



IJ-REDD+ PROJECT

Indonesia-Japan Project for Development
of REDD+ Implementation Mechanism



JICA Effort to Mitigate Climate Change in Forest and Land Sector in Indonesia - IJ-REDD+ Project -

Shigeru Takahara
Chief Advisor/Forest & REDD+ Policies
IJ-REDD+ Project MoEF-JICA
August 6, 2015

EXPERIENCES OF RECENT AND ON-GOING JICA COOPERATION

Climate Change

JICA's Assistance for Climate Change Mitigation & Adaptation

Support for RAN-GRK, RAD-GRK
BAPPNEAS RAN-GRK Secretariat

Support for National GHG Inventory
Ministry of Environment

Support for Enhancement of Climate Change Policies, UNFCCC COP (Indonesia Pavilion)
DNPI

Support for Facilitation of JCM (Joint Credit Mechanism)
Menkoekuin

IJ-REDD+ Project (2013-2016)

Develop Provincial Level REDD+ Mechanism

Develop REDD+ Model in National Park and Surrounding Landscape (Pilot Site)

Forest Conservation

Policy Supports on Forest Conservation

Facilitation of the Implementation of National Forestry Strategic Plan 2009-2012

REDD+ / Forest Resources Management & Carbon Stock Monitoring

Accuracy improvement of forest resources management by satellite
Forest Resources Management through Satellite Image 2008-2011

Carbon management/Carbon stock evaluation/Fire detection system
JICA-JST Wild Fire and Carbon Management in Peat-Forest 2010-2015

Decreasing/Prevention & Minimization of Damage by Forest Fire

Community Development of Fires Control in Peat Land Area 2010-2015



Forest Resources Effective Use/Community Livelihood Improvement

Facilitating Development of Wood Industry in Small Diameter Logs Processing 2011-2013

Mangrove Preservation/Rehabilitation

ASEAN Cooperation on Mangrove Ecosystems Conservation 2011-2016

Restoration of Conservation Area

Capacity Building for Restoration of Ecosystems in Conservation Areas 2010-2015

Biodiversity Conservation

Policy Supports on Biodiversity Conservation

Ecosystem Management and Biodiversity Conservation advisor 2008-2010

Biodiversity Conservation in Conservation Area

Strengthening Biodiversity Conservation through Appropriate NP Management and Human Resource Development 2009-2012



Natural Environment Conservation / Sustainable Development

IJ-REDD+ Project

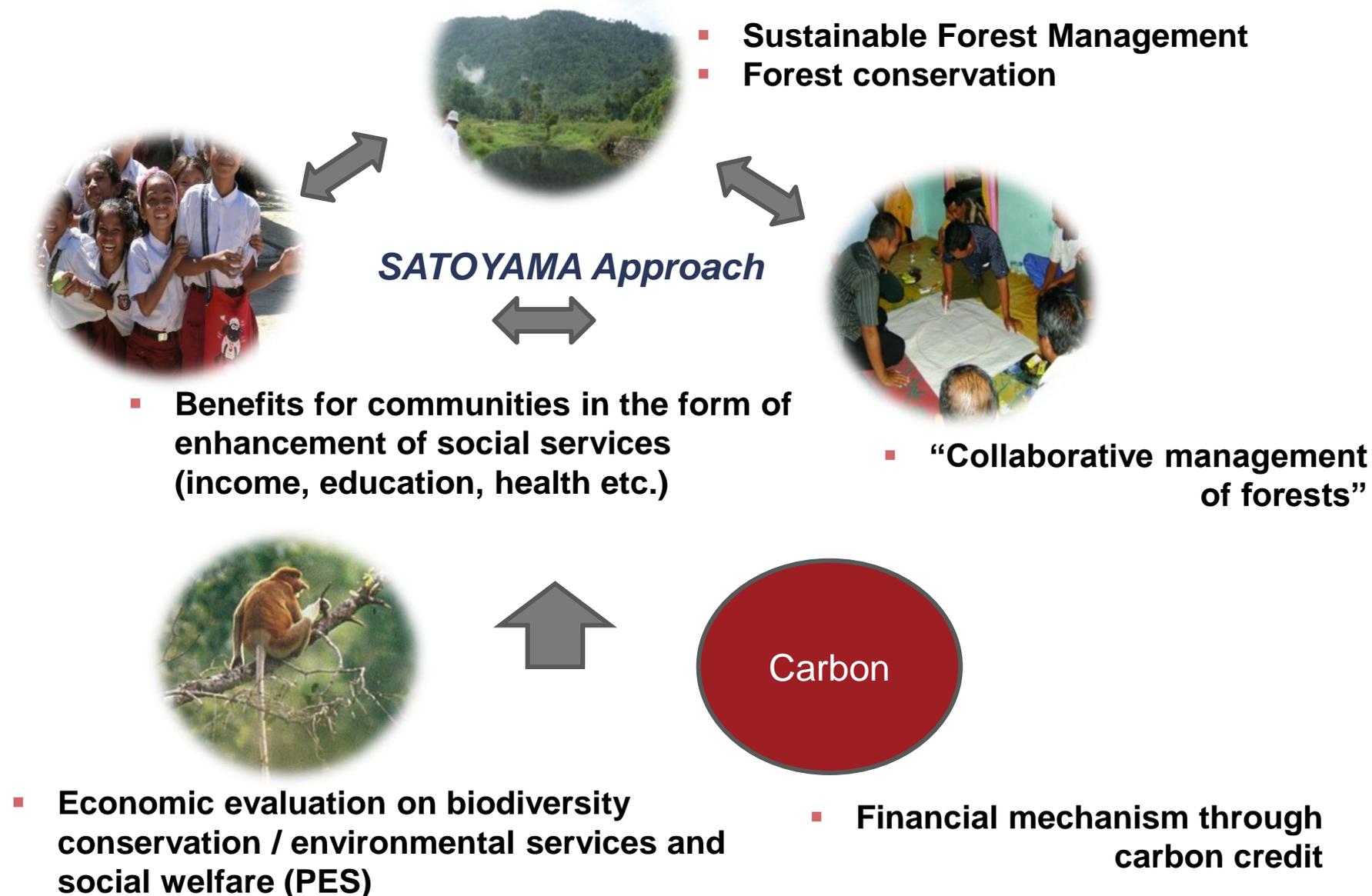
Indonesia-Japan Project for
Development of REDD+ Implementation
Mechanism (IJ-REDD+)

