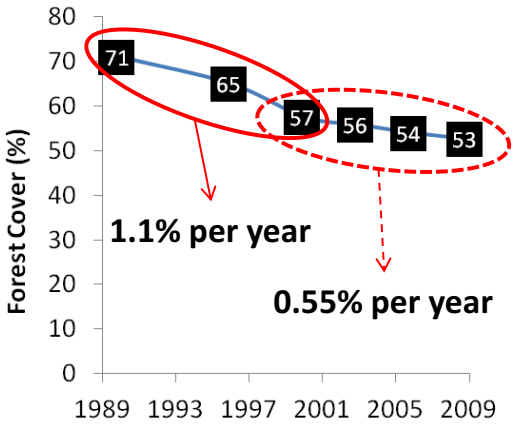
# SUSTAINABLE FOREST MANAGEMENT IN RELATION TO REDD+

*Rizaldi Boer*

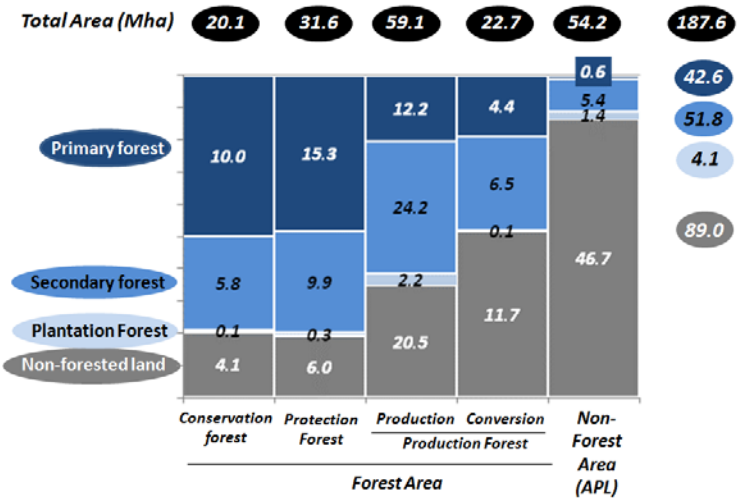
*Centre for Climate Risk and Opportunity Management in Southeast Asia and Pacific, Bogor Agriculture University*

## Introduction

- Managing forest resources in sustainable manner is responsibility of every nation:
  - to ensure sustainable production of goods and services for meeting present and future needs and
  - to secure its long-term development
- Indonesia, in the last two decades has been able to reduce its deforestation.
- The highest deforestation occurred in production forest.
- In 2009, remaining forest cover was 52%, and more than half were SF with various level of degradation



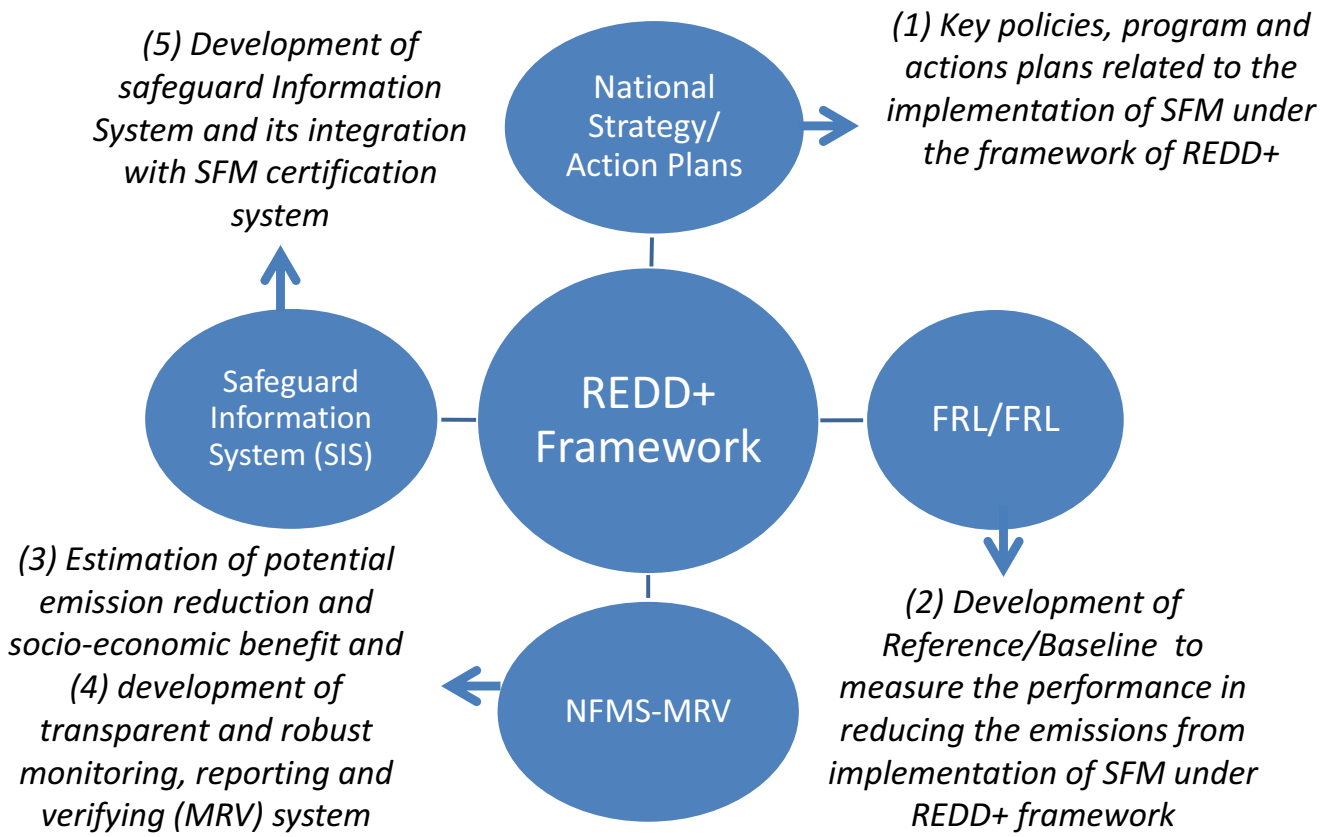

Based on Ditjenplan, 2011



# Indonesian Initiatives

- Following Indonesia commitment on reducing its GHG emission, Ministry of Forestry has done a number of efforts to improve its forest management which will contribute to the reduction of emission from deforestation and forest degradation
- To gain international recognition on the efforts in reducing GHG emission from deforestation and forest degradation (REDD) through the improvement of its forest management practices, Indonesia needs to follow REDD+ framework

# REDD Framework

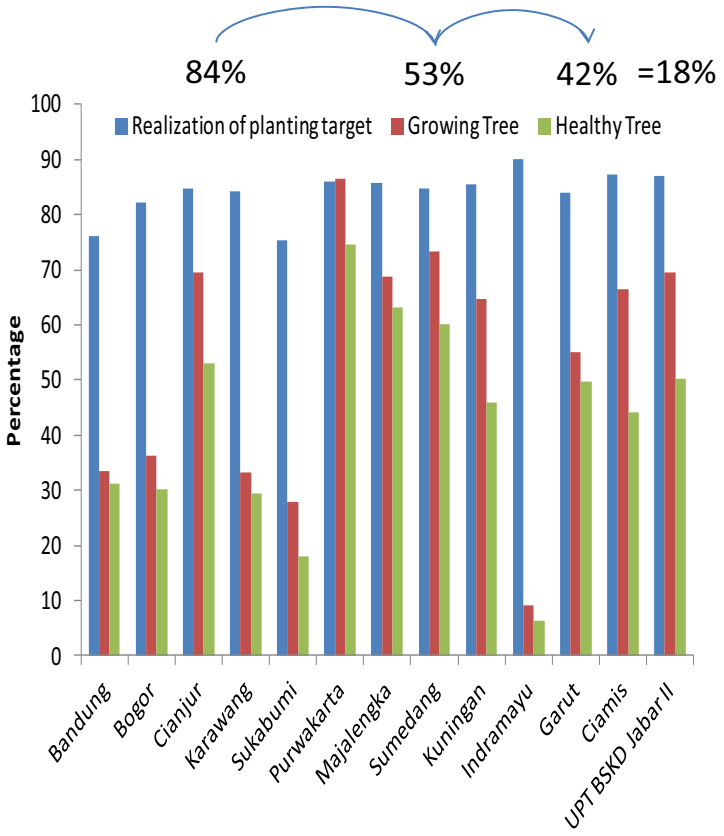


# Key Policies, strategies and Action Plan

- Key policies and actions being implemented by Government of Indonesia in achieving sustainable forest management can be grouped into five different aspects
  1. **Improving** institutional system for managing forest resources, through the establishment of forest management unit (FMU) in all forest areas.
  2. **Introducing mandatory forest certification systems** for limiting trading of illegal logs and pushing adoption of sustainable management practices in production forests.
  3. **Reducing dependency** on natural forests in meeting wood demands through accelerating establishment of timber plantation on community lands and state lands and enhancing sink through restoration of production forests ecosystem and land rehabilitation.
  4. **Reducing pressure on natural forest** through optimizing the use of land and improving land productivity, and
  5. **Issuing financing/incentive policies** and development of financing system to support the four plans.

# Urgency of FMU Development

- Management of forest resources given to the private sector through the licensing mechanism for forest (IUPHH) has limited time
- Nature of the transfer of rights to holders of the license required close monitoring from government over the behavior of the license holders.
- The needs of having intensive forest manager in site level
  - Increasing successfulness of land rehabilitation programs (GERHAN)
  - Accelerating the implementation of CFM (HTR, HkM, HD).



# FMU Establishment Planning

- Target on the establishment of FMU
  - In the Strategic Plan of Ministry of Forestry for 2010-2014 (MoF, 2010): 60 units within the 5 years period
  - In RAN GRK (Bappenas, 2011): Target was increased to 120 units within the 5 years period.
- With total number of 600 FMUs for all Indonesia, the time required to complete the establishment of FMU all over Indonesia would be 25 years
- Estimated cost for establishing one FMU to be function effectively in 5 years about 40 billion IDR. Thus total cost for establishing all FMUs is 24 trillion IDR or 2.7 billion USD

# What need to be done?

- Clear Roadmap on the FMU Establishment and secure budget
  - Criteria and indicators for prioritizing forest area for FMUs establishment,
  - Strategy for FMU institutional capacity building,
  - Strategic work plan of the FMU
  - Monitoring and evaluation system
- Government of Indonesia may negotiate with donor countries to use Debt-Nature Swap (DNS) scheme to secure budget to support the establishment of the FMU

# *Forest Certification Systems*

- For limiting trading of illegal logs and pushing adoption of sustainable management practices in production forests, GoI introduce mandatory certification system in addition to voluntary certification system (*Minister of Forest Regulation Number P.38/Menhut-II/2009* ):
  - PK-PHPL (SFM Certification) is mandatory for all permit holders in state forests and private forests (Hutan Milik) and
  - SVLK (Log Legality) is mandatory for all permit holders in state forests (IUPHHK-HA, IPPHHK-HT, IUPHHK-RE, HKm, and HTR), private forests (Hutan Rakyat or HR), and all upstream and downstream wood industries (IUIPHHK)

# Adoption of Forest Certification

| Category | Total Concession Area (ha)[1] | Mandatory Certificates (up to June 2011)[2] | | Voluntary Certificates (up to June 2011)[3] | |
|---|---|---|---|---|---|
| | | Number | Area (ha) | Number | Area (ha) |
| IUPHHK-HA | 22,710,256 | 140 | 14,225,443 | 5 | 834,452 |
| *- Very good-good* | *na* | *31* | *3,449,955* | *na* | *na* |
| *- Average* | *na* | *35* | *3,307,789* | *na* | *na* |
| *- Poor or expire* | *na* | *74* | *7,467,699* | *na* | *na* |
| IUPHHK-HT | 9,963,770 | 90 | 4,914,301 | 3 | 544,705 |
| *- Good* | *na* | *19* | *2,499,280* | *na* | *na* |
| *- Expire* | *na* | *71* | *2,415,021* | *na* | *na* |
| HR | 1,570,315 | Na | na | 17 | 242,931 |

Source: [1]Ditjen BUK (2011), [2]Bahruni (2011), and [3]Rusolono and Tiryana (2011)

***None for IUPHHK-RE***. Nugroho *et al.* (2011) recommended that the government may also need to revisit the SFM performance indicators used by forest management units that have different nature of activities, i.e. between management of forest resources *(IPHHK-HA)* and management of forest ecosystem *(IUPHHK-RE)*

# Other Mandatory Certification

- Minister of Agriculture Regulation No. 19/Permentan/OT.140/3/2011 on ISPO, mandatory certification for palm oil ~ as a response of Government of Indonesia to meet increasing demand of market for sustainable and green products and participate in mitigating climate change
  - All palm oil plantation companies will be obliged to conserve High Conservation Values (HCV) areas in their concession and to apply good practices in reducing GHG emissions ~ reduce deforestation
- Government of Indonesia is also in the process of drafting *Government Regulation of Protecting Atmosphere Function* (*PP Perlindungan Fungsi Atmosphere*)
  - All entities obliged to have Environmental Impact Assessment (EIA) would be requested to assess level of GHG emission released from their business activities if all related rules and regulations to environmental management is well implemented ~ as '*Emission Cap*'
  - Entities that release more than the allowable emissions (emission cap) shall offset the excess

## Reduction of Dependency on Natural Forests for Wood Supply and Sink Enhancement

- Increasing contribution of forest plantations for timber supply
  - Targeted by 2030 to increase large timber plantation from 9.4 million ha to 15.9 million hectares (RKTN; MoF, 2011)
  - Targeted by 2014 to establish 7.2 million hectares of CFM (Sub-Direktorat HKm, HD dan HTR Kemenhut RI 2010)
- Sink enhancement
  - Targeted by 2030 to rehabilitate 11.6 million ha of degraded land in forest area (planting rate at least 580 thousand hectare per year ~ between 2003-2008 it was only 300 thousand hectare per year
  - Restoration of production forest ecosystem (IUPHHK-RE)

## Potential Area for Restoration of Production Forest Ecosystem (Purnama & Daryanto 2006)

| Category | Production Forest Condition | Area (million ha) |
|---|---|---|
| 1 | Production forests with good condition and now are still under management of concessionaires (IUPHHK-HA) | 28.27 |
| 2 | Production forests with relatively good condition and open access (no concessionaires operates in the area) | 12.98 |
| 3 | Production forest with medium level of degradation and open access (no concessionaires operates in the area) | 7.14 |
| 4 | Production forest with high level of degradation and have been allocated for establishment of timber plantation | 9.13 |
| TOTAL | | 57.52 |

