Lessons on jurisdictional REDD+ from Berau District, East Kalimantan

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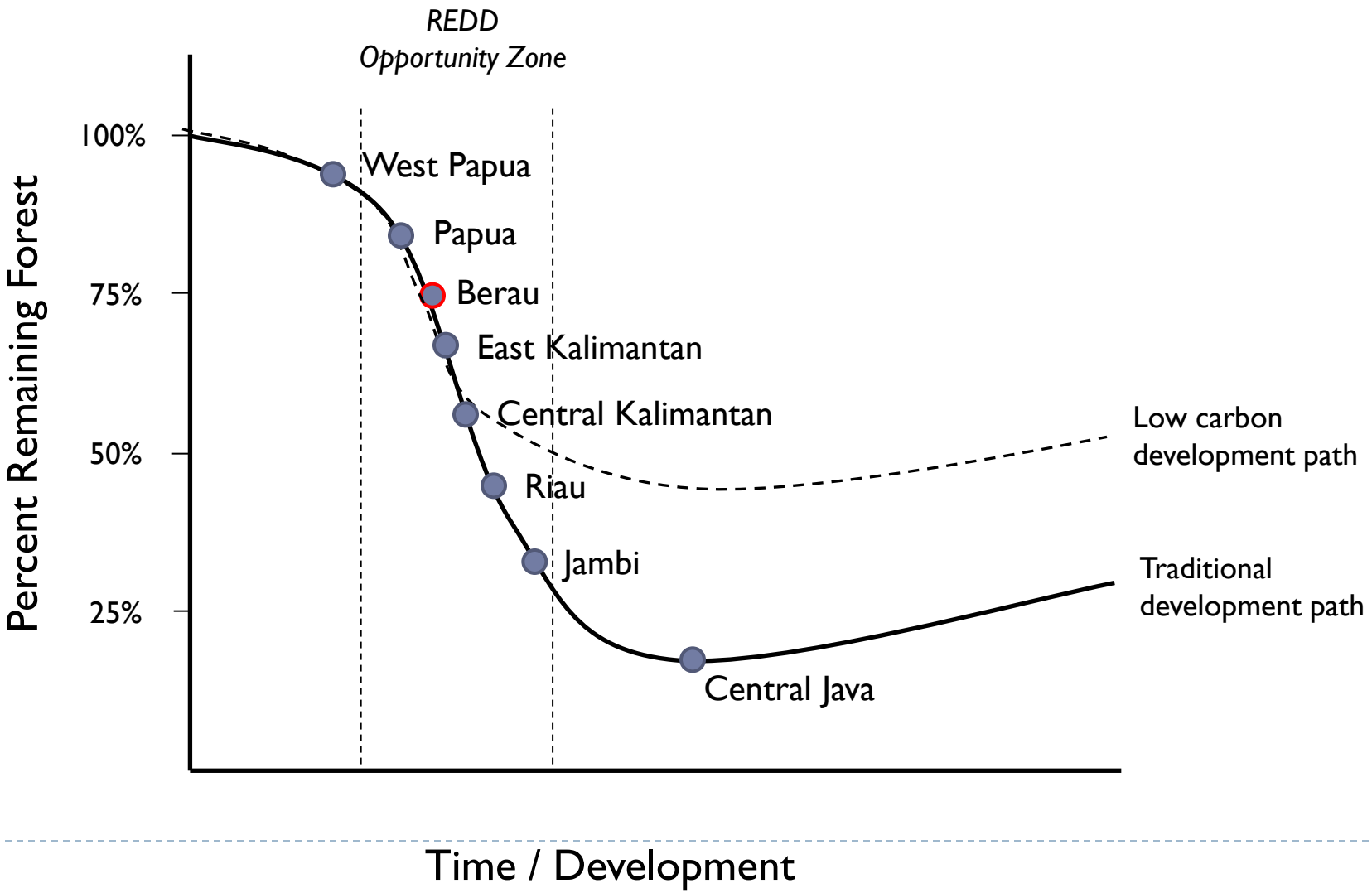
Outline

- Overview of Berau programs
- Strategy for demonstration phase
  - Integrating REDD+ into development plans and licensing
  - Replicating site-level investments
    - Reduced Impact Logging—Carbon
    - Community-based natural resource management
- Linkages to national level
- Challenges in linking a jurisdictional program to a national REDD+ program