- ❖ RoD signed on February 4, 2013 by Ministry of Forestry Indonesia and JICA
- ❖ Duration: (June 2013 – June 2016)
- ❖ Implementing Agency: Directorate of Environmental Services in Conservation Areas and Protection Forests, MoEF
- ❖ *Target Provinces:*
West Kalimantan, Central Kalimantan

Background

- **JICA`s long experiences of cooperation in the forestry sector in Indonesia**
 - *Cutting edge technologies*
 - *Biodiversity conservation*
 - *Community participation*
- **Japan`s commitment for addressing global warming issues**
 - *Bilateral Document on Climate Change Cooperation between Indonesia and Japan (November 2011)*
 - *Joint Statement between MoFor and JICA on Cooperation on Climate Change in Forestry Sector (March 2012)*
 - *Bilateral Document to Start JCM (Joint Credit Mechanism) signed between Indonesia and Japan (August 2013)*
- **Interests of private sectors in contributing forest conservation and restoration**

IJ-REDD+ VISION: forests for people



Outputs, Purpose and Overall Goal of IJ-REDD+ Project

West Kalimantan

Output 1: Sub-national framework on REDD+ is developed

Output 2: National park REDD+ model is developed at GPNP (& landscape)

Output 3: REDD+ model for HP/HL/APL is developed at pilot site(s)

Central Kalimantan

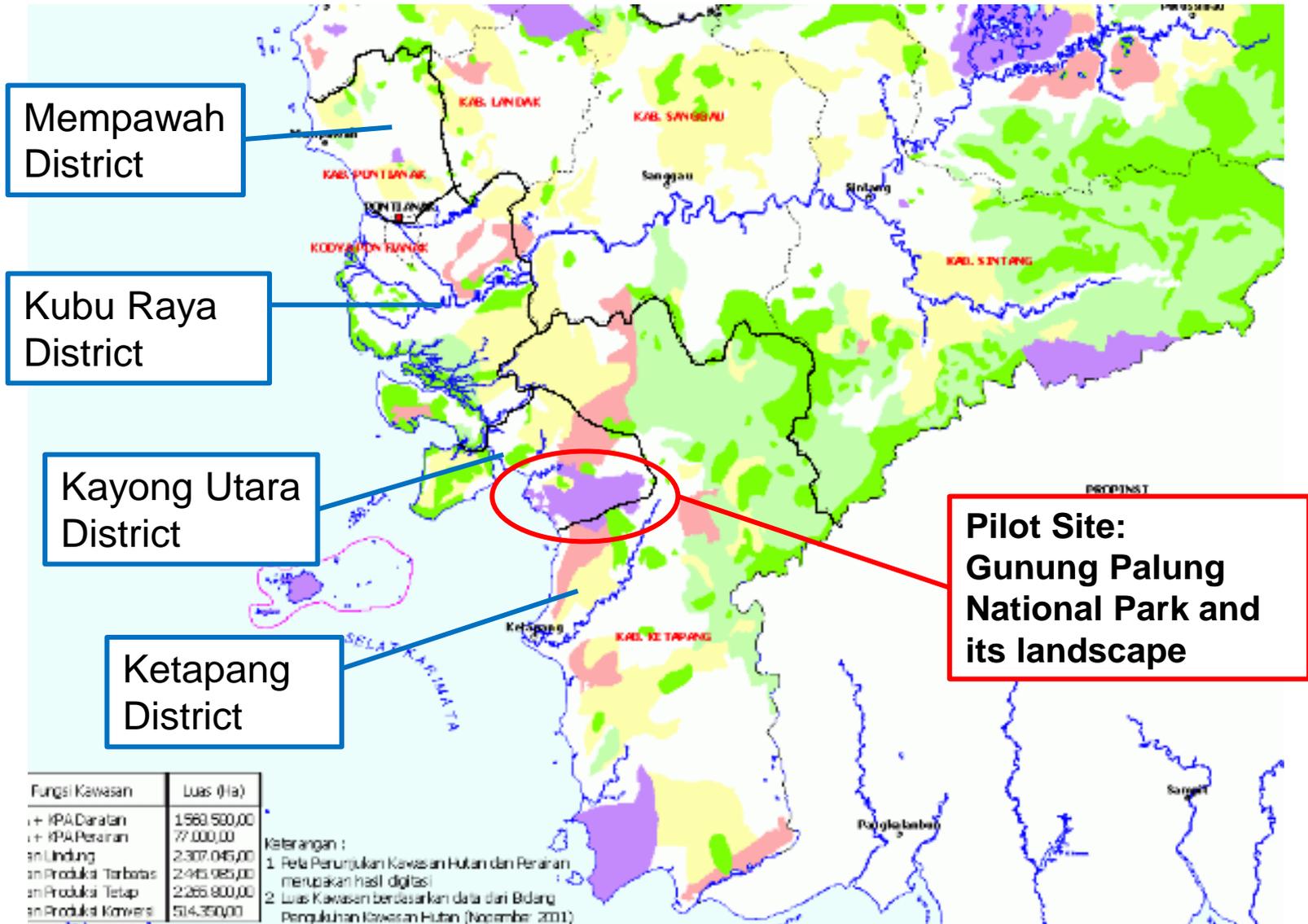
Output 4: Capacity of carbon monitoring is enhanced at the provincial level

Output 5: Project findings are referred to in the process of developing REDD+ implementation mechanisms at the national level.