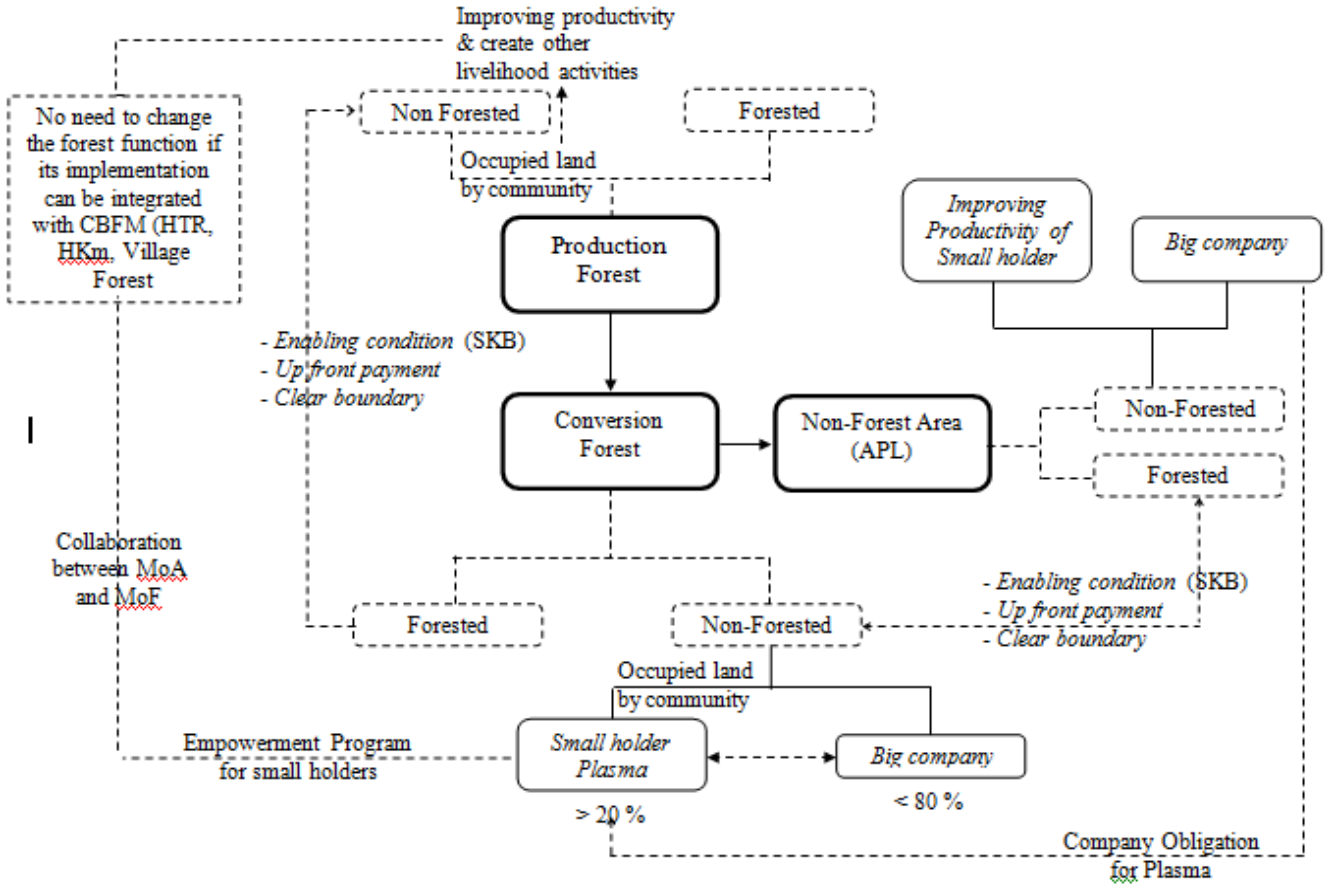
Potential for ecosystem restoration

Realization of IUPHHK-RE is very low. There is need to ***restructure the regulations*** on forest ecosystem restoration considering that (i) ecosystem restoration business is not profit-oriented business so that the treatments should be different from IUPHHKHA, (ii) IUPHHK-RE actually carry out government obligation in restoring, conserving and preserving forests that nearly have no beneficial products

## Reduction of Threat on Natural Forest by Optimizing Land Use, Improving Land Productivity and Community Livelihood

- Enforcing plantation companies to engage community in their plantation as plasma farmers (Minister of Agriculture Regulation No. 26/Permentan/OT.140/2/2007) ~ Agriculture plantation company is obligued to establish plasma plantation at least 20% of the total plantation area ~ under ISPO this mandatory for all, new and existing plantations
- Supporting small holder farmer to improve crop productivity ~ Development of synergy or integration of community empowerment programs from various sector and private (CSR)
- Changing forest function and optimizing the use of non-forested land for agriculture activities. More than 10 Mha of land in conversion forest are forested land, while about 20 Mha land in Production forests are non-forested land

Land swap policy and integration of community empowerment programs from various sector and private (CSR)




## Financing and Incentive Policies for Supporting the Implementation of SFM and REDD+

- Financing policies for the acceleration of FMU establishment,
- Incentive policies for the certification system
  - Expanding type of incentive for small business entities in getting certification ~ Increasing competitiveness of their products (wood product from illegal timber is much cheaper)
  - Providing subsidy for business entities focusing on ecosystem restoration in having the mandatory certification.
  - Providing incentive for plantation companies in getting lands for plasma farmers as support for the company in meeting certification obligations. Implementation of this policy could be integrated with CFM programs

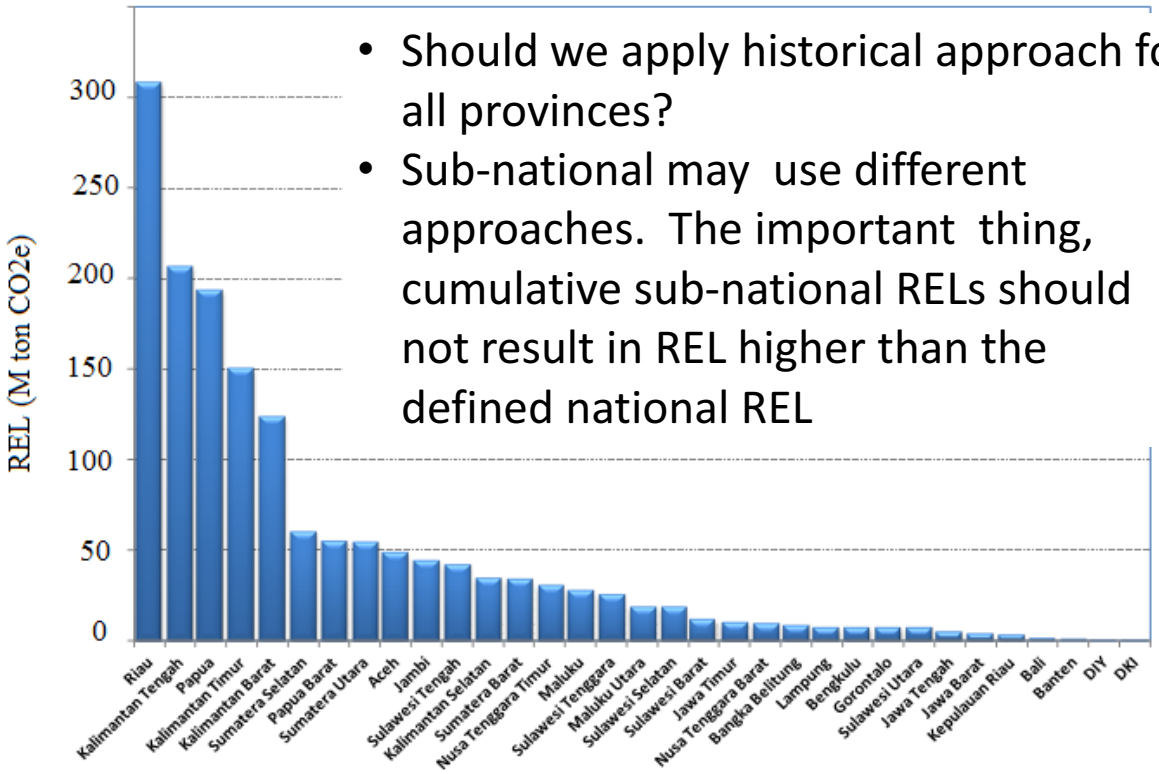
# Financing and Incentive Policies for Supporting the Implementation of SFM and REDD+

- Financing and incentive policy for accelerating the establishment of timber plantation on degraded land and CFM for sink enhancement,
  - Incentive system for permit holders in handling land conflict problem and types of the incentive may be varied depending on level of conflicts (e.g. reducing or exemption of administration/retribution fees for certain period of time)
  - Simplifying the process of getting permit and accessing fund from the BLU-P3H
- Incentive and financing policies for conserving forest carbon and land swap (Nurrochmat, 2011).
  - Special allocation fund (Dana Alokasi Kusus, DAK) for conservation ~ will be accommodated in revision of Act No. 33/2004 (Ministry of Finance, 2011)
  - Revision of fiscal balance law to enforcing "liability rule". Current policy, the higher number of the natural resources extracted by a certain region, the bigger benefit sharing received by the region ~ Green fiscal balance shall give a proportional attention both in environment and economic side to ensure the sustainability of nature resources management

# *Reference or Baseline for Measuring effectiveness of the implementation of SFM strategy and actions in GHG reducing emission*

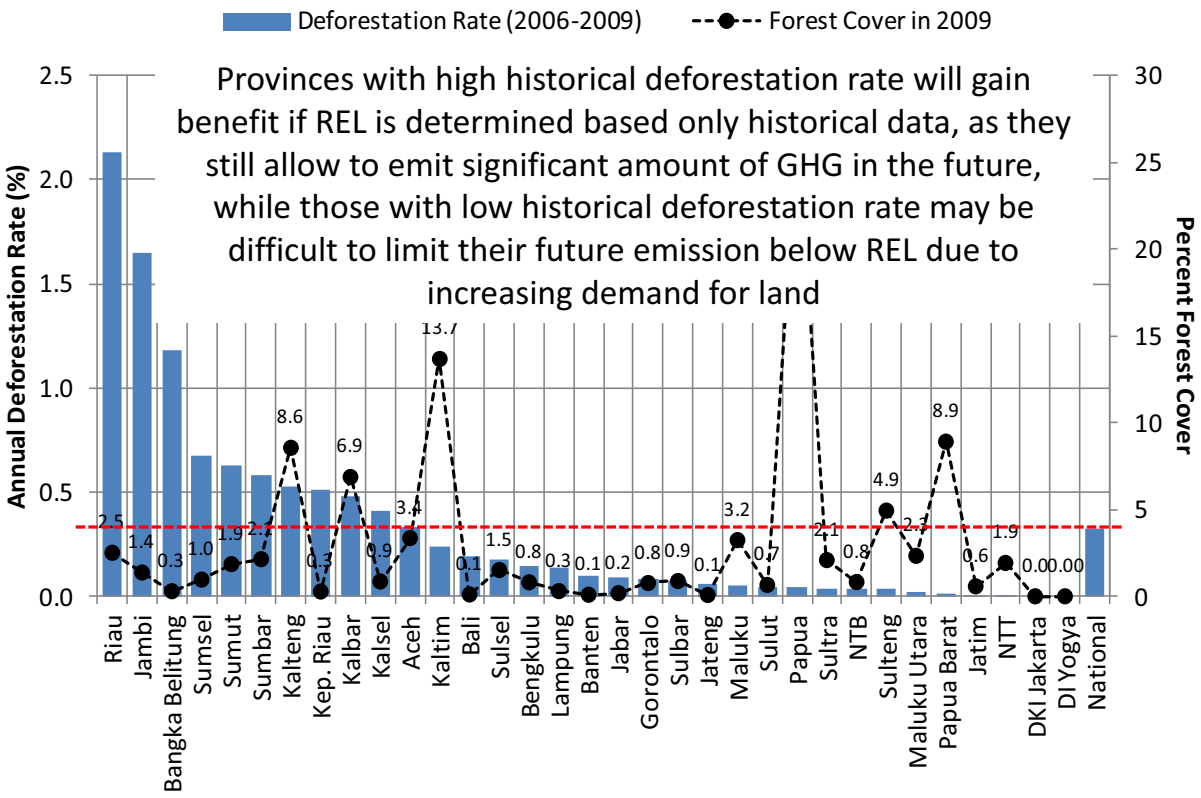
- In the SB 28 decision describes **Reference Emissions Levels** (REL) as "*Means to establish reference emission levels, based on historical data, taking into account, inter alia, trends, starting dates and the length of the reference period, availability and reliability of historical data, and other specific national circumstances*"
- *Three baselines/references that are required*
  - First is reference for deforestation to measure the effectiveness of the policies and programs in maintaining carbon in conservation and protection forests and reducing rate of conversion of natural forests to non-forest lands.
  - Second is reference for forest degradation to measure effectiveness of the policies and action programs related to forest management in reducing forest degradation.
  - Third is reference for sink enhancement to measure the effectiveness of the policies and program on land rehabilitation and reforestation including the use of degraded forests for timber plantation for increasing sinks

# Reference Emission Level for Land Use Change and Forestry by Provinces (MoF, 2012)



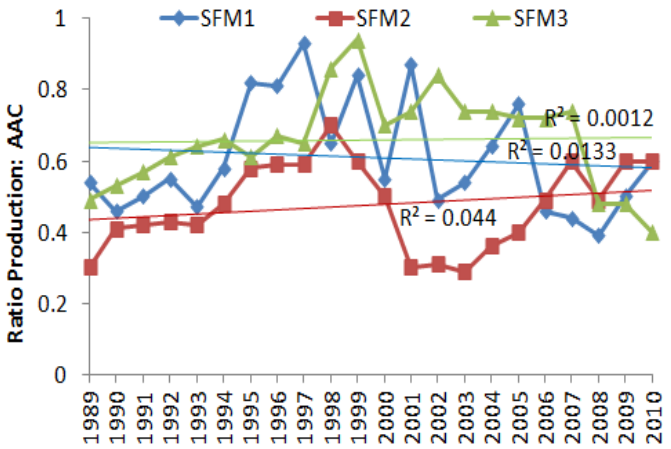

- Should we apply historical approach for all provinces?
- Sub-national may use different approaches. The important thing, cumulative sub-national RELs should not result in REL higher than the defined national REL

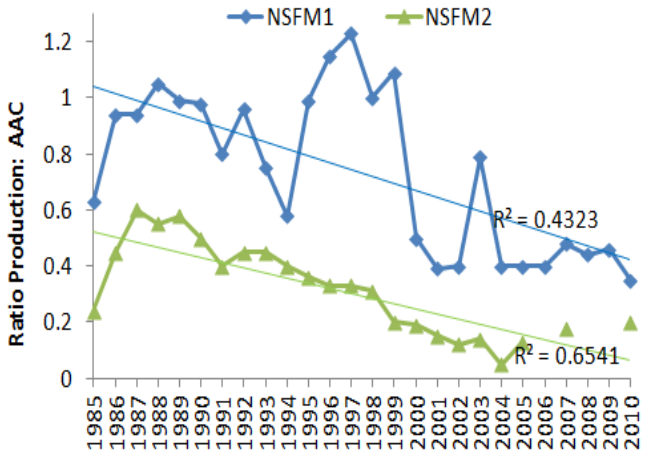
# Deforestation




(Source: Calculated based on Ditjenplan, 2011).