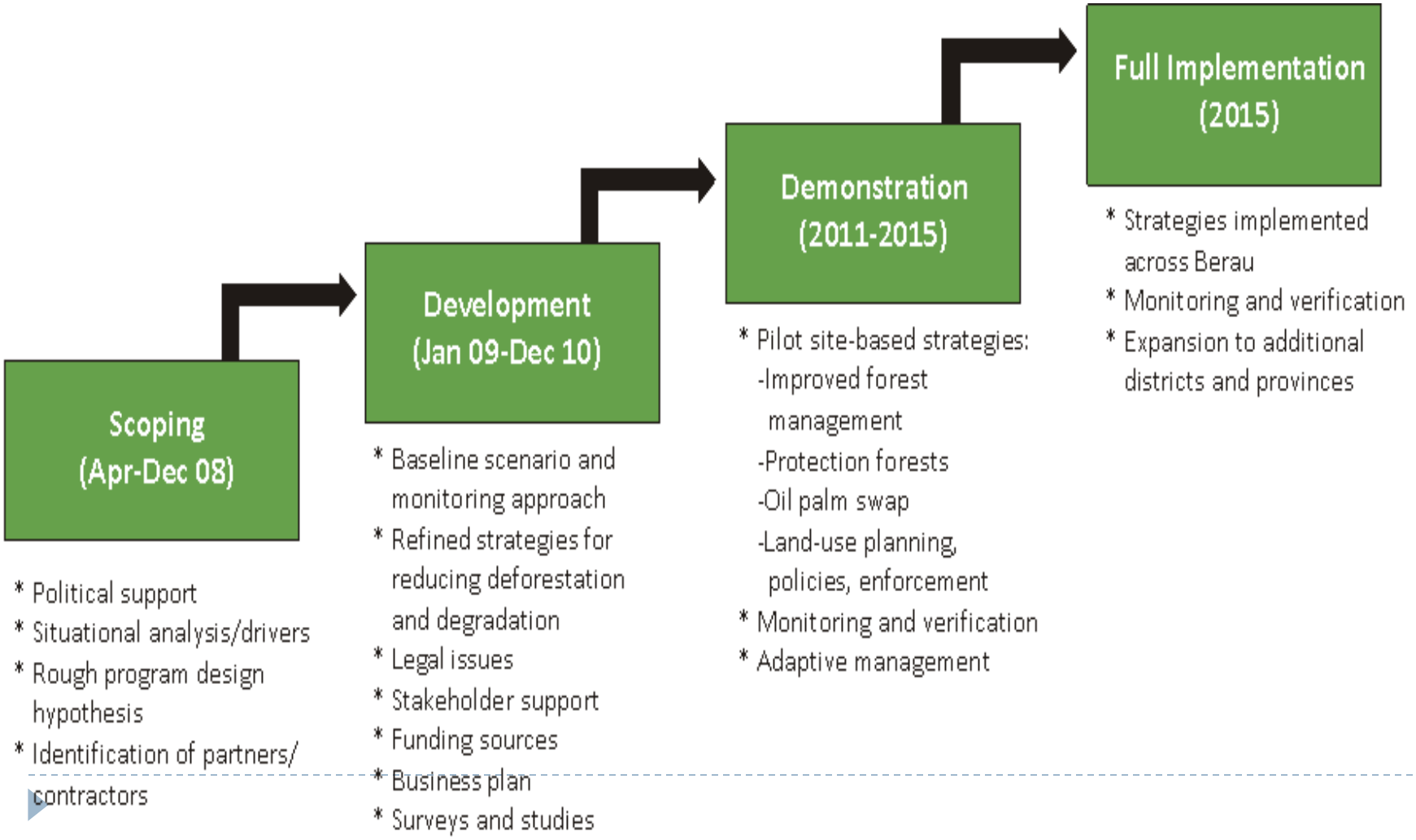
BFCP OVERVIEW

Indonesia has the third largest area of tropical forest in the world

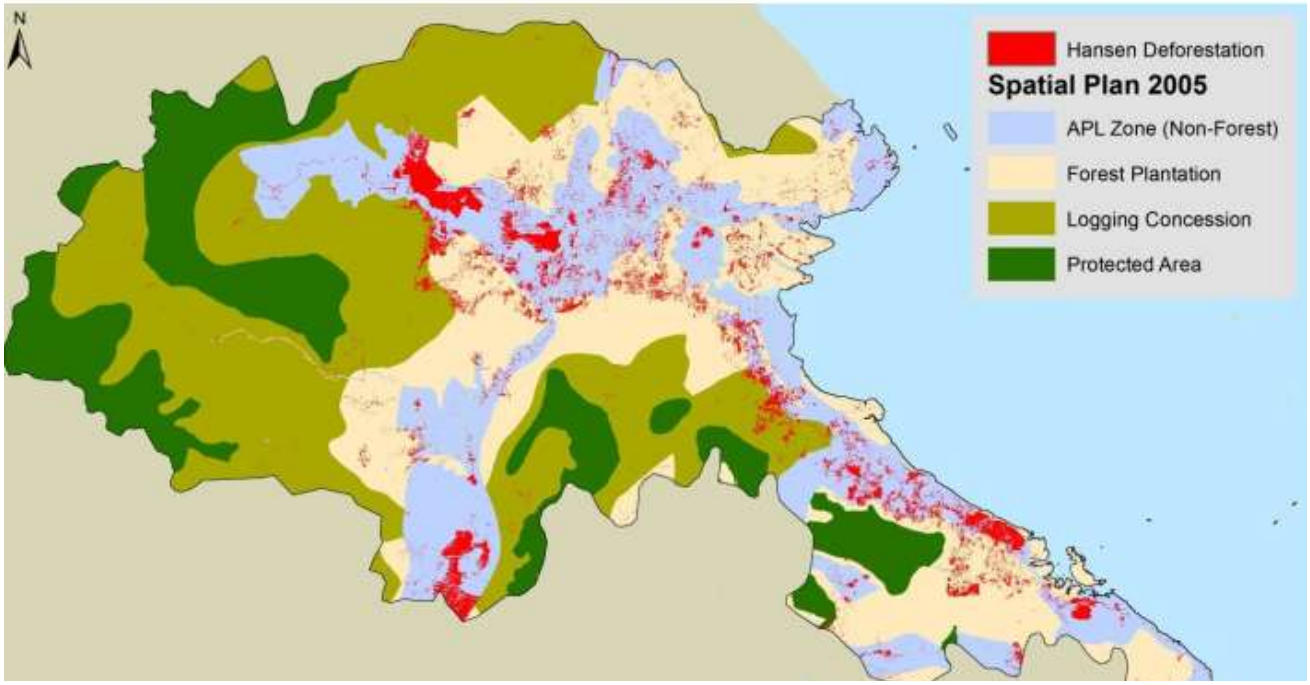
Berau and East Kalimantan are squarely in the "REDD Opportunity Zone" of the Forest Transition Curve



Program phases



Sources of emissions in Berau 2000-2010



Spatial plan zones (2005) are color coded for the district of Berau. Deforestation activity based on Hansen et. al. (2012) from 2000-2010 is given in red.

Pattern of forest loss mostly aligned with legal conversion of forests and legal logging.

Table 1. Emissions and area change by zone (2005 Ministry of Forestry Spatial Plan).

Land Use Zones*	Area Deforested / Logged (Ha/yr, mean 2000-2010)	Area Secondary Forest Regrowth (Ha/Yr, mean 2000-2010)	Gross Emissions (Mt CO2/yr, mean 2000-2010)	Gross Sequestration (Mt CO2/yr, mean 2000-2010)	Net Emissions (Mt CO2/yr, mean 2000-2010)	Total Net Emissions 2000-2010 (Mt CO2)	Percent Emissions
Protected Area (HL) deforestation	42	525	0.03	0.07	-0.03	-0.34	0%
HTI deforestation	2,861	3,381	2.23	0.43	1.80	18.03	17%
HPH deforestation	777	1,021	0.61	0.13	0.48	4.77	5%
APL Zone deforestation	7,144	2,149	5.58	0.27	5.31	53.06	51%
Legal Logging degradation (HPH)	11,302	3,721	3.04	0.12	2.92	29.24	28%
Total	***22,126***	***10,797***	***11.50***	***1.02***	***10.48***	***104.76***	

- 51% of emissions from deforestation in APL area
- 28% of emissions from legal logging in HPH
- 17% of emissions from deforestation in HTI licenses

STRATEGY FOR DEMONSTRATION PHASE

Berau Forest Carbon Program (BFCP) Goals for 2015:

- 800,000 hectares of forestland under effective management
- 10 million tons of CO2 emission
- Conserving critical watersheds
- Protecting the habitat of 1,500 orangutans
- Creating improved economic outcomes for local communities
- Generating experience for national/regional/global application

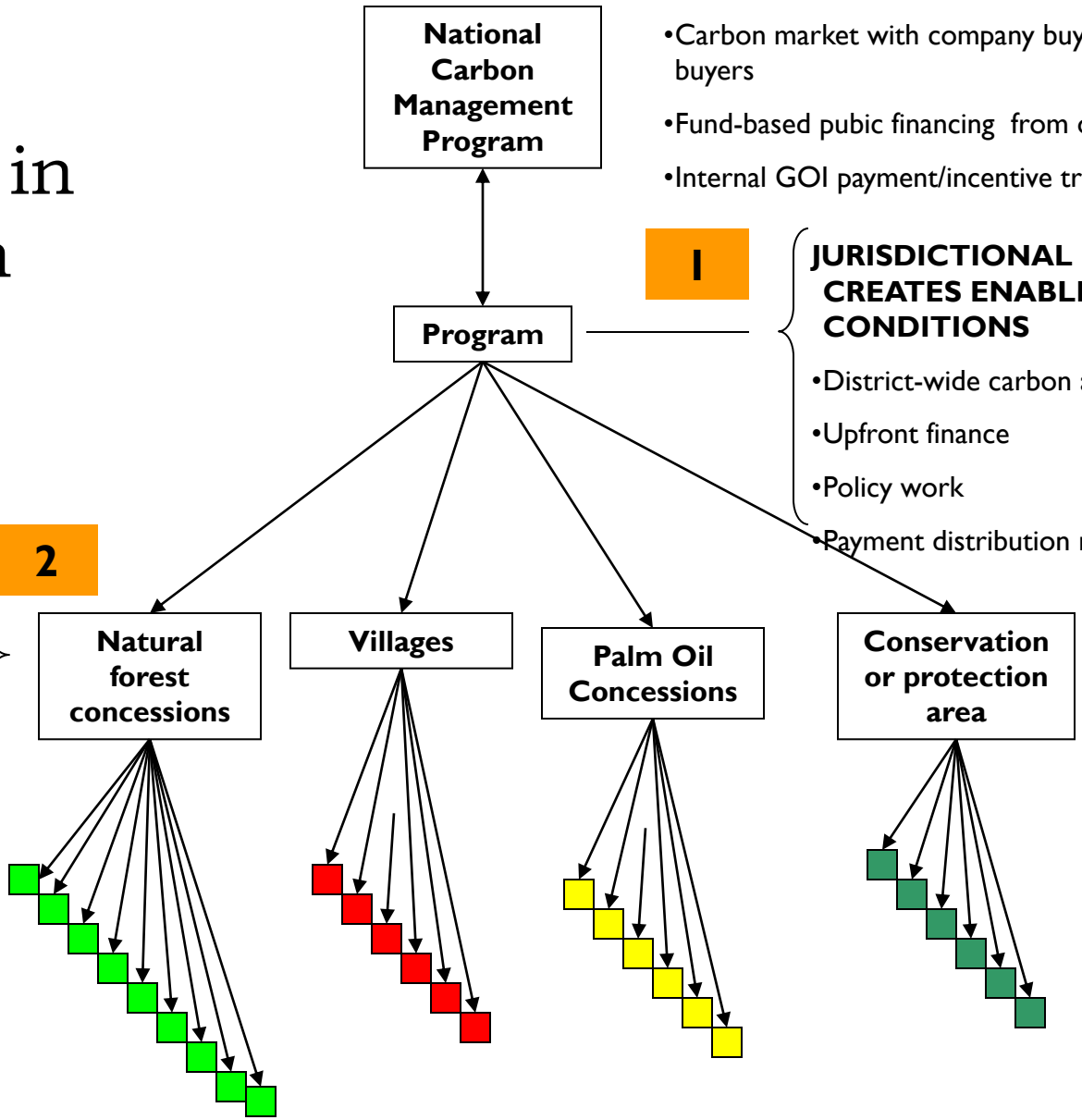
Scenario 3 or "bundling" approach to internal allocation framework in jurisdiction

4

BUNDLING MAINTAINS OPTIONS FOR CARBON FINANCING

Bundling simplifies program management in light of uncertainties about carbon finance arrangements internationally. Approach could be adapted to:

- Carbon market with company buyers or government buyers
- Fund-based pubic financing from outside Indonesia
- Internal GOI payment/incentive transfer mechanism



1

JURISDICTIONAL PROGRAM CREATES ENABLING CONDITIONS

- District-wide carbon accounting
- Upfront finance
- Policy work
- Payment distribution mechanism

2

MODEL INCENTIVE AGREEMENTS FOR EACH PROJECT TYPE

Customized for each sector. Common elements

- Manager commitment to achieve performance targets (e.g. FSC certification)
- Technical assistance delivered efficiently
- Financial incentives, including operations financing and performance payments
- Streamlined regulatory context

3

CUSTOMIZED AGREEMENTS

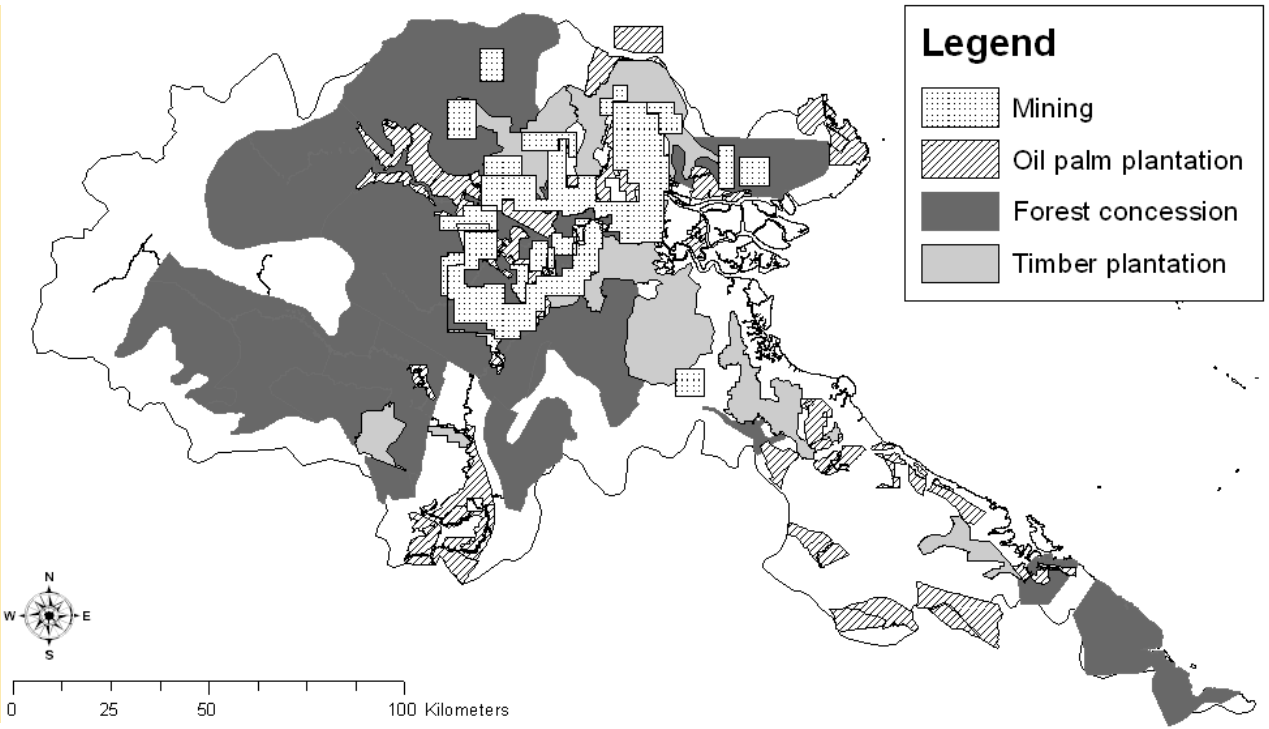
- Customized agreements are negotiated with each land manager
- Streamlined performance monitoring

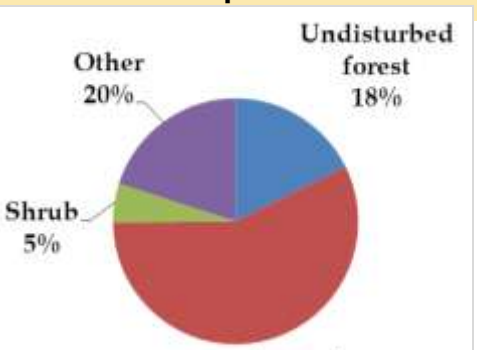
Integrating REDD+ into development planning and licensing is fundamental to a jurisdictional approach

Needs to be done for cross-sectoral mechanisms (spatial plan, mid-term development plan).