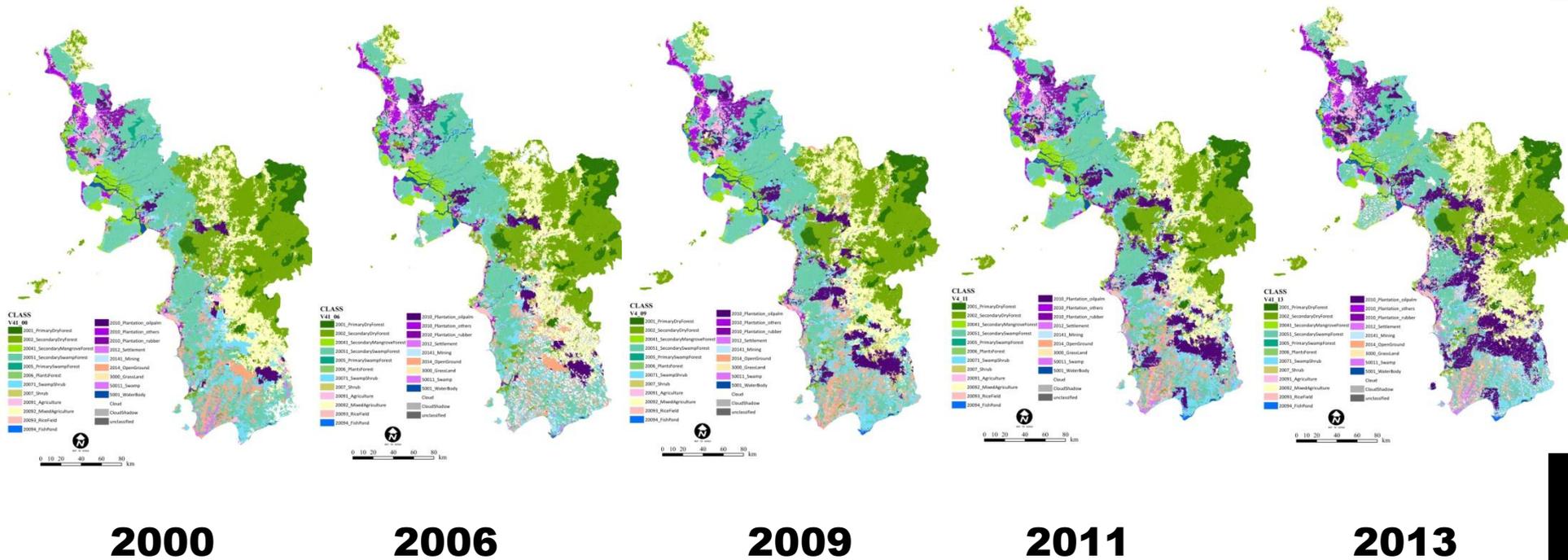
Project Purpose: REDD+ implementation mechanism is developed in West and Central Kalimantan.

Overall Goal: REDD+ implementation mechanism developed by the project is integrated into national REDD+ mechanism.

Target Districts and Pilot Site in West Kalimantan of IJ-REDD+

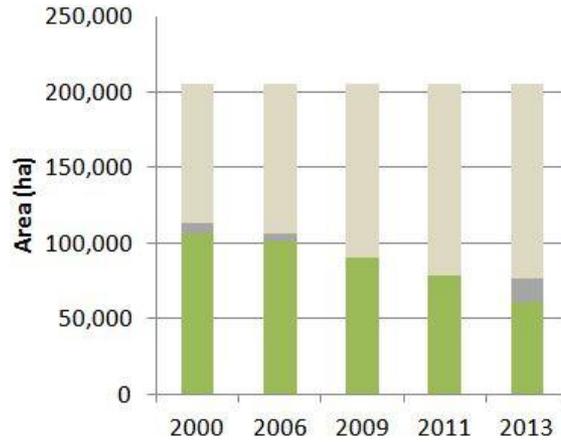


BASE MAP FOR GREEN DEVELOPMENT AND ITS MONITORING - 4 DISTRICTS



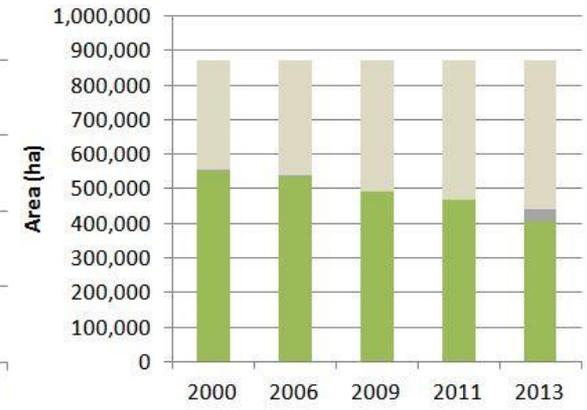
Transition of 21 land-use categories was analyzed based on Landsat image.