# Forest Degradation




| Time period | The rate of degradation (%) | | |
|---|---|---|---|
| | SFM | Non SFM | Difference SFM & Non SFM |
| 1992-2011 | 0.37 | 2.35 | 1.98 |
| 2000-2011 | 0.17 | 2.61 | 2.44 |
| The Benefit of SFM | | 1992-2011 | 2000-2011 |
| The reduction of loss stand ($m^3$/ha-yr) | | 1.85 | 2.28 |
| The reduction of emission forest carbon (tC/ha-yr) | | 2.16 | 2.66 |
| The reduction of emission forest carbon (tCO2/ha-yr) | | 7.93 | 9.76 |

Source: Bahruni, 2011

# Historical information and national circumstances used for developing Reference Level (based on Proposal Pokja Kebijakan Kehutanan, 2010)

| Type of Baseline | Assumption for Baseline |
|---|---|
| Planned Deforestation | All forested land in conversion forest will be released in the future for non-forest based activities |
| Unplanned Deforestation | Deforestation rate is the same as historical rate that occurred in period 2000-2009 until 2011, i.e. about 1.5 million ha per year. Unplanned deforestation is calculated as historical rate minus planned deforestation. After 2011, the rate is decreasing linearly with the number of FMU development. Rate of FMU development is 12 units per year. |
| Forest Degradation | Rate of wood harvesting from natural forest following APHI[2] scenario and illegal harvesting is assumed to be the same as legal harvesting up to 2011. After 2011, the rate is decreasing linearly following FMU development |
| Sink Enhancement for HTI | Rate of HTI development is assumed the same as historical rate. |
| HTR | HTR will be established only in areas that have been allocated for 2009 based on Ministry Forestry Decree. Effective area that can be planted only 40% of the allocated |
| HKm/HD | HKm and HD will be implemented only in area that have been allocated based on Minister of Forestry Decree in 2010 |
| HR | Development of HR will be mainly in Java and it is estimated about 800 thousand ha is still available (GNKL-PBNU, 2009). |
| RHL | Rate of planting is the same as historical rate of GERHAN between 2003 and 2008 and survival rate until 2011 is the same as that of West Java, i.e. 25% and then increase to 50% in 2016-20 and to 75% in 2021-25 as a result of FMU development |

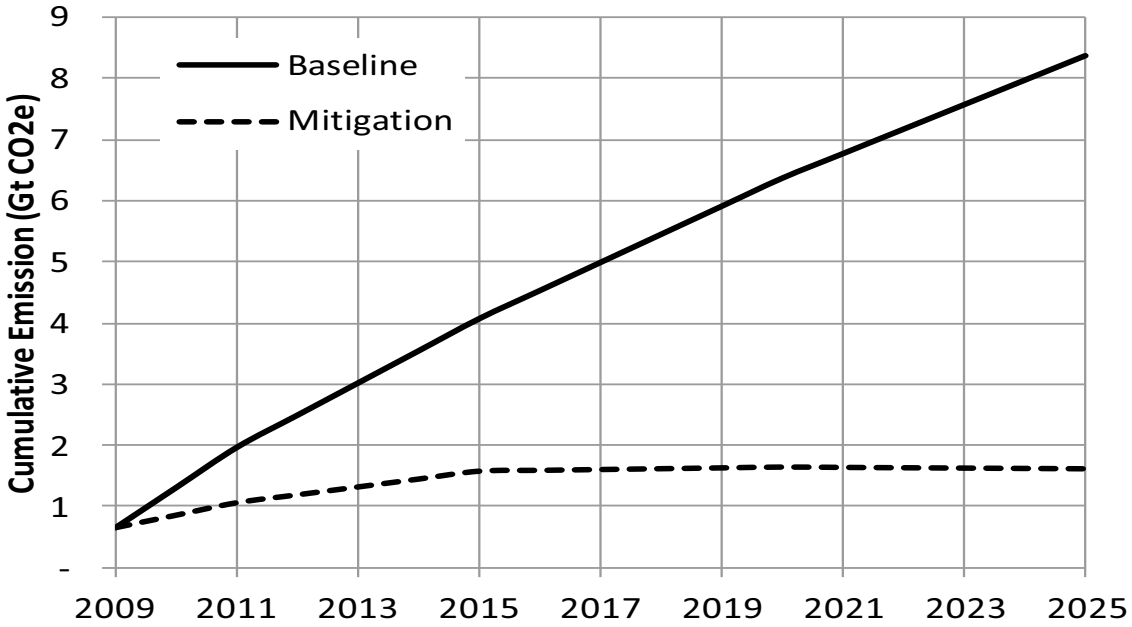
# Proposed Mitigation Scenarios (based on Proposal Pokja Kebijakan Kehutanan, 2010)

| Reference | Assumption |
|---|---|
| Planned Deforestation | About 50% of forested land in conversion forest will be conserved by changing the status of conversion forest into production forest |
| Unplanned Deforestation | Deforestation rate can be reduced by 35% from the baseline rate. The effectiveness of reducing deforestation is assumed to increase as the capacity of FMU improve with time. |
| Forest Degradation | Illegal logging will decrease from the baseline slightly |
| Sink Enhancement for HTI | Rate of HTI development is doubled than the baseline and this will meet government target |
| HTR | HTR could be established in 50% of all effective allocated for the program. Total land allocated for HTR 5 Mha, the located close to community was only 4 Mha and effective land can be planted was 40%. |
| HKm/HD | All lands allocated for HKm and HD can be planted |
| HR | Planting rate can be increased by 225% from the baseline as institutional capacity and land status outside Java improved |
| RHL | Rate of planting is doubled from the baseline and the survival rate is the same as the baseline |

# *Deforestation, forest degradation and sink enhancement under Reference and mitigation*

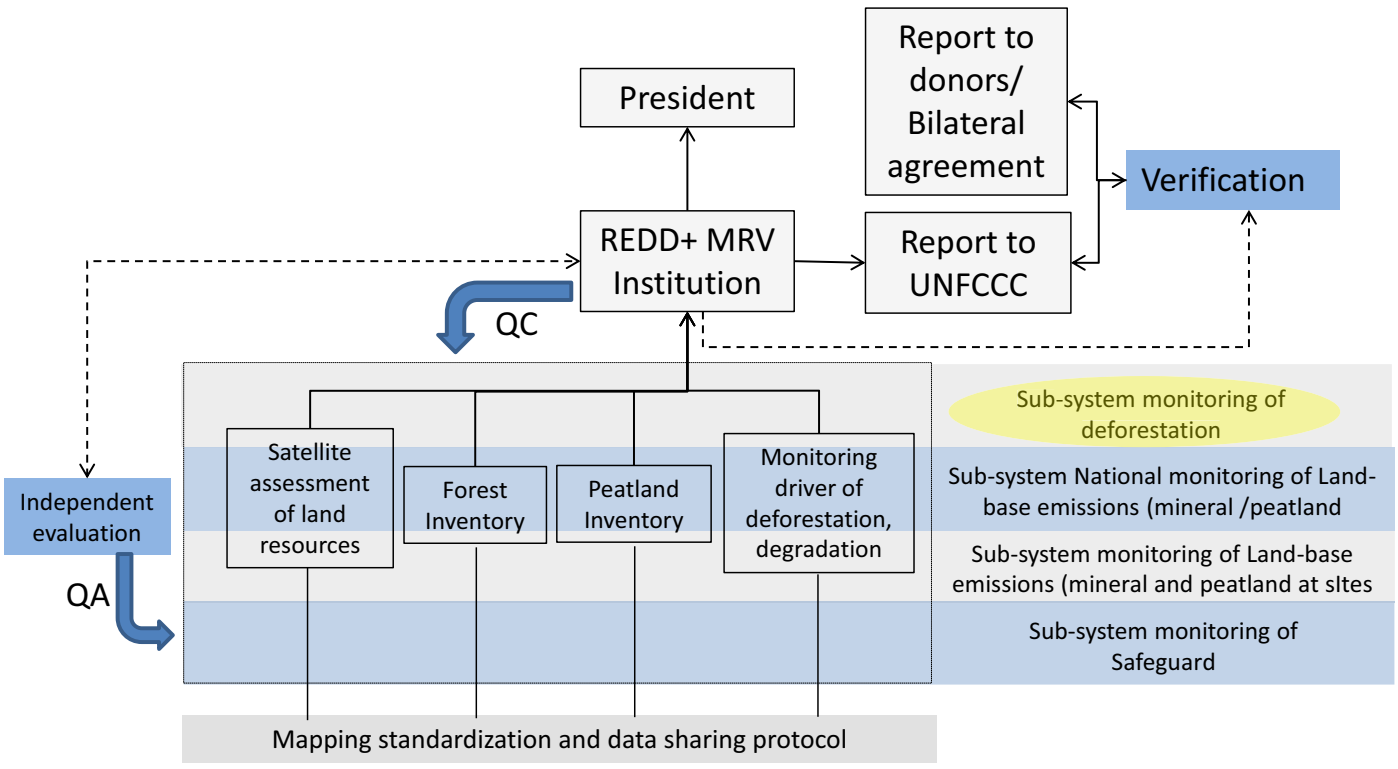
| Assumption | Scenario | 2009-11 | 2012-15 | 2016-20 | 2020-25 | Total '09-'25 |
|---|---|---|---|---|---|---|
| Planned Deforestation (000 ha/yr) | Baseline | 642 | 642 | 642 | 642 | 10272 |
| | Mitigation | 321 | 321 | 321 | 321 | 5136 |
| Unplanned Deforestation (000 ha/yr) | Baseline | 860 | 688 | 516 | 344 | 8772 |
| | Mitigation | 688 | 516 | 258 | 86 | 5160 |
| Forest Degradation (million $m^3$/yr) | Baseline | 13.43 | 15.37 | 18.54 | 23.31 | 297.58 |
| | Mitigation | 13.12 | 15.06 | 18.23 | 23.00 | 292.62 |
| Sink Enhancement: HTI (000 ha/yr) | Baseline | 150 | 150 | 150 | 150 | 2400 |
| | Mitigation | 300 | 300 | 300 | 300 | 4800 |
| HTR (000 ha/yr) | Baseline | 10 | 10 | 10 | 10 | 160 |
| | Mitigation | 50 | 50 | 50 | 50 | 800 |
| HKm/HD (000 ha/yr) | Baseline | 5 | 5 | 5 | 5 | 80 |
| | Mitigation | 10 | 10 | 10 | 10 | 160 |
| HR (000 ha/yr) | Baseline | 40 | 40 | 40 | 40 | 640 |
| | Mitigation | 90 | 90 | 90 | 90 | 1440 |
| RHL (000 ha/yr) | Baseline | 300 | 300 | 300 | 300 | 4800 |
| | Mitigation | 500 | 500 | 500 | 500 | 8000 |

# Potential Emission Reduction



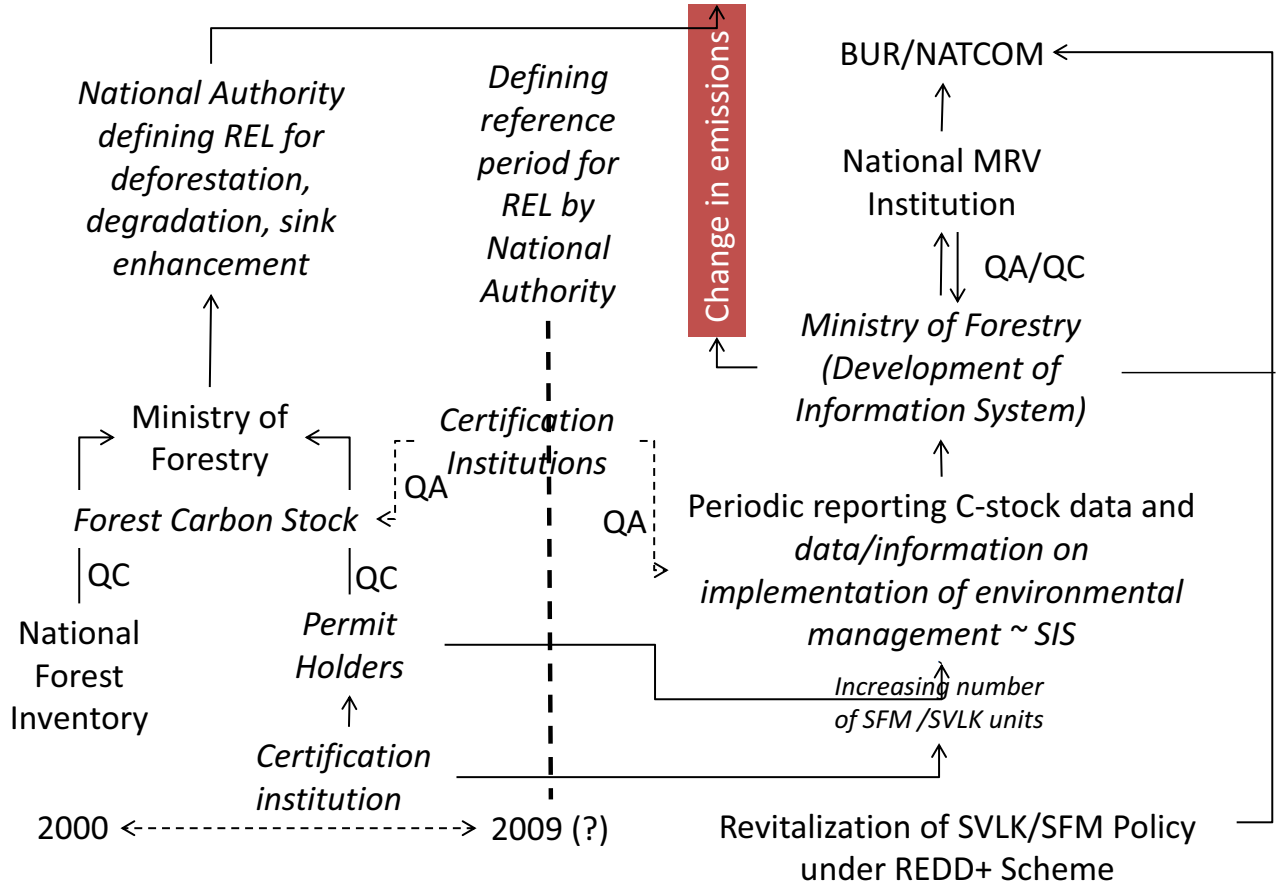

Cumulatively in the period between 2012 and 2025, total GHG emission reduction would reach 6.75 Gt $CO_2$. The potential emission can be achieved if all enabling conditions are in place: (i) FMUs being established can function effectively, (ii) lands for the implementation of sink enhancement are safe and conflict-free, (iii) good climate investment (e.g. consistency in policy and permit process, and credit access), and (iv) field facilitators/extension services for supporting community in implementing CFM available.