Needs to be done for sectoral planning and licensing.

Requires giving clear value proposition to jurisdiction for lost development benefits.

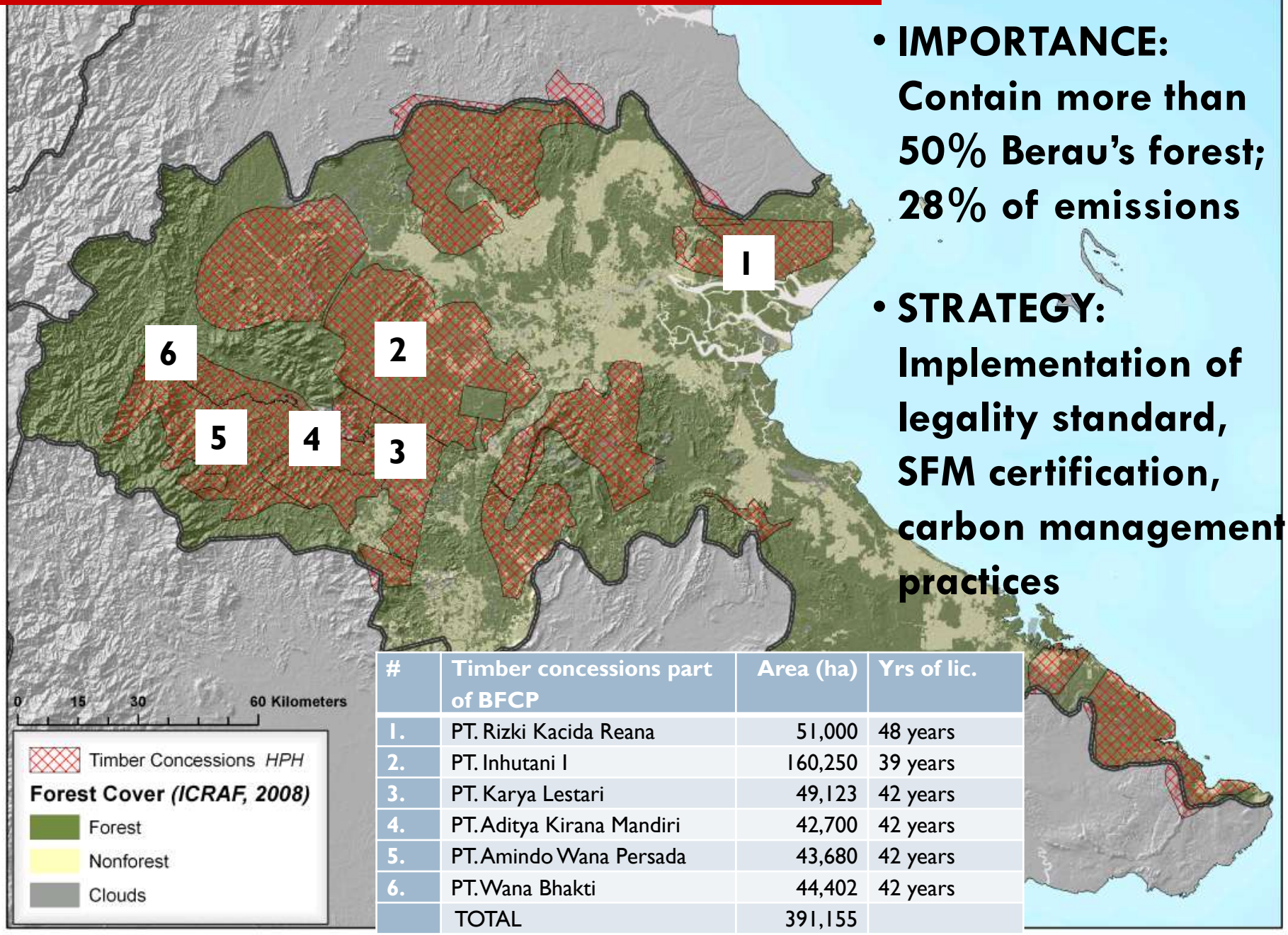




Current land cover in oil palm areas

- The planned land-based activities covers over 70% of Berau area which consist of: forest concession (42% of Berau area), timber plantation (10%), oil palm concession (9%) and mining concession (8%)
- Total area licensed for oil palm exceeds 200,000 ha, more than 75% of the licensed area is still forested.