TIME SERIES CHANGES ON FOREST / NON- FOREST -REDD+ PDD-



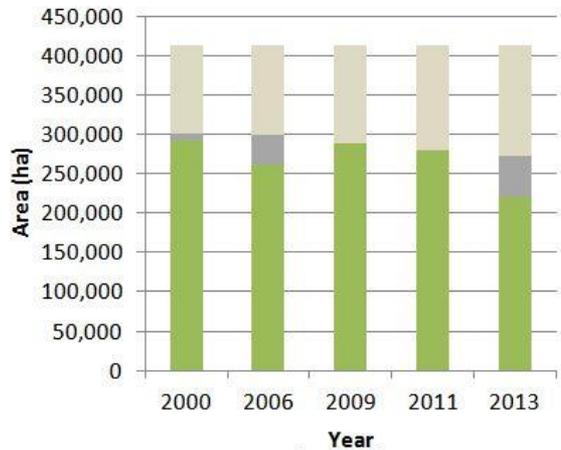
Forest area change in Mempawah

Non Forest Cloud/shade/Unclassified Forest



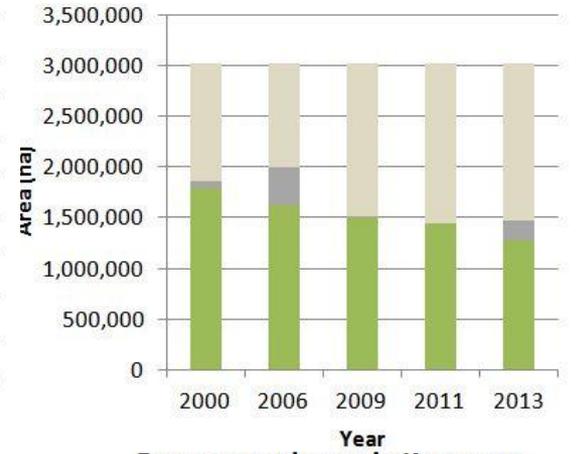
Forest area change in Kubu Raya

Non Forest Cloud/shade/Unclassified Forest



Forest area change in Kayong Utara

Non Forest Cloud/shade/Unclassified Forest



Forest area change in Ketapang

Non Forest Cloud/shade/Unclassified Forest

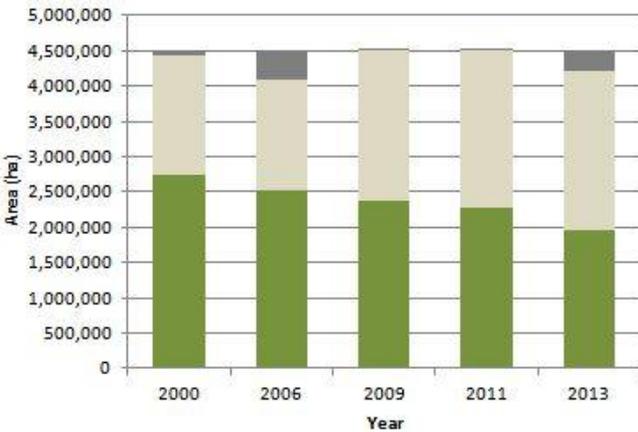
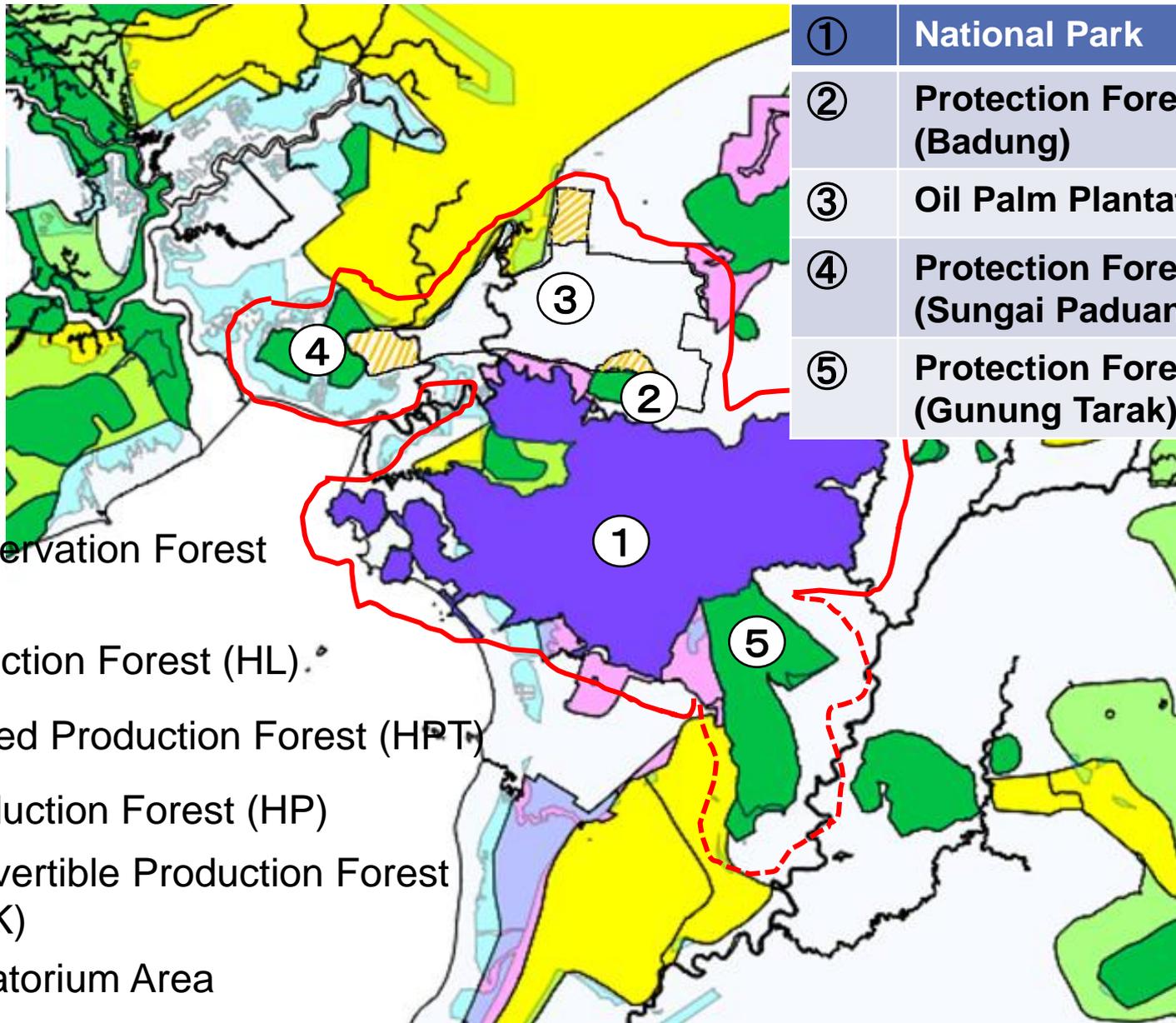