# Proposed Indonesian MRV & SIS System




*(Source: REDD Task Force, 2012)*

# Linking certification system to National MRV




# REDD+ Safeguard Information System

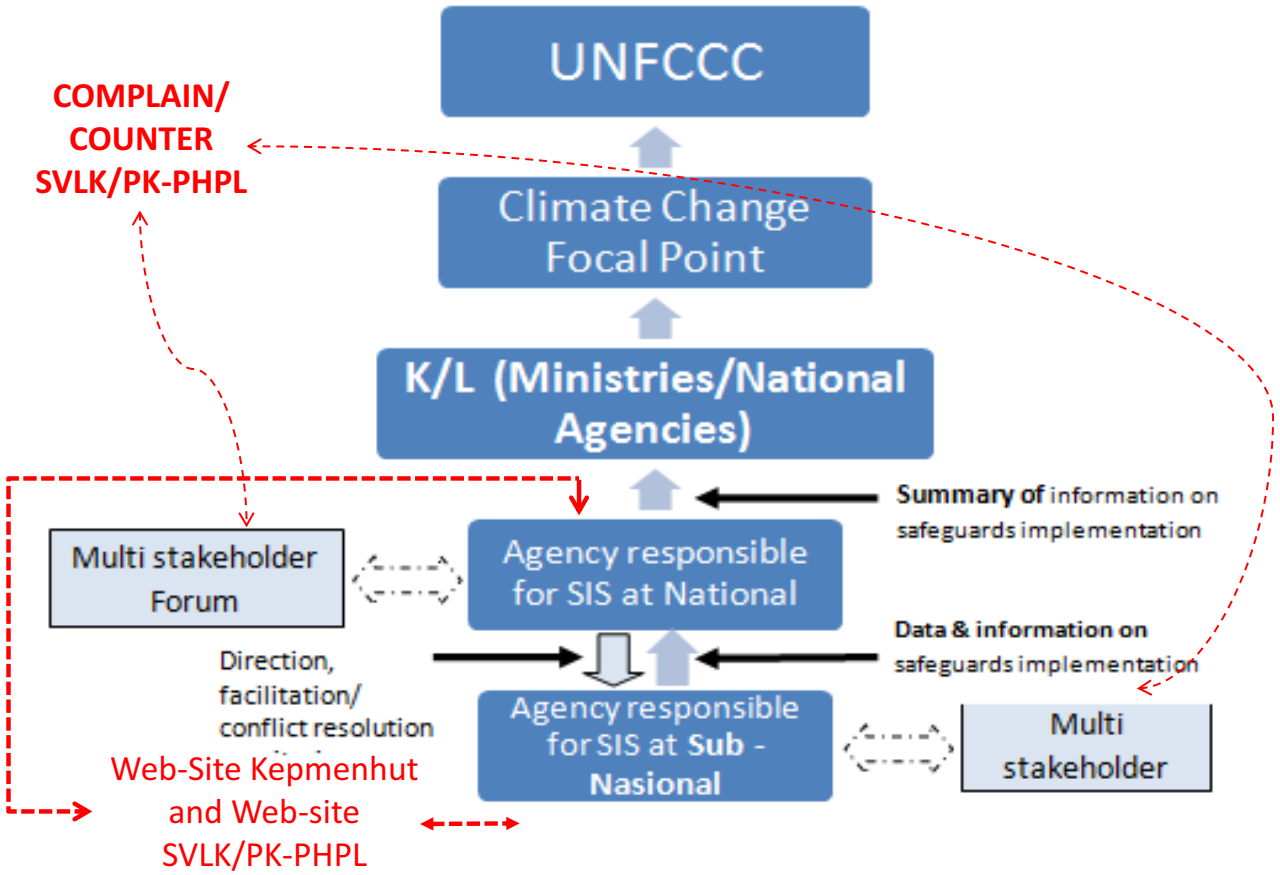
- Following the Decision 1/CP.16, developing country in the implementation of actions for REDD+ should develop safeguard information system (SIS).
- The term “safeguard” is often used in reference to measures, such as policies or procedures, designed to prevent undesirable outcomes of actions or programmes (Moss and Nussbaum, 2011).
- Safeguards are primarily designed to prevent harm in program implementation but can also support delivery of positive benefits and sustainable development goals
- In forestry sector, there are a number of policy instruments that are directly related to REDD safeguard (e.g. Forest Certification system such as PK-PHPL and SVLK)

# Compatibility of indicators/verifiers of SVLK/PK-PHPL with REDD+ MRV/Safeguard

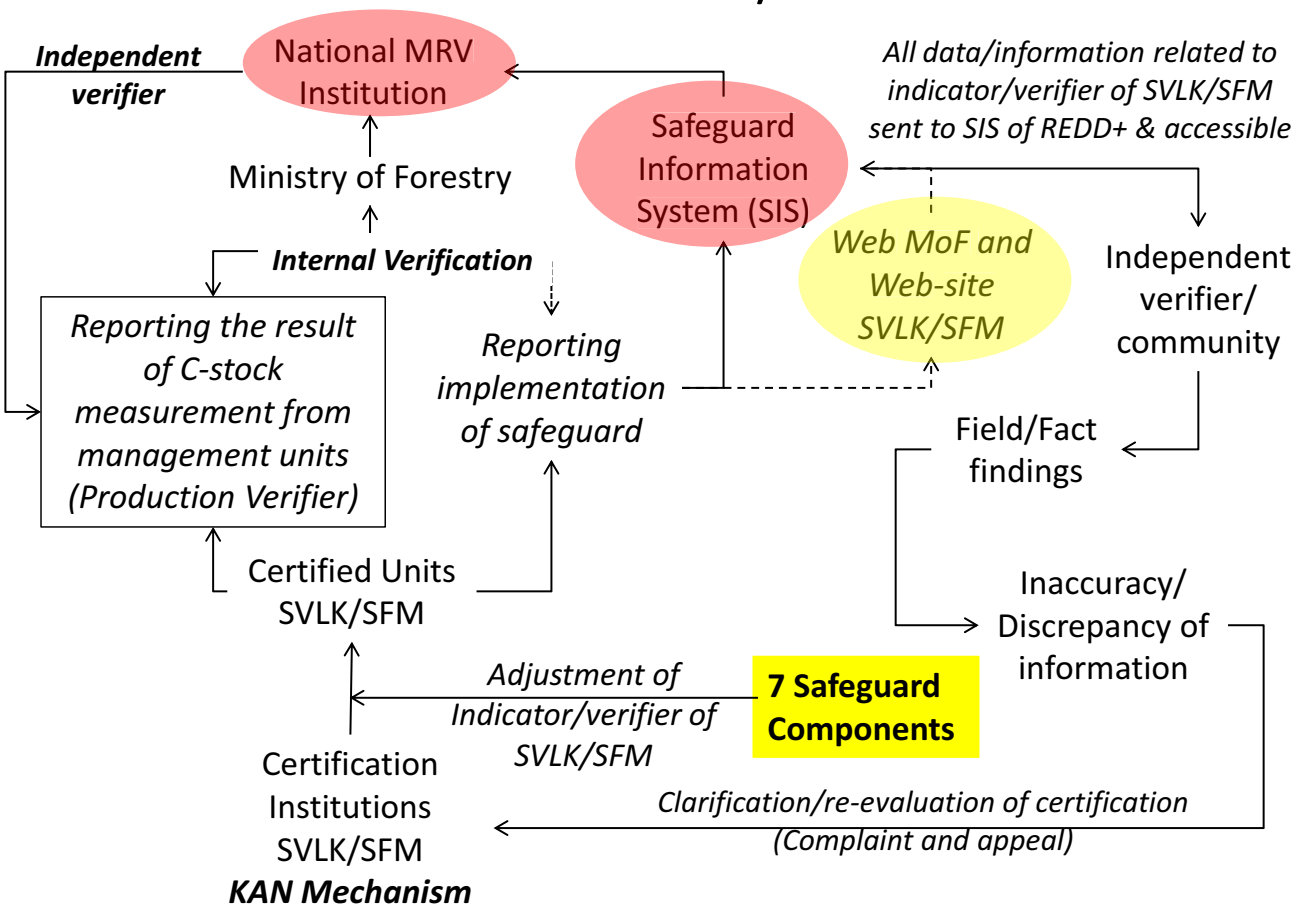
| | | Compatibility of indicators of SFM/SVLK with REDD+ MRV ad Safeguard | |
|---|---|---|---|
| | | SFM | SVLK |
| MRV | • Indicators related to change in carbon stock | + | 0 |
| SAFEGUARD Components | NFP/ Conventions<br>• Large scale<br>• Small scale | <br>+<br>– | <br>+<br>– |
| | Good governance, sovereignty | +/– | +/– |
| | Respect indigenous peoples | – | 0 |
| | Stakeholder engagement | + | + |
| | BioD, natural forest, ecosystem services | + | – |
| | Permanence of C (RPL/PPL) | + | – |
| | Leakage of C (RPL/PPL) | + | 0 |

**+** = compatible; **–** = need adjustment; **0** = not connection

# Proposed Institutional Structure for SIS REDD



# Integration of forest certification system with REDD+ MRV/SIS




# Concluding Remark

- Government of Indonesia has already developed strategies and action plans for SFM which will directly contribute to REDD+
- A number of financing and incentive policies are required to support the implementation of SFM strategies and action plans
- GHG emission reduction potential from the implementation of the SFM strategies between 2012 and 2025 may reach 6.75 Gt $CO_2$ cumulatively
- There are some adjustments that need to be done in the current SFM certification system to be fully compatible with REDD+ MRV and safeguard information system

International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia

# ANNEXES F
# PRESENTATIONS

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## Climate Change Policies of Forestry Sector in Korea

*Song, Kyong Ho*
*(Korea Forest Service)*

# Climate Change Policies of Forestry Sector in Korea

**May, 2012**

**SONG, Kyong Ho**
**Global Forest Resources and Trade Division**
**Korea Forest Service**

## Outlines

# Ⅰ. PREFACE

## FORESTRY AND CLIMATE CHANGE POLICY

□ $CO_2$ emission reduction, enhancement of carbon sink or conservation policies are the most interested areas among internati onal climate change policies

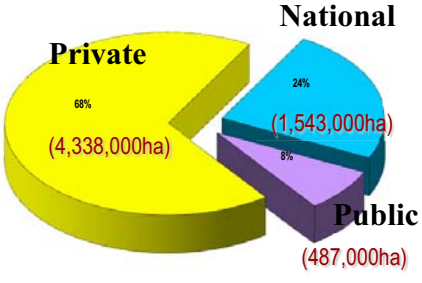
□ Korea Forest Service will adopt and promote greenhouse gas reduction project through enhancement of $CO_2$ offset in Korean forests and REDD as major policy

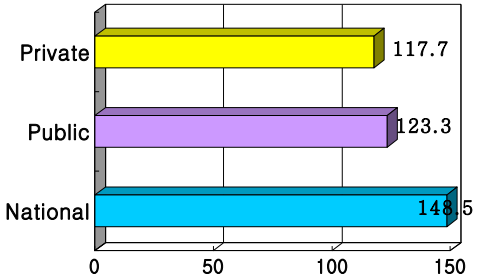
# Ⅱ. INTRODUCTION ON FOREST STATUS IN KOREA

## FORESTRY RESOURCES IN KOREA(2010)

□ Forest area(6.4M ha) : 64% of entire national territory (10M ha) in ROK

□ 68% OF THE FORESTS ARE PRIVATELY OWNED

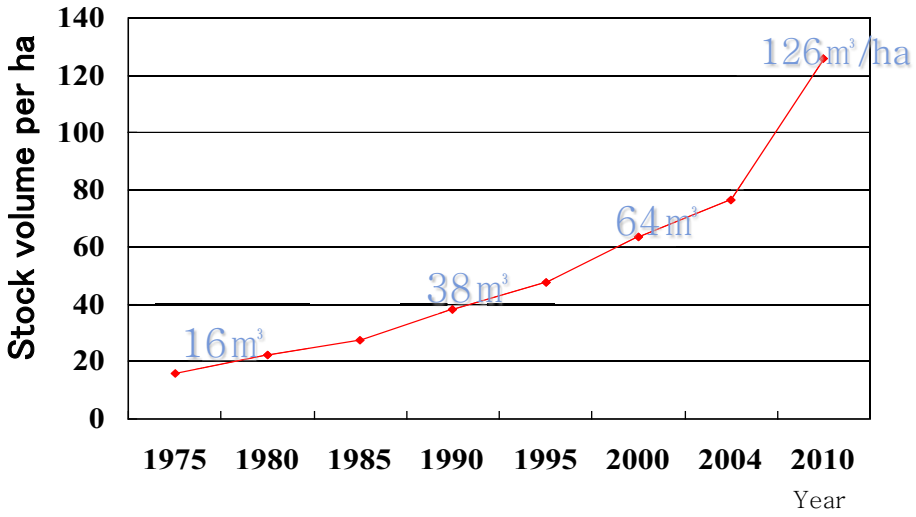



Total : 800M m3
Average : 126 m3/ha

## FORESTRY RESOURCES IN KOREA(2010)

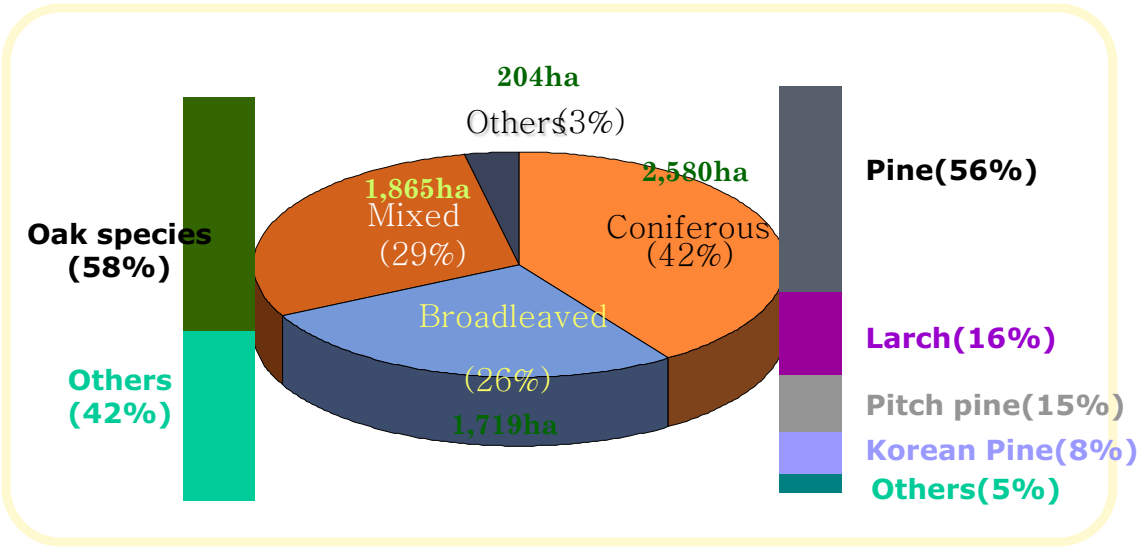
□ **Forest growing stock**
**(1975) 16㎥/ha → (2010) 126㎥/ha**
**(increase in 8 times)**




## FORESTRY RESOURCES IN KOREA(2010)

### FOREST TYPE DISTRIBUTION

□ **Coniferous forests make up a large proportion(42%)**



## Transition in forest policies

**Forest restoration Stage (1ST NFP)**

- Creation of fuel forests
- Erosion control projects, restoration of burned field

**Forest revegetation Stage (2ND NFP)**

- Completion of revegetation
- Beginning of forest management

**Resource development Stage (3RD NFP)**

- Expansion of plantation species
- Creation of commercial forests

**Initial stage of sustainable Management (4TH NFP)**

- Introduction of ecological forestation
- Intensive forest management

## The Fifth National Forest Plan(2008~2017)

**『Sustainable Green Welfare Nation』**

1. Integrated management and development of forest resources
2. **Enhancement of carbon sinks in forests**
3. Promotion of forest industry and competitiveness
4. Conservation and management of forest ecosystem
5. Urban forests and forest recreation
6. International forest cooperation

## ② Enhancement of carbon sinks in forests

- Target : a low-carbon green growth
- Plan on the voluntary emission reduction of ROK

**Forest carbon sequestration by modifying the forest management in existing forests and encouraging the use of forest products**

- Expansion of carbon sequestration through SFM
- Creation of urban forests and afforestation in non-forested land
- Introduction of a voluntary carbon market
- Development of the evaluation system of environmental impacts and adaptation approaches
- REDD, REDD+ activity
- Enhancement of ROK's role under Post-2012 climate change agreement

# Ⅲ. Low Carbon Gas Reduction, Green Growth

## On 15 August 2008, Korean President Lee's government declared "Low-carbon, Green growth"

- as the new national vision for Korea, replacing the incumbent manufacturing-based, export-oriented growth paradigm and implementing Green Growth **as the country's top national policy priority.**


Key policy targets

- Reducing greenhouse gas (GHG) emissions
- Fostering green technologies and industries

## Ⅳ. Basic Direction for Greenhouse Gas Reduction

- Agreed to reduce 244M $tCO_2$, accounting 30% of 813M $tCO_2$ under BAU scenarios of 2020, voluntarily (Nov. 2009)

  - Impose greenhouse gas reduction goal to approx. 450 private companies

  - Plan to introduce Emission Trading Scheme (ETS) from 2015

## Ⅴ. Greenhouse Gas Reduction Policy of Forestry Sector

- Carbon sink within forests of Korean national territory in 2010 is accounting 35M $tCO_2$
  - National greenhouse gas emissions (5.2% of 679M $tCO_2$ )
  - Promoting projects for enhancement of carbon sink including forest tending etc
  - Substitution of fossil fuel through nurturing forest biomass industries including wood pellet, etc

- Meanwhile, it is expected that Korean companies may show interests increa singly in REDD+ projects

- Enactment of 「Act on Maintenance and Enhancement of Carbon Sink」 (Dec, 2011)
  - for supporting GHG reduction from domestic and overseas by KFS

- Implementation of Intergovernmental Joint Pilot Project on REDD+
  - promote ROK-Indonesia joint pilot project on REDD+
    - Jointly performed FMU on peat land in Kampar, Sumatra for 3 years
    - Major contents of the Project
      : Enhancement on implementing ability of REDD+ project, nurturing experts, establishing cooperative governance, etc

- **Will be significant opportunity inducing interest and investment on REDD+ in Indonesian forest of Korean companies through pilot project**

※ **REDD+ cooperative projects in Indonesia (2 projects) :**
- **Development of methodology on REDD IN Lombok**
- **Joint research on REDD IN Lombok**

- **20,000 ha plantation for forest biomass Projects**

  - **Background**

    **Plantation for pilot project as a follow-up to the 「MOU on Development of Wood Biomass Energy Industry」 (March 2009)**

  - **Activities**

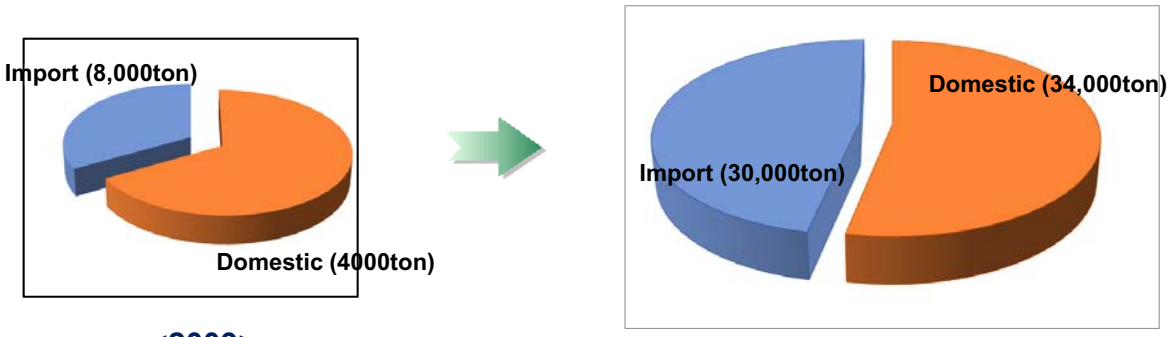
    **- Development of continuous system for wood biomass**
    **Nursery → plantation → harvesting → processing**
    **- New plantation for wood biomass energy production (20,000ha)**
    **- Wood pellet processing facility for the wood produced from plantation (200,000 tons/year)**

# DEVELOPMENT OF WOOD PELLET INDUSTRY

## WOOD PELLET MARKET SHARE IN KOREA

**In 2011, ~ 64,000 tons of wood pellet were supplied and used mostly for heating**

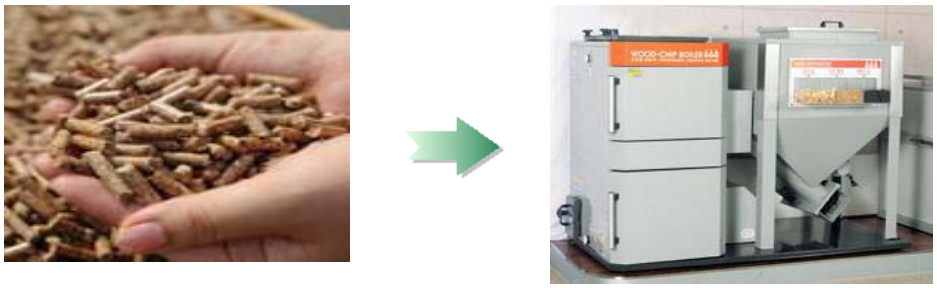
- **34,000 tons: Domestic production(16 companies)**
- **30,000 tons: Imported**




<2009> <2011>



## Wood Pellet production flow



## VI. Conclusion

- **KFS will actively**
  **- promote the expansion of investment by private companies for facilitating G to G project towards REDD+ project**

**- WILL PUT EFFORTS ON REDUCTION OF GHG TO BE EXPANDED AT INTERNATIONAL NEGOTIATION LEVELS SUCH AS AFoCO, ITTO, FAO, UNFCCC ETC**

# Thank you!

## Terimah Kasih!

International Meeting on Forest-Based Climate Change Policies and Action Plans in Indonesia

# ANNEXES F
# PRESENTATIONS

---

## Forest-Based Climate Change Policies and Action Plans

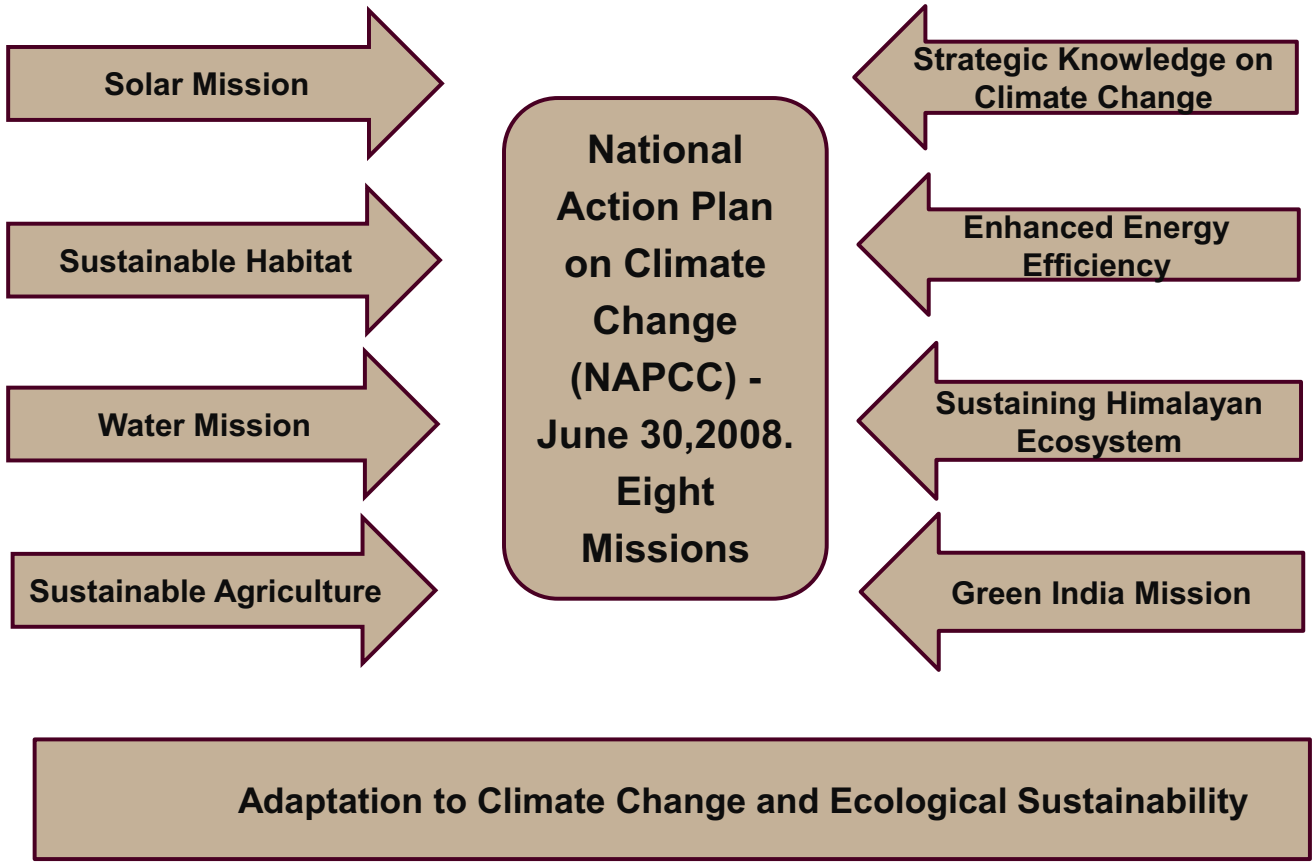
*N. C. Saravanan*
*(Ministry of Environment & Forest, India)*

Ministry of Environment and Forests
GOVERNMENT OF INDIA

# FOREST BASED CLIMATE CHANGE POLICIES AND ACTION PLANS

*May,10th,2012*

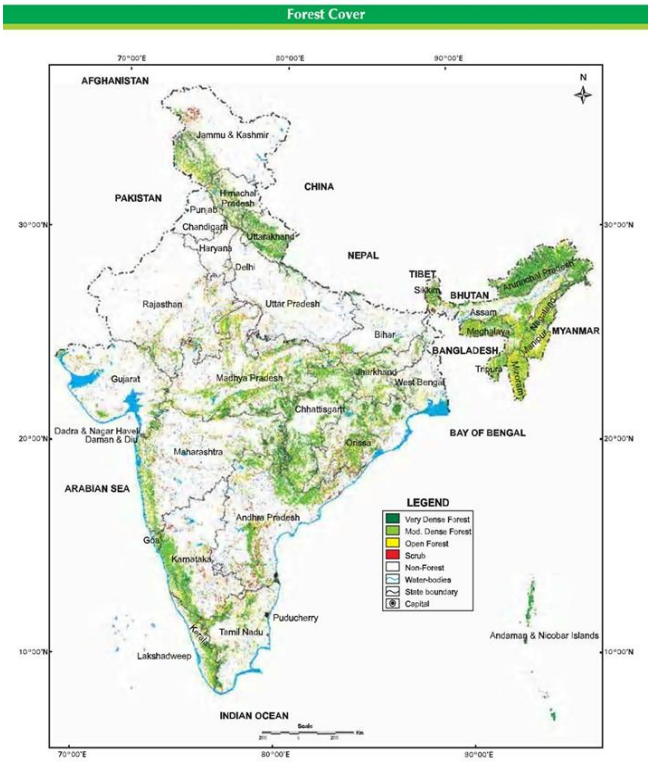
Ministry of Environment and Forests
GOVERNMENT OF INDIA



## Forests in India-Overview

- Second largest land use
- Forest and Tree cover-23.81 (78.29 mha)
- Low per capita forest area-0.06 ha
- Growing stock - 6 thousand cu m, carbon stock -7 thousand m t
- 16 major Forest types and 202 sub-types

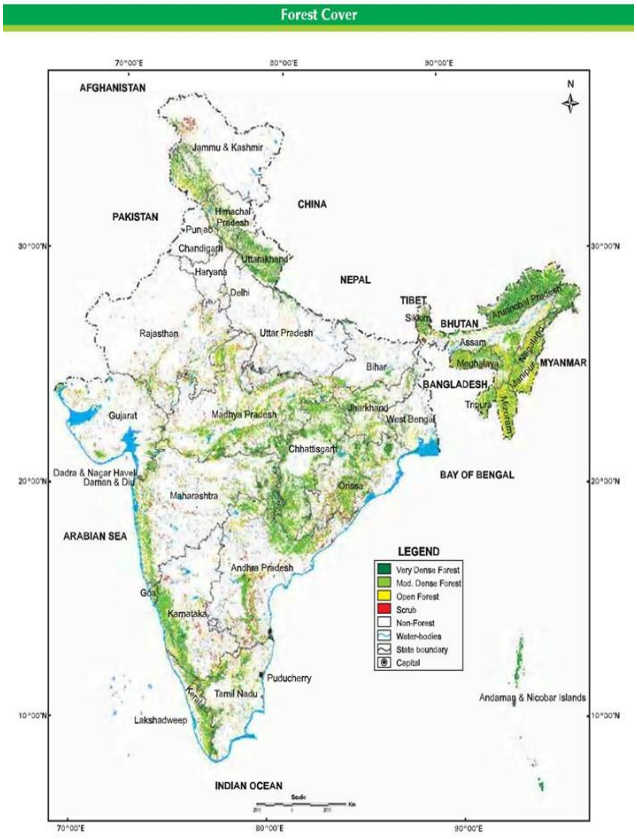
Montane-temperate-sub tropical-tropical






## Forests in India-Overview

- ❖ Mostly State-owned
- ❖ Joint Forest managament committees > l lakh and about 22 mha
- ❖ Rich diversity – Mega biodiversity – 4 hot spots
- ❖ 47000 floral and 90000 faunal species
- ❖ 16.1 m ha under PA network – 4.9% of GA
- ❖ 102 N.Parks - 515 WLS - 47 Cons. Reserves
- ❖ 39 Tiger reserves – 28 elephant reserves