Figure Time series changes of land cover area for Forest, non Forest and cloud/shadow/unclassified

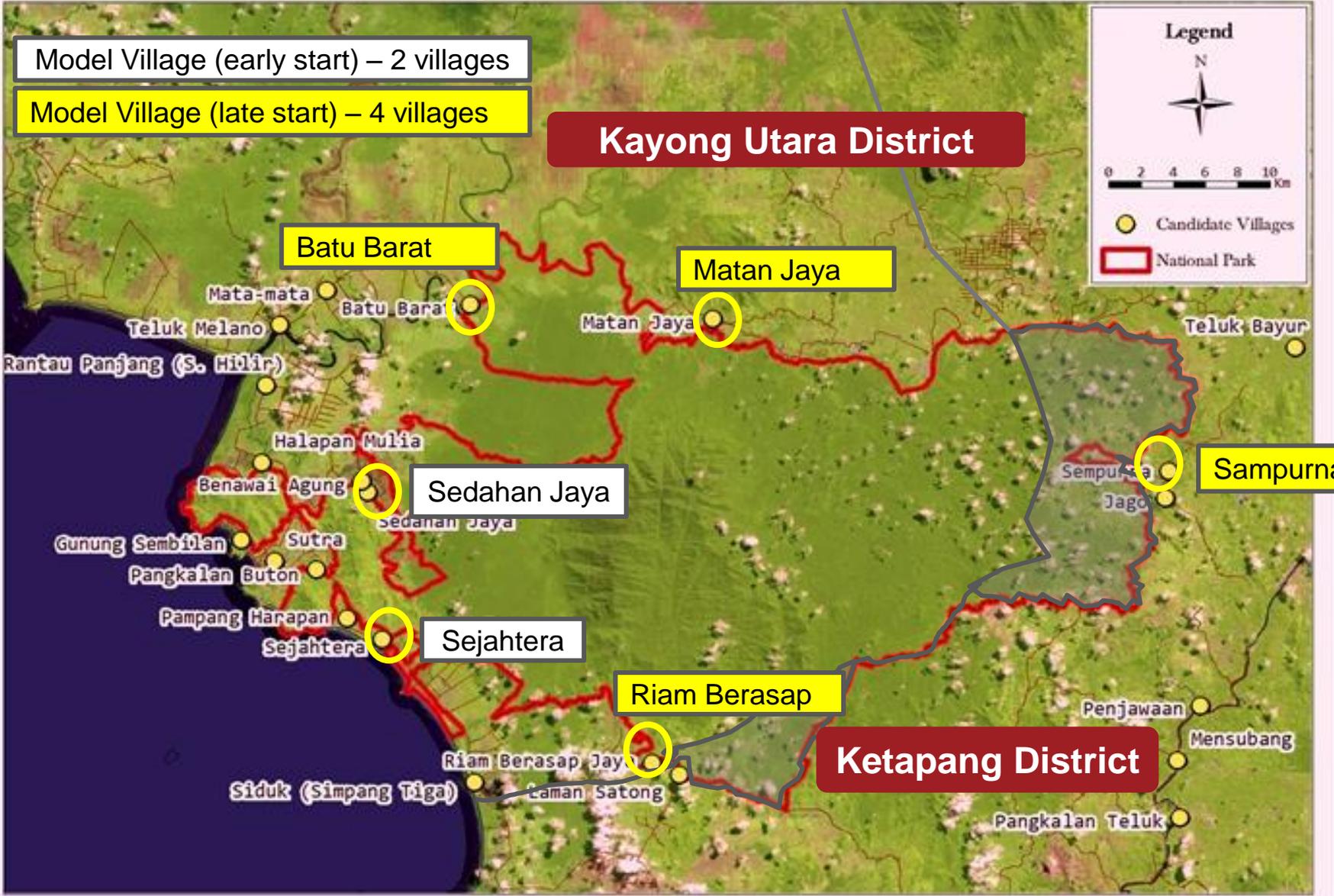
Cloud/Shadow/Unclassified Non Forest Forest

Forest / Non-Forest area of 4 district total

Target Area surrounding Gunung Palung National Park



Villages in Buffer Zone of Gunung Palung National Park and Model Villages of IJ-REDD+



Collaborative Management with Communities

Facilitation Training (Capacity Building for National Park Staff) and Model Village Activities

Visit to West Bali National Park (August, 2013)



- 8 staff from National Park, 1 from Ministry of Forestry attended.
- Learn good practice by West Bali NP



Facilitation Training for Gunung Palung National Park Staff



- 4 Series of Training were conducted by i i network (September, January, February, March)
- About 13 participants from park staff attended.
- Follow-up training at villages were also conducted

Advanced Training in Japan on Collaborative Management (June, 2014)



- 11 staff (National Park, Ministry of Forestry) participated
- Lecture at Min Environment Japan and field practice at Sado island



Model Village Activities (2014~)



- Village Facilitation and Action Plan (ex. Environmental Education, Eco-tourism, Mangrove rehabilitation, NTFP)