## National Forest Policy,1988

- Provides the direction and support for sustainable forest management
  - Bring 33% land under forest or tree cover
  - Requirements - fuel wood, fodder & small timber - of rural and tribals - first charge on forests
  - Peoples involvement in forest management
  - Conservation oriented

## National Environment Policy 2006

Universal adoption of community based practices such as Joint Forest Management, Village Panchayats and their variants





# Regulatory Framework

- Strong legal frame work for protection conservation and management of forests in place
- Shared commitment of National and State Govts
- Major Legislations

  Indian Forest Act 1927/ State Forest Acts

  Wildlife (Protection) Act 1972

  Forest (Conservation) Act 1980

  - reduced annual diversion of forests to 1/4$^{th}$ from 1980

  - provides mandatory compensatory afforestation, NPV

  Forest Rights Act 2006

# Pressure on Forests

- Forest dependent people: ~ 300 million
- About 250 million cattle graze in forests
- Large part of domestic energy needs met from fuelwood (216 mt -23% from forests)
- Productivity - Gap between demand and supply
- Habitat fragmentation and degradation
- Illegal removals and trade in forest products and wildlife





**Focus on democratic decentralization**

1. Village level institutions
2. Polycentric and nested organisations

**Focus on ecosystem services**

1. Biodiversity, water ,biomass
2. $Co_2$ sequestration-co-benefit
3. Ecosystems like grasslands,

**Qualitative and Quantitative improvement**

(5 mha + 5 mha)

**Landscape-based Approach**

1. Treatment of forest and non forest areas
2. Key drivers of degradation

**Green India Mission**

**New cadre of Community Youth as Foresters**

## Mission Details- Mission Aim

**Respond to climate change by a combination of adaptation and mitigation measures, which would help**

1. •Enhancing carbon sinks in sustainably managed forests and other ecosystems;
2. •.Adaptation of vulnerable species/ecosystems to the changing climate; and
3. • Adaptation of forest-dependant communities



## Mission Details- Mission Objectives

1. • **Increased forest/tree cover on 5 m ha & improved quality on 5 m ha**
2. • **ecosystem services and carbon sequestration as a result**
3. • **forest-based livelihood income for 3 million**
4. **•Enhanced annual CO2 sequestration of 50-60 million tonnes by the year 2022**

## The Landscape Approach- Identification of operational units

### L1 units

- Vulnerability to climate change
- Forest cover
- Wastelands
- Vulnerable population

### L2 Units

**(5000-10000 ha operational units)**

- Biodiversity richness and habitat
- Poverty and dependency
- Ground water
- Forest type and ratio of forest
- Rainfed farming

### L3 Units

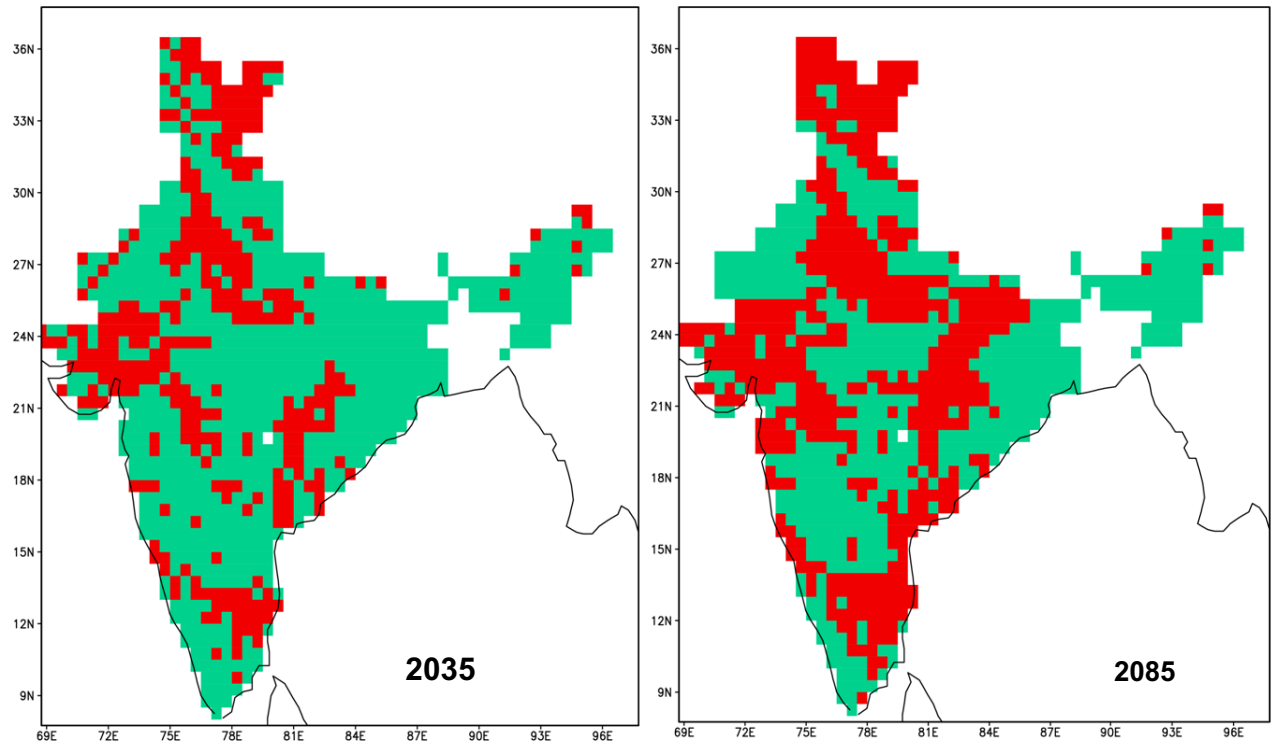
**Working units**

Hi-resolution imagery

- Resource use maps
- Boundaries/cadastral maps

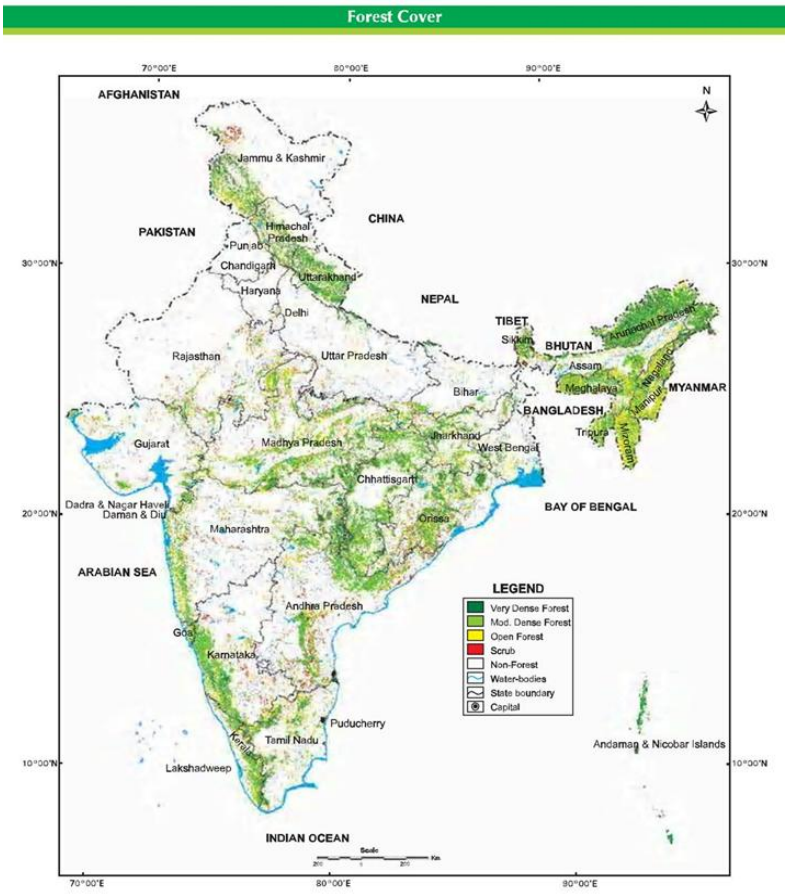


## Forest Vulnerability to Climate Change



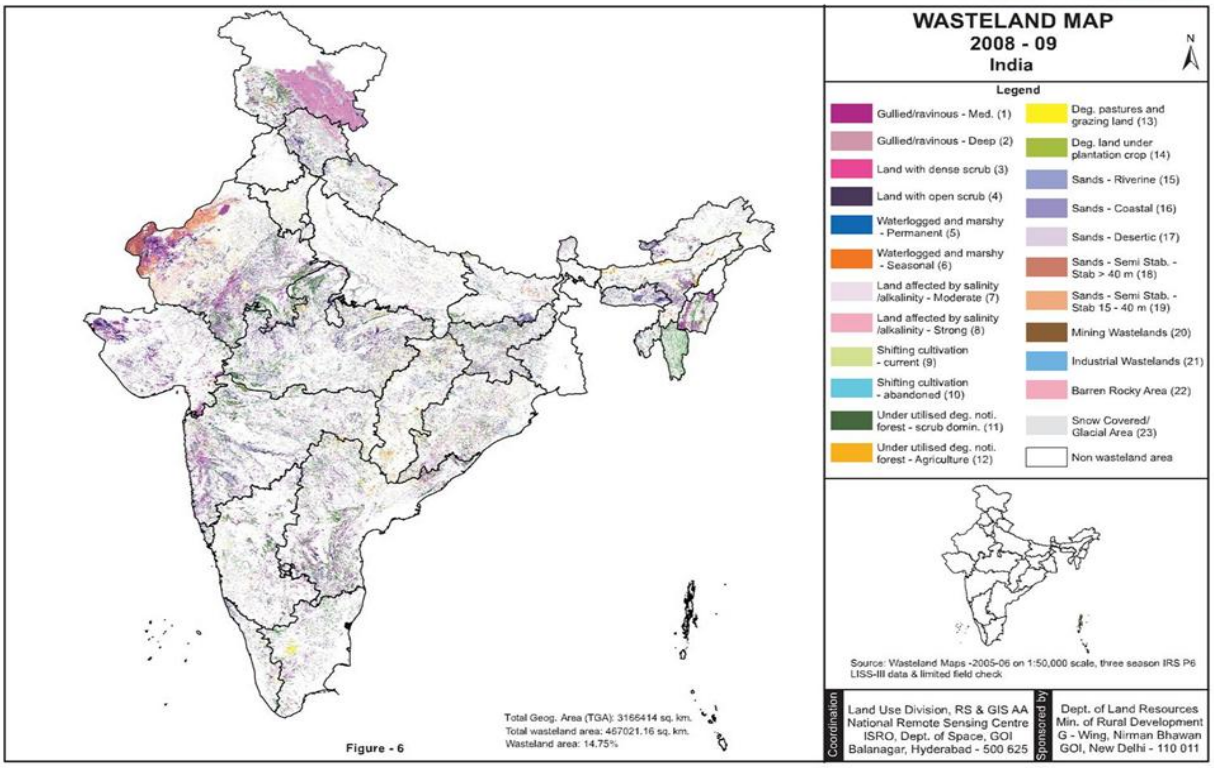

Vulnerable grids (marked red) (2035 and 2085)

# Forests Cover






# WASTELAND MAP OF INDIA



## Mission Details

**C. Mission Outputs:** 5mn ha quality improvement and 5mn ha new forest cover

1. **Qualitative improvement of forest cover/ ecosystems in**:
   - 1.5 m ha dense forests
   - 3.0 m ha of degraded forests
   - 0.4 m ha of grasslands
   - 0.1 m ha of wet lands
2. **Creating new forest cover through eco-restoration/afforestation**
   - 1.8 m ha of scrub, mangroves, ravines, cold desert, shifting cultivation areas, abandoned mining area
   - 0.2 m ha of urban peri urban
   - 3.0 m ha of agro/social forestry; no cultivable land
3. **Improved livelihoods,**
4. **Community institutions manage forests**
5. **Project area households adopt fuel wood efficiency and alternative RE devices**



## Mission Details-Sub Missions and Cross-cutting Initiatives

**(1) 5 Sub Missions (10 million ha)**

**(2) Corridors: Identification and working with an array of stakeholders to maintain cover; rapid agency response in case of crop raiding**

**(3) Livelihood enhancement: Provision of Rs 15-20 lakh for each village (30,000 villages)**

**(4) Support to Community Conserved Areas ( about 14,000 sacred grooves)**

**(5) Improved fuel use Efficiency and alternative energy devices - 3 million Households**

**(6) Identifying and protecting areas of hydrological significance**

## Mission Details

### Means to achieve Mission Objectives

- **Decentralized Forest Governance:**
  - Supremacy of Gram Sabha and its Committees **(Polycentric approach, not 'one size fits all')**
- **Revamping Forest Development Agency (FDA)**

- **Engaging new stakeholders**:
  - NGOs and Schools/Colleges: over 1 lakh NGC schools;10,000 colleges, NSS/NCC
  - Private sector especially in agro forestry, institutional lands, abandoned mines
- **Convergence with existing programs and other Missions**
- **Research:** Need assessment; adaption options, carbon capture potential by forest types, etc.
- **REDD Plus Cell:** Strategy; technical advice on REDD+ matters to Ministry and States
- **A People's Programme:** Outreach/Communication; Space for meaningful engagement



## Mission Details- Mission Monitoring Framework

**Improved monitoring at Outcome Level**

1. Self Monitoring by community and field staff (resource consumer best placed)
2. "Eye in the Sky" + GIS (geomatic)
3. Monitoring by third party
4. Monitoring key indicators (long term)

**Others**

- Social Audit
- Auditing by CAG/AG

## Mission Details

### H. Timeframe

- Mission to run 2011-2022
  - Mission implementation to coincide with **12th and 13th Five year Plan (from 2012 -13)**
  - Year 1 (2011-2012) to be preparatory year



## Mission Details - Mission Organisation

**National:** An autonomous society under Chair of Minister & Governing council

**State Level:** Revamped State Forest Development Agency

**District Level:** Revamped District FDA , linked to District Planning Committee

**Village level:** Gram Sabha and its Committees;

- In VI schedule area the Village Councils and Traditional Village Institutions

**In Urban Areas:** Ward level Committees /RWAs with support from Municipal organizations and the Forest Deptt.

## Preparatory year

Awareness and outreach

Micro planning

Landscape Survey

Entry point Activities and Soil Moisture conservation

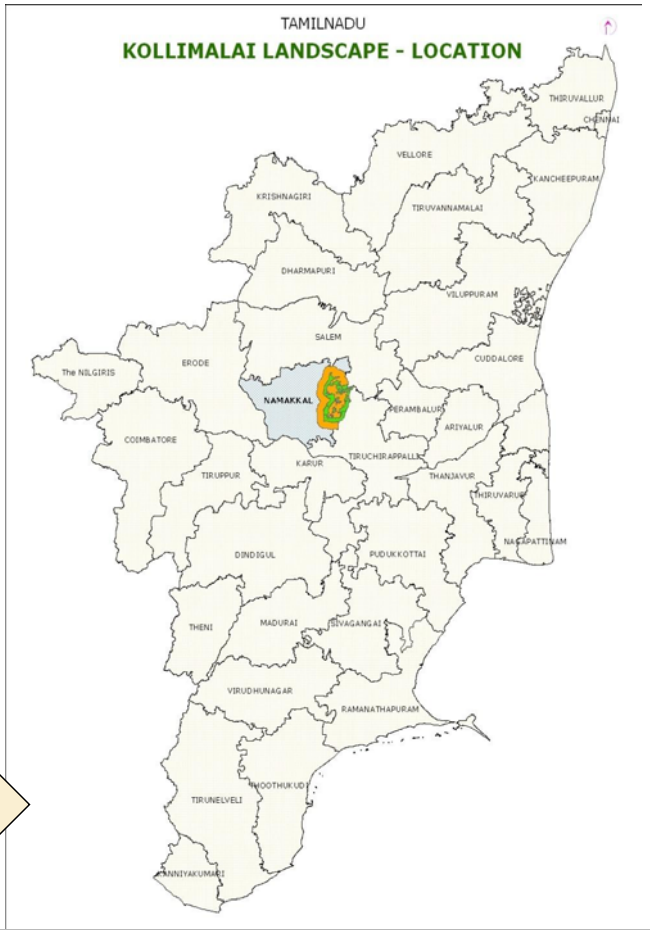
Nursery Development



## Case Study

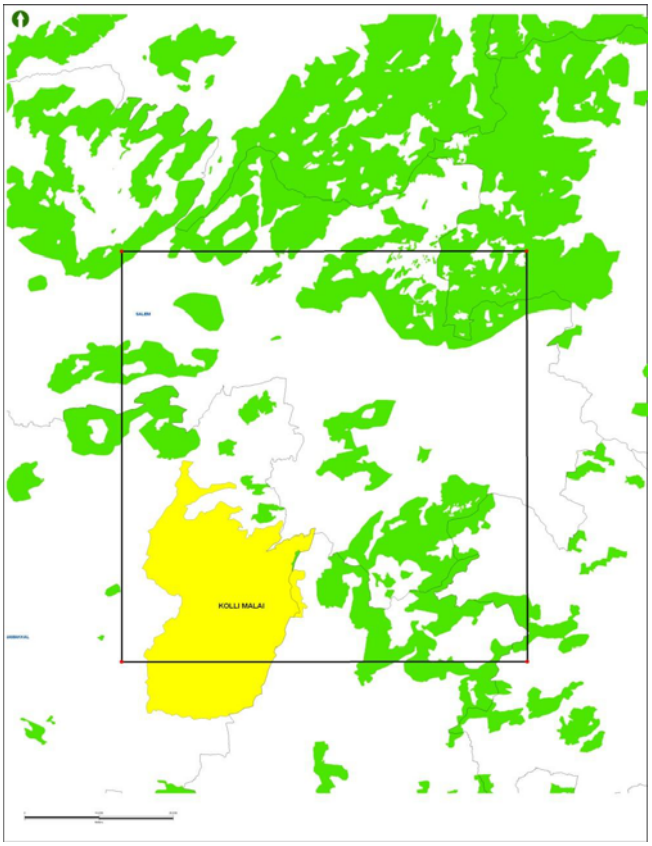
# Kolli hills in Namakkal District of Tamilnadu

# Case Study



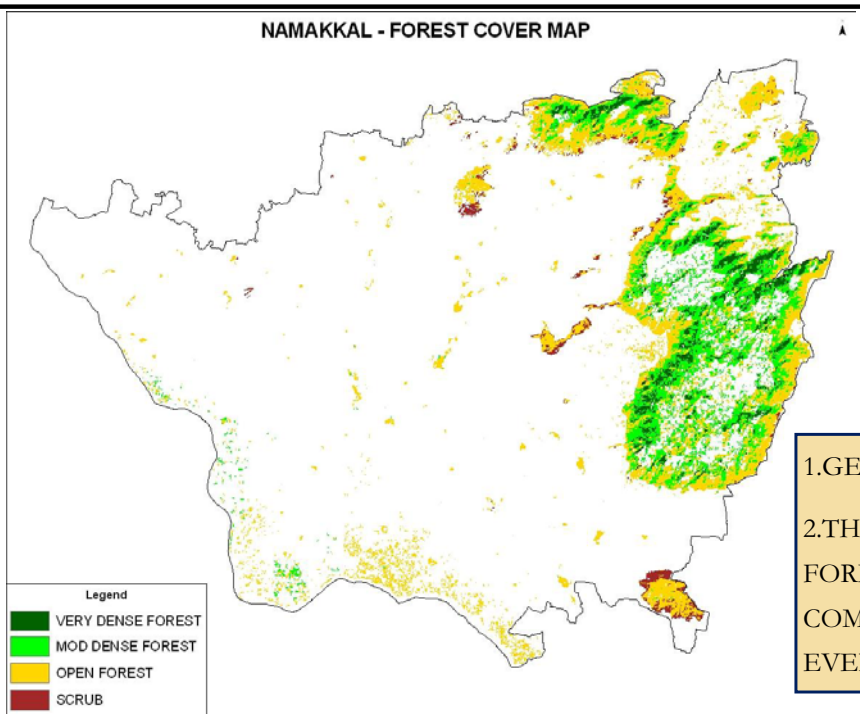

# Case Study




## Vulnerability

**KOLLIMALAI FALLS WITHIN THE GRID OF FOUR VULNERABLE POINTS**

# Case Study




| Category | Area in km$^2$ |
|---|---|
| VERY DENSE FOREST | 55 |
| DENSE FOREST | 189 |
| OPEN FOREST | 300 |
| SCRUB | 22 |

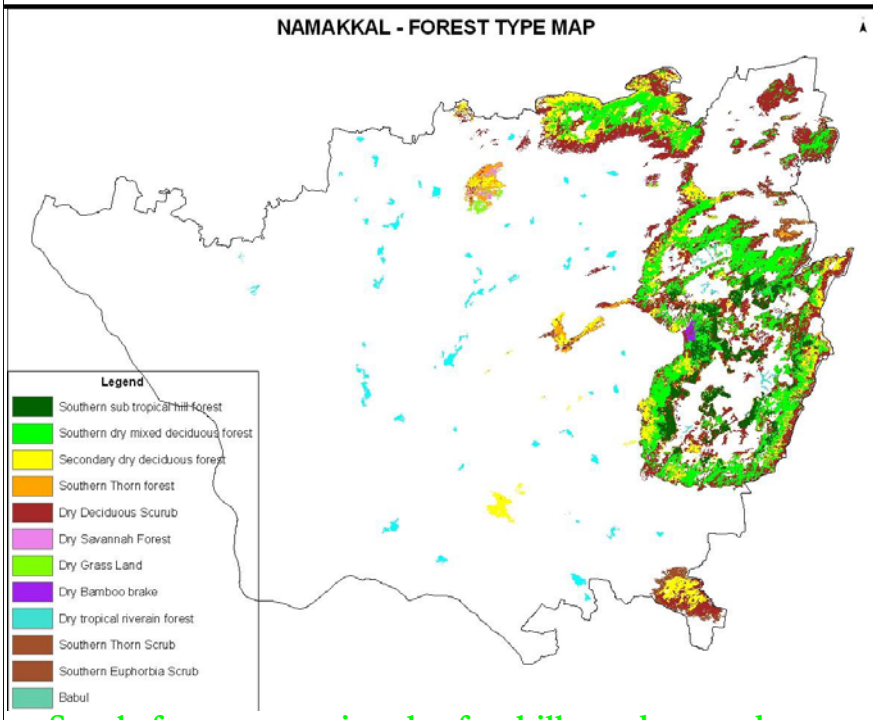
1.GENETICALLY DIVERSE

2.THE SOUTHERN SUB TROPICAL HILL FORESTS-UNIQUE ECOSYSTEM , COMBINATION OF EVERGREEN & SEMI EVERGREEN TYPE SHOLA FOREST

**In Kolli hills most of the forest regions are under sever exploitation, the dense forest cover in many areas are vanishing at an alarming rate. People who are in and around depend on forest for fuel wood, cattle grazing and non-timber forest produces.**



# Case Study

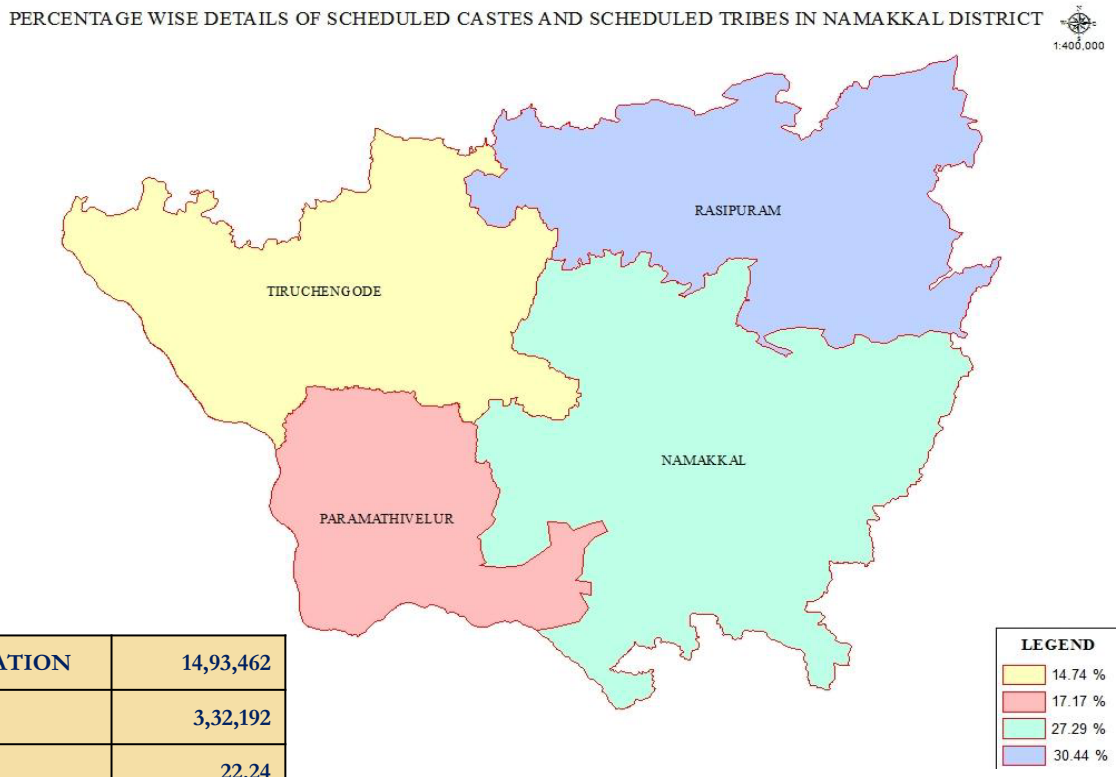



| FOREST TYPE | AREA IN Ha |
|---|---|
| Southern sub tropical hill forests | 4669 |
| Southern dry mixed deciduous forests | 15650 |
| Southern dry deciduous forests | 8640 |
| Southern thorn Forests | 1117 |
| Dry deciduous scrub | 20072 |
| Dry savannah forests | 205 |
| Dry grass lands | 225 |
| Dry bamboo brakes | 159 |
| Dry tropical riverain forests | 302 |
| Southern thorn Scrub | 1281 |
| Southern euphorbia scrub | 137 |

**Scrub forest occupies the foothills and extends up to 800 m, the deciduous forest occurs from 700 m to 1000 meters. The Southern sub tropical hill forests, a combination of Evergreen/semi evergreen shola forests available from 1000 m to 1400 m.**