Necessary Steps from Collaborative Management to REDD+

Joint Communique as of September 23, 2014

National Park, Districts, NGOs, Private Company

Collaborative Management Forum in National Park

National Park, Local Governments, NGOs, Private company

Multi Stakeholder Forum for Multi Kawasan (Landscape) Approach

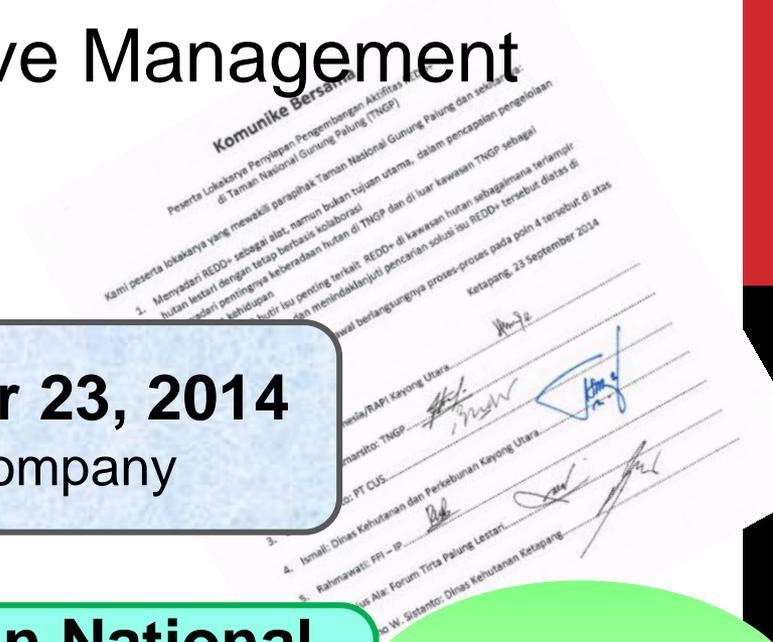
Management Plan, Conflict Resolution, Benefit Sharing

Jurisdictional Approach (Sub-national Approach)