# Case Study

## NAMAKKAL DISTRICT – SC & ST POPULATION MAP

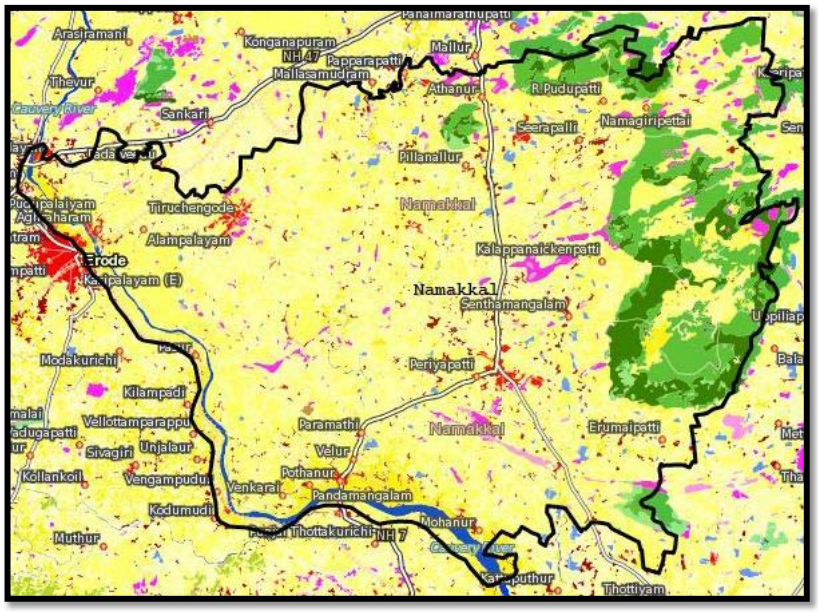


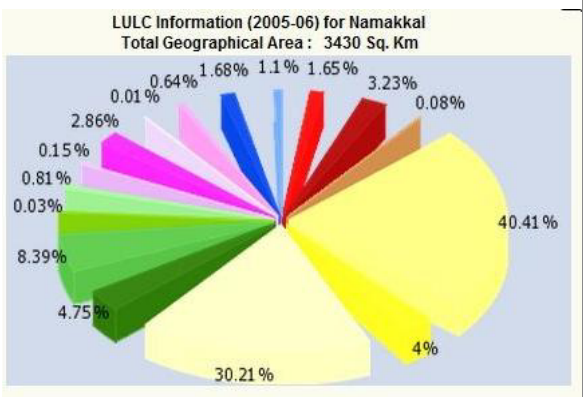

| | |
|---|---|
| TOTAL POPULATION | 14,93,462 |
| SC & ST | 3,32,192 |
| % OF SC & ST | 22.24 |

Socio Economic status far from Satisfactory



# Case Study

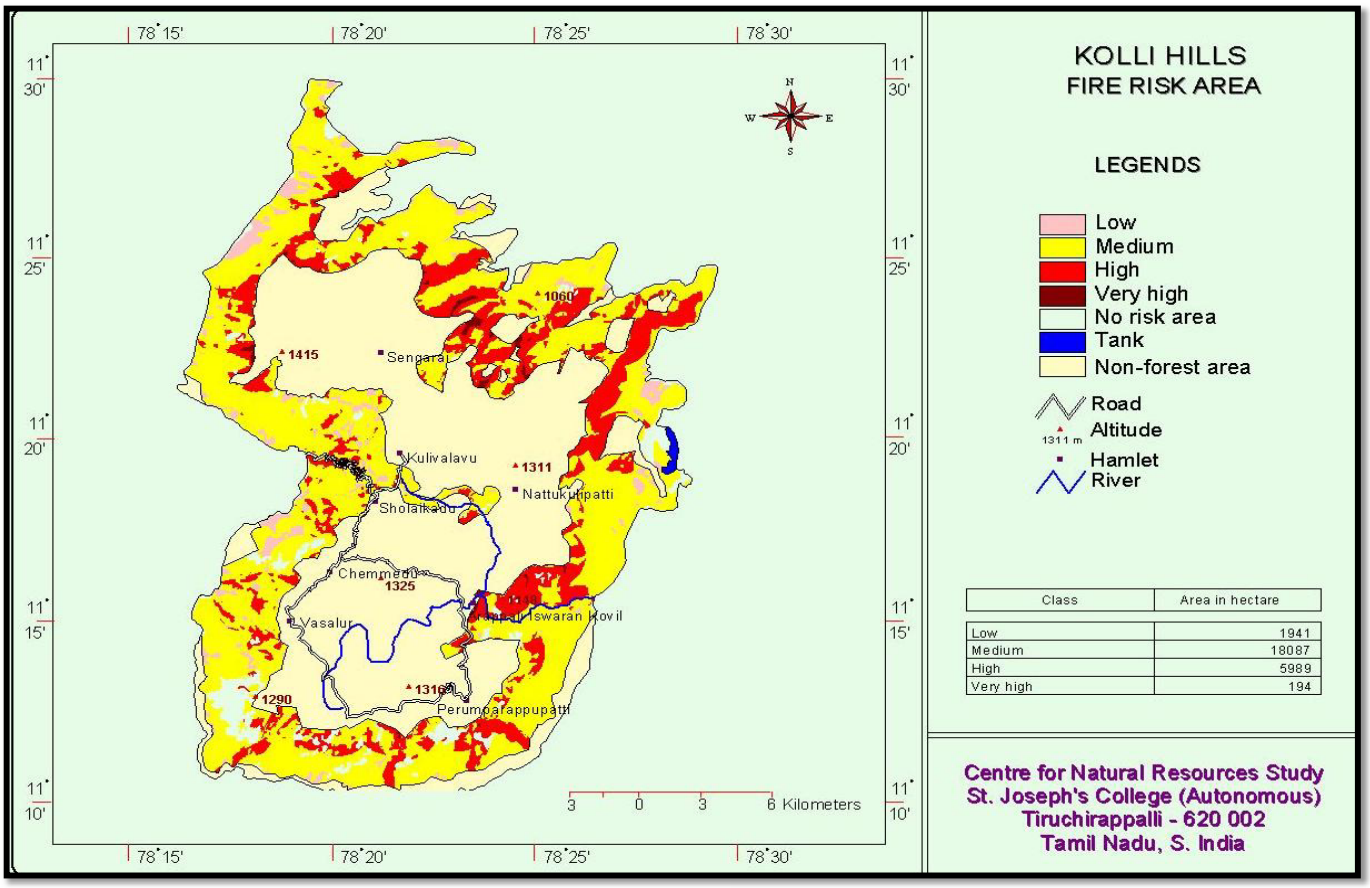



| LULC Class | Area (Sq.Km) | LULC Class | Area (Sq.Km) |
|---|---|---|---|
| Builtup,Urban | 56.68 | Builtup,Rural | 110.65 |
| Builtup,Mining | 2.78 | Agriculture,Crop land | 1386.21 |
| Agriculture,Plantation | 137.07 | Agriculture,Fallow | 1036.13 |
| Forest,Evergreen/ Semi evergreen | 162.87 | Forest,Deciduous | 287.64 |
| Forest,Forest Plantation | 1.05 | Forest,Scrub Forest | 27.93 |
| Barren/unculturable/ Wastelands, Salt Affected land | 5.02 | Barren/unculturable/ Wastelands, Scrub land | 98.06 |
| Barren/unculturable/ Wastelands, Sandy area | 0.42 | Barren/unculturable/ Wastelands, Barren rocky | 22.12 |
| Wetlands/Water Bodies, River/Stream/canals | 57.55 | Wetlands/Water Bodies, Reservoir/Lakes/Ponds | 37.82 |

**Dependent on Agriculture, poor yield, low income, health, literacy rate**

## Case Study






## Case Study

# GIM IMPLEMENTATION - OBJECTIVES

- INCREASE FOREST / TREE COVER
- IMPROVE QUALITY OF FOREST COVER
- IMPROVE ECO SYSTEM SERVICES INCLUDING BIODIVERSITY, HYDROLOGICAL SERVICES AND CARBON SEQUESTRATION
- INCREASE FOREST BASED LIVELIHOOD INCOME
- ENHANCED ANNUAL CO2 SEQUESTRATION
- CONSOLIDATION OF THE EARLIER EFFORTS
- ENHANCING TREE COVER OUTSIDE FOREST AREA IN KOLLIMALAI LANDSCAPE THROUGH AGRO FORESTRY

# STRATEGIES

- IMPROVING LAND BASED ASSETS TO AUGMENT INCOME
- SOIL AND MOISTURE CONSERVATION
- PROVIDING BASIC AMENITIES,CREATING COMMUNITY ASSETS SUCH AS COMMUNITY HALLS, LIBRARY ETC.
- CREATING WAGE BASED OPPORTUNITIES AND CAPACITY BUILDING
- AIDED NATURAL REGENERATION OF DEGRADED FOREST AREA
- IMPROVING TRIBAL AND LAND BASED ASSETS TO AUGMENT INCOME





| TOTAL AREA OF THE LANDSCAPE | 88,470 Ha |
|---|---|
| KOLLIMALAI RFs AREA | 28198 Ha |
| AREA OF OPERATIONAL UNIT FOR 10 YEARS | About 5,000 Ha |
| AREA OF WORKING UNIT PER ANNUM | About 500 Ha |

## Case Study

**SUB-MISSION 1:** ENHANCING QUALITY OF FOREST COVER - MODERATELY DENSE FORESTS AND OPEN FORESTS, MOSTLY ON FRINGE VILLAGES.

**SUB-MISSION 2:** ENHANCING TREE COVER IN URBAN AND RURAL TRACTS COVERING INSTITUTIONAL LANDS, MUNICIPAL LANDS, INDUSTRIAL HOUSES ETC.

**SUB-MISSION 4:** AGRO FORESTRY (INCREASING BIOMASS AND CREATING CARBON SINKS) COVERING NON-FOREST LANDS LIKE ROADS ETC.



## Case Study

IT IS PROPOSED TO IMPLEMENT GIM THROUGH 56 JFMCs/GRAMSABHAS OVER A PERIOD OF 10 YEARS

## Case Study

| Sl.No | Forest Area | Non Forest Area |
|---|---|---|
| 1 | Pongamia pinnata | **Artocarpus integrifolia** |
| 2 | Azadirachta indica | **Tectona grandis** |
| 3 | Emblica officinalis | **Gmelina arborea** |
| 4 | Ficus religiosa | **Grevillea robusta** |
| 5 | Terminalia arjuna | **Bamboo sps.** |
| 6 | Syzygium cumini | |
| 7 | Dalbergia sisso | |
| 8 | **Bamboo sps.** | |





# Thank You

# ANNEXES

## G. PHOTOGRAPHS DOCUMENTATION

# PHOTOGRAPHS DOCUMENTATION


# PHOTOGRAPHS DOCUMENTATION


# PHOTOGRAPHS DOCUMENTATION


# PHOTOGRAPHS DOCUMENTATION



# ITTO pun Kagumi Pola Usaha Bagi Hasil KPWN

**Keberhasilan Usaha Bagi Hasil Koperasi Perumahan Wanabakti Nusantara (UBH-KPWN) dalam mengembangkan bisnis tanaman Jati Unggul Nusantara (JUN) ternyata juga mengundang kekaguman lembaga internasional, Organisasi Kayu Tropis Internasional (ITTO). Kekaguman ITTO terutama dalam masalah pola bagi hasil keuntungan yang dikembangkan KPWN belakangan, terutama dalam imbasnya memberdayakan ekonomi pedesaan.**

Hal itu terlihat ketika sedikitnya 36 delegasi dari 20 negara anggota ITTO yang melakukan kunjungan kerja ke Cikampek, Jawa Barat pada Jumat (11/5), untuk menyaksikan dan mewawancarai langsung petani penggarap yang dilibatkan dalam pengembangan bisnis penanaman Jati Unggul Nusantara (JUN) oleh UBH KPWN. Seperti diketahui, dalam pengembangan bisnis JUN, pihak UBH KPWN melibatkan 5 pilar. Mereka itu terdiri dari pemilik modal, pemilik lahan, petani penggarap, perangkat desa serta manajemen.

Dalam dialog santai di areal tanaman jati (*Tectona grandis*) di Desa Cikopo, dan Desa Cinangka, Kecamatan Bungur Asri, Kabupaten Purwakarta, Jawa Barat para delegasi bebas menanyakan apa saja kepada petani, dan tentunya pengelola UBH KPWN sendiri.

Di lokasi ini, UBH KPWN telah menanam JUN berusia 2 tahun sebanyak 50.000 pohon dan berusia 4 bulan sekitar 51.240 pohon. Di sekitar wilayah Purwakarta sendiri telah tertanam JUN sekitar 225.000 pohon.

**Cecar pertanyaan**

Para delegasi pun terlihat sangat antusias terhadap bisnis UBH KPWN yang melibatkan petani kecil di sekitar kawasan itu. Rupanya, sebelumnya sudah dapat informasi singkat mengenai pola bagi keuntungan ini -- lewat video yang diputar di bus sepanjang perjalanan dari Manggala menuju lokasi. Begitu tiba di lokasi, mereka banyak yang masih penasaran, terutama mengenai keterlibatan dan hak-hak petani penggarap.

Itu sebabnya, sejumlah delegasi minta keterangan langsung alias konfirmasi kepada petani penggarap. Benarkah mereka dapat upah sebagai pemelihara pohon serta punya hak menerima bagian dari jerih payahnya, mulai dari menanam, memelihara JUN sampai saat panen nanti?

Seorang delegasi bertanya kepada seorang petani, Kosim Zainal, apakah boleh menanam palawija di lahan yang ditanami JUN? Melalui Bambang Miarso yang menerjemahkan, Zainal menjawab memang dibolehkan. Menurut Bambang, yang kebetulan supervisor UBH JUN wilayah Yogyakarta, petani bebas mengembangkan palawija yang akan dikembangkan, apakah ubi jalar, jagung, kedele, kacang panjang atau kacang tanah.

Delegasi tadi melanjutkan pertanyaannya kepada Zainal, yang kebetulan juga Kepala Desa Cikopo, apakah hasil tumpangsari itu nantinya juga dibagi kepada 5 pilar yang bergabung dalam pengembangan bisnis JUN. Dia mengatakan, hasil tumpangsari itu seluruhnya menjadi hak petani penggarap.

Delegasi lain tampaknya kurang yakin, dan dia mencecar Zainal dengan pertanyaan apakah hasil penjualan tumpangsari itu nantinya akan dipotong dari hak petani setelah JUN dipanen. Zainal menyatakan tidak. "Hak petani penggarap tetap utuh, yakni 25% dari hasil penjualan setelah 5 tahun panen nanti."

Bambang Miarso, yang mewakili manajemen JUN, menyatakan bahwa hasil penjualan tumpangsari merupakan bonus bagi petani yang rajin memanfaatkan lahan sela. Di samping hasil tumpangsari, pihak manajemen masih memberikan upah pemeliharaan dari setiap tanaman yang dibayarkan setiap 3 bulan.

**Kampanyekan**

Fakta ini yang membuat kagum ITTO.


Delegasi ITTO berfoto bersama petani Jati Unggul Nusantara dan Pengurus UBH KPWN.

Beberapa delegasi menerangkan, pola usaha bagi keuntungan versi UBH-KPWN belum pernah didengar dan diterapkan sebelumnya di negara lain. Mereka mengaku baru mengetahui dan menyaksikan sendiri tanaman JUN dengan menggunakan pola bagi hasil yang melibatkan 5 pilar. Dalam obrolannya itu, mereka yakin pola bagi hasil dengan melibatkan 5 pihak merupakan yang pertama dikembangkan di Indonesia.

Untuk itu, para delegasi berjanji akan membantu mengkampanyekan pola ini ke seluruh dunia, minimal ke sejumlah negara yang akan dikunjunginya. Mereka yakin, pelibatan petani secara langsung dan memberikan hak berupa bagian dari hasil penjualan merupakan teladan yang perlu dicontoh dan dikembangkan dalam upaya memberdayakan ekonomi pedesaan.

Seorang peserta delegasi yang penasaran tak urung bertanya siapa yang mencetuskan ide pola bagi hasil dengan melibatkan 5 unsur tadi. Bambang Miarso menjawab, tokoh yang pertama kali memperkenalkan dan sekaligus melaksanakannya tak lain Ir Hariyono Soeroso, MM -- yang kini Direktur Utama UBH KPWN.

Hariyono sendiri, yang ditanya siapa yang memberi inspirasi pola bagi hasil dengan 5 pilar tersebut, mengaku hanya berdasarkan insting kepantasan dan kelayakan saja. Meski begitu, dia mengaku sempat pusing untuk menetapkan besaran persentasi pembagian yang dianggap adil dan bijaksana serta tetap dapat menarik pemilik uang dan pemilik lahan untuk investasi di JUN.

Sampai sekarang, mulai dari awal perencanaan hingga pengembangan JUN, Hariyono mengaku tidak ada gurunya ataupun buku panduan yang bisa dibeli di toko buku. "Gurunya adalah pengalaman," katanya.

Karena itu, sejak menghitung pembagian keuntungan, sampai pemilihan bibit unggul semuanya dilakukan sambil berjalan dan belajar (*learning by doing*). Dan dia mengaku tak pernah lepas syukur bahwa hitungannya itu kini mulai memetik hasil. Tanaman jati yang berumur 5 tahun sudah bisa panen dan ada pembelinya. AI

Indonesia's Ministry of Forestry – International Tropical Timber Organization
Project RED-PD 007/09 Rev. 2 (F)
Enhancing Forest Carbon Stock
to Reduce Emission from Deforestation and Degradation
through Sustainable Forest Management (SFM) Initiatives
in Indonesia

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