District Level-Provincial Level

Collaborative Management

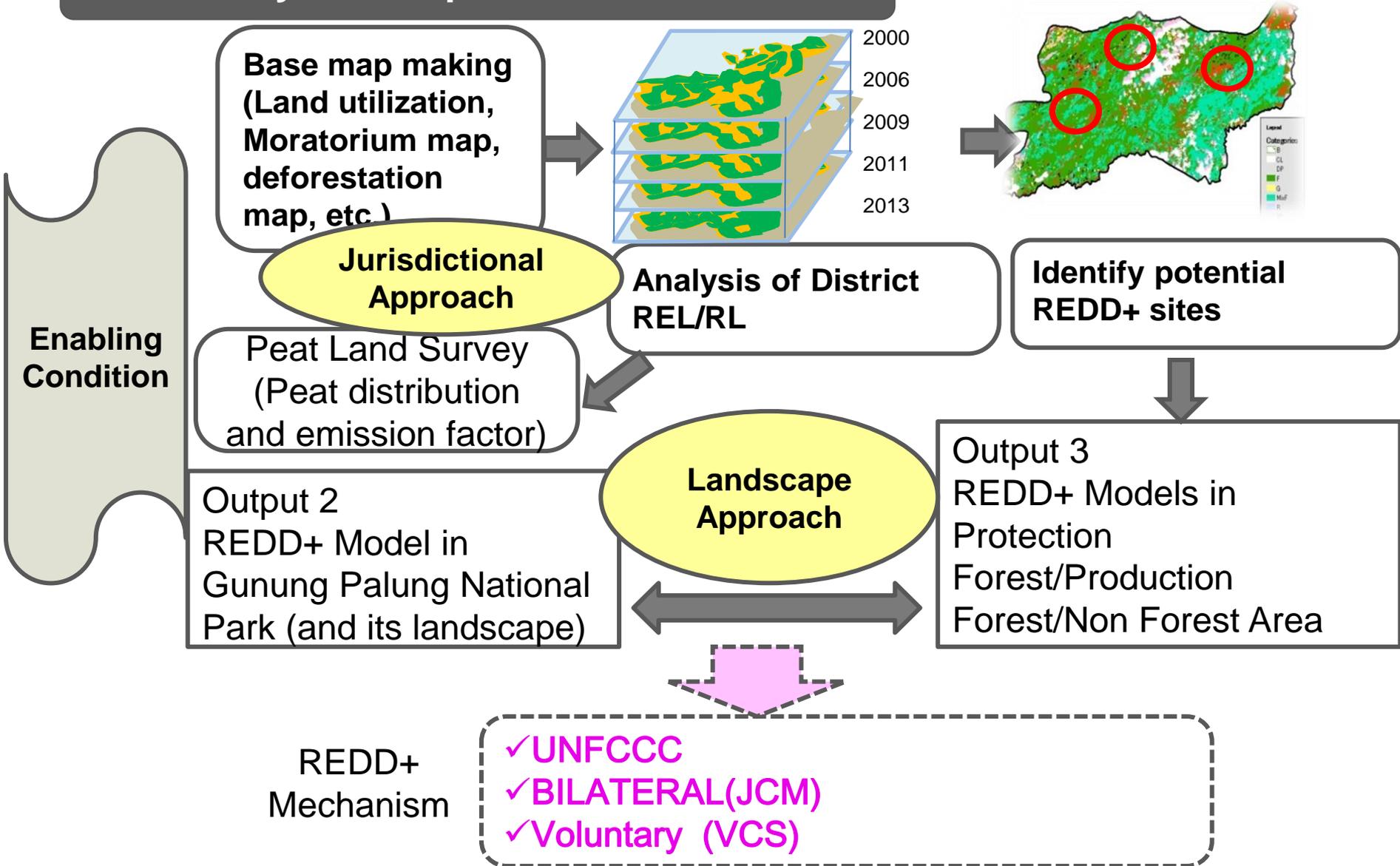
REDD+



Development of REDD+ Mechanism in West Kalimantan

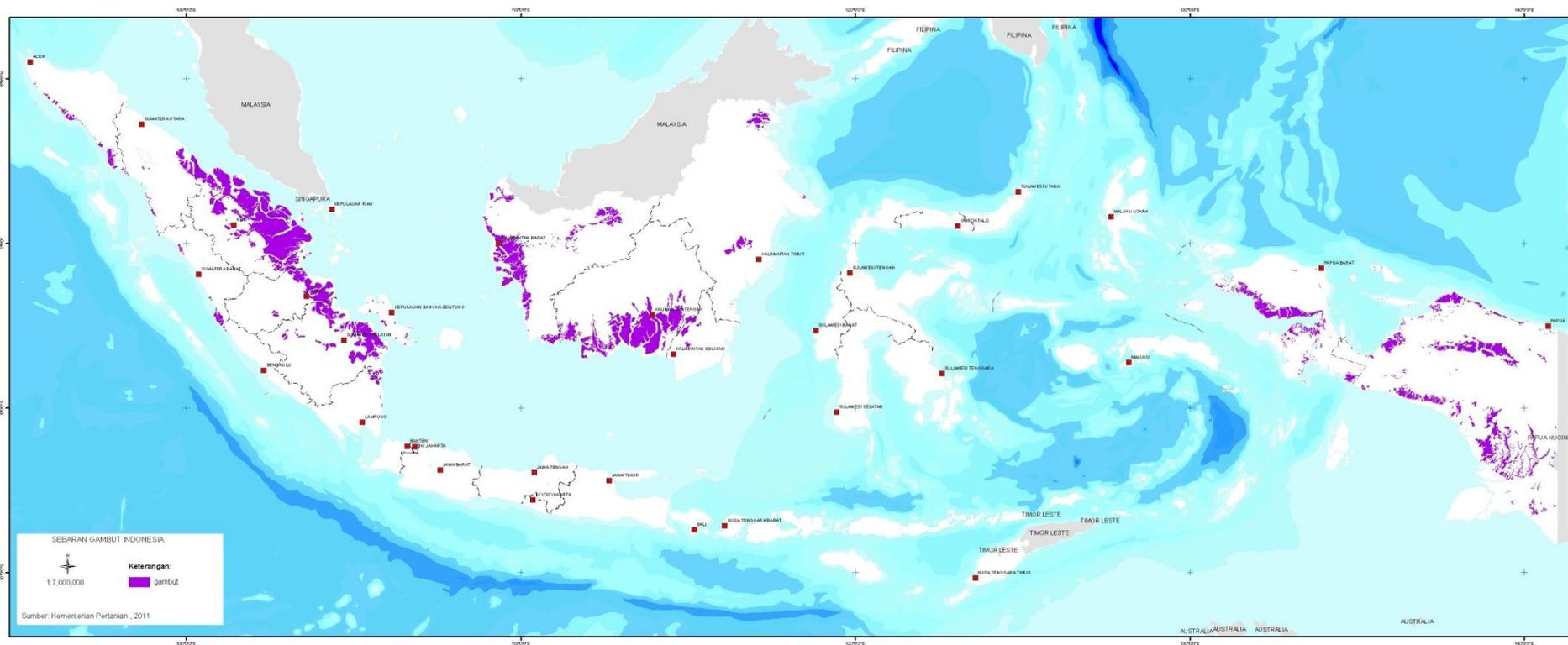
- from Sub-National to Model Sites-

REL analysis and potential REDD+ sites





Distribution of Peat land in Indonesia



AREA (Ha)			
SUMATERA	KALIMANTAN	PAPUA	TOTAL
6,480,163	4,779,036	3,919,671	15,178,870

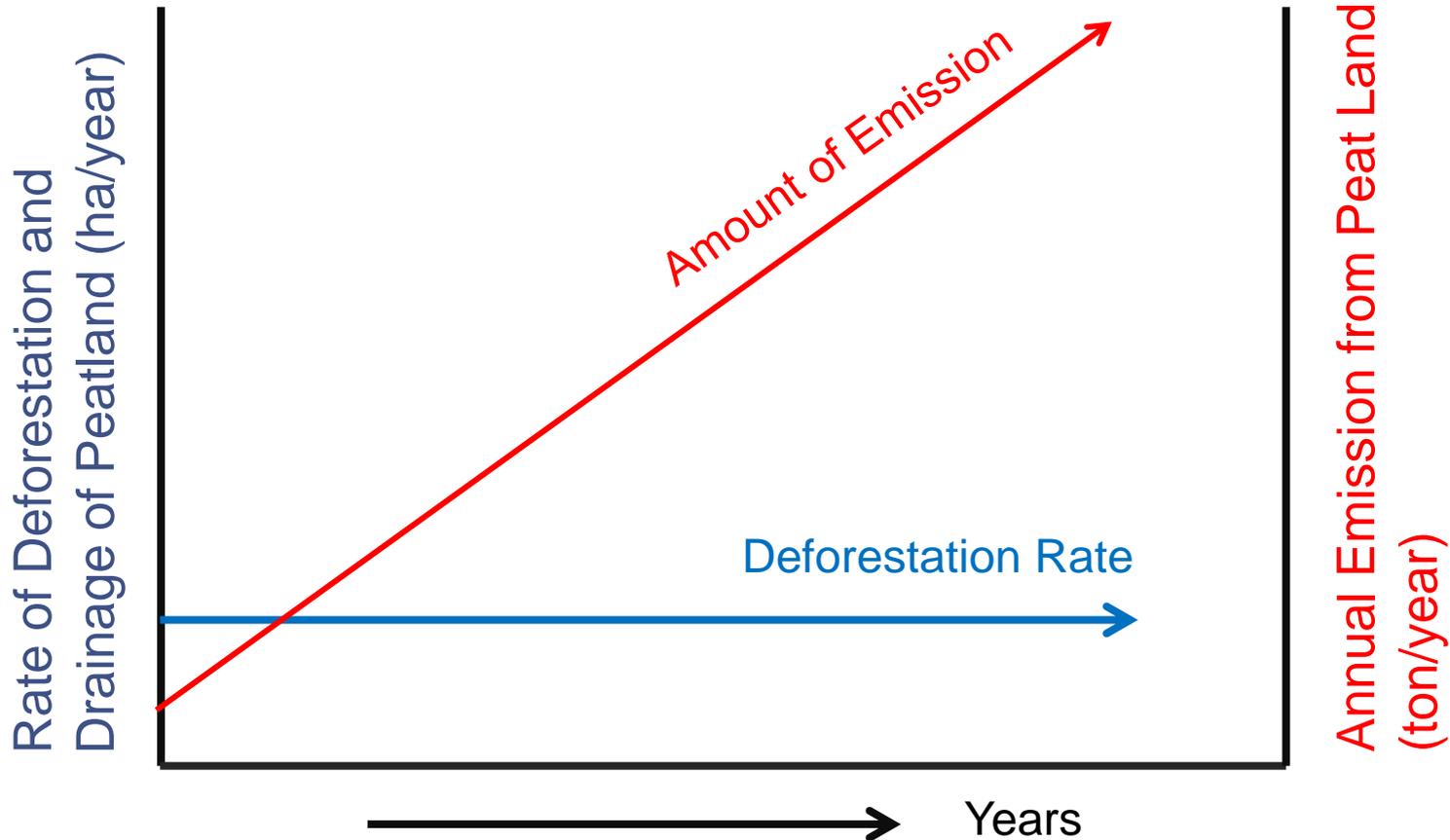
Source: **Ministry of Agriculture** (2011)

Emission from Peatland is caused by **decomposition** (oxidation) of peat and/or **peat fire**, triggered by **deforestation** and **drainage** of peat forest



Drained and deforested peatland (ex Mega Rice Project in Central Kalimantan)

Cumulative Effect of Peatland Emission



Emission from peatland is **cumulative**, because emission from newly deforested (drained) peatland **adds** to those of already drained peat land

IJ-REDD+ activities in Central Kalimantan

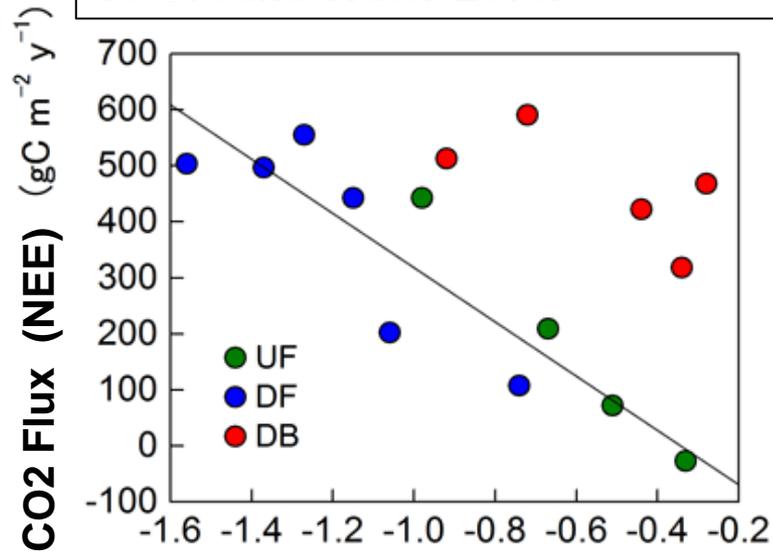
-Peatland MRV-

- Joint Workshop on REL and MRV of Peat Land and Peat Forest in Central Kalimantan (January 28-29, 2014)
 - Central Kalimantan Provincial Government, JICA-JST Project, IJ-REDD+
- About 90 participants attended from central, provincial and district governments, universities, partners, private companies as well as professors from Hokkaido Univ and Tokyo Univ
- Purpose is to share methodology of peat emission MRV developed by JICA-JST Project with policy makers and discuss how to incorporate JICA-JST findings to MRV mechanism of Central Kalimantan



Model for Estimating Peatland Emission based on Ground Water Level by IJ-REDD+ - Hokkaido Univ.

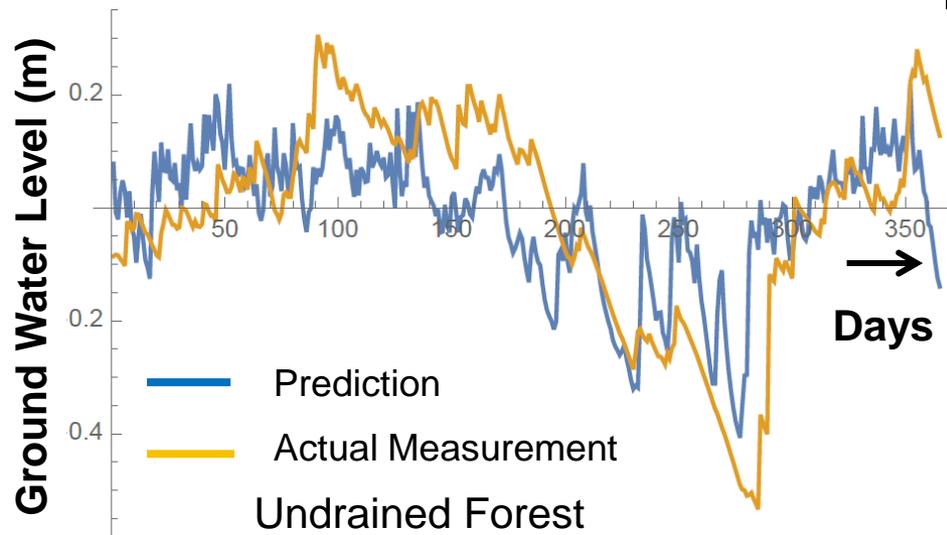
Net Ecosystem Emission (NEE) vs Ground Water Level



UF: Undrained Forest
 DF: Drained Forest
 DB: Drained Burnt Forest

Lowest ground water level in a year measured by monthly average (m)

Estimation Model of Ground Water Level



Tsuji Model, Hokkaido Univ

Hirano Model, Hokkaido Univ

Peat Fire

Peat Decomposition



Manual and Trial Calculation of Peat Emission in Central Kalimantan

GWL Measurement using **SESAME** system



IJ-REDD+ PROJECT

Indonesia-Japan Project for Development
of REDD+ Implementation Mechanism



**Thank you for your
attention**