SELECTIVE LOGGING CONCESSIONS



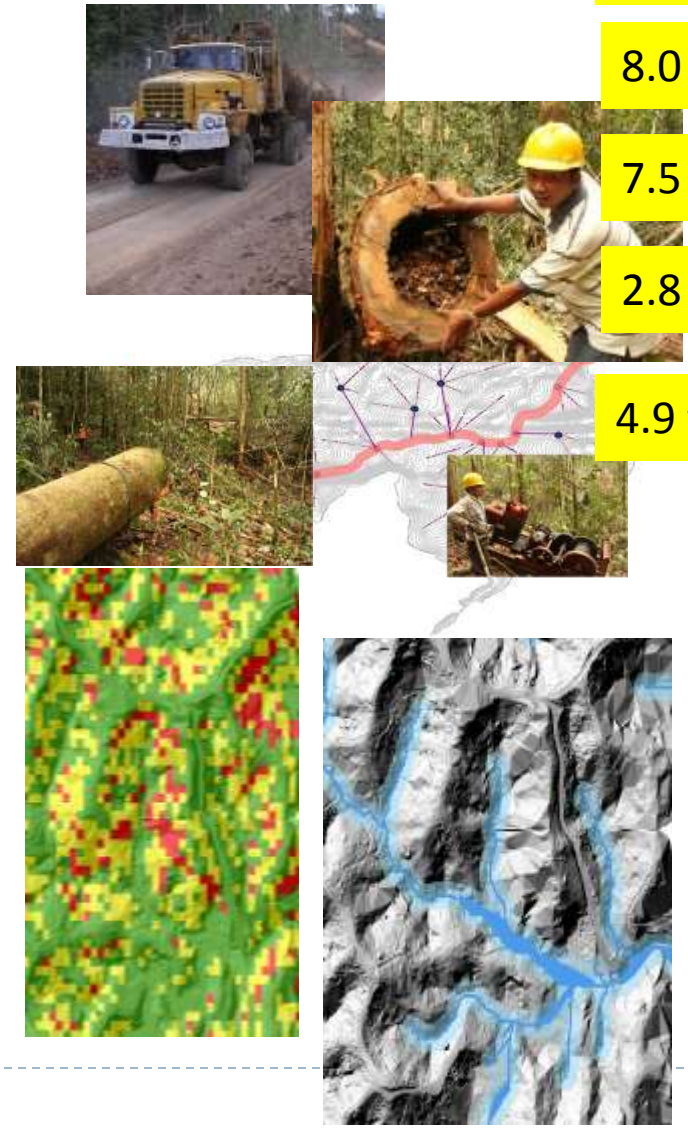
- **IMPORTANCE: Contain more than 50% Berau's forest; 28% of emissions**
- **STRATEGY: Implementation of legality standard, SFM certification, carbon management practices**

#	Timber concessions part of BFCP	Area (ha)	Yrs of lic.
1.	PT. Rizki Kacida Reana	51,000	48 years
2.	PT. Inhutani I	160,250	39 years
3.	PT. Karya Lestari	49,123	42 years
4.	PT. Aditya Kirana Mandiri	42,700	42 years
5.	PT. Amindo Wana Persada	43,680	42 years
6.	PT. Wana Bhakti	44,402	42 years
	TOTAL	391,155	

Developing a replicable site-level investment by linking Reduced Impact Logging to carbon emissions

SUMMARY OF APPROACH

1) Define specific "RIL-C" practices that measurably reduce emissions
2) Sign incentive agreements with companies that commit them to perform those practices
3) Deliver technical assistance to support the implementation
4) Third party auditing of the field implementation of RIL-C practices plus satellite monitoring
5) Deliver performance payments



2.4 tC/ha

8.0 tC/ha

7.5 tC/ha

2.8 tC/ha

4.9 tC/ha

Logging Efficiencies

- Reduce average haul road width to ≤ 25m
- Replace bull-dozers with winch skidding.
- Do not fell hollow or defective trees.
- Improved skid trail planning
- Improved felling techniques

"Set Asides"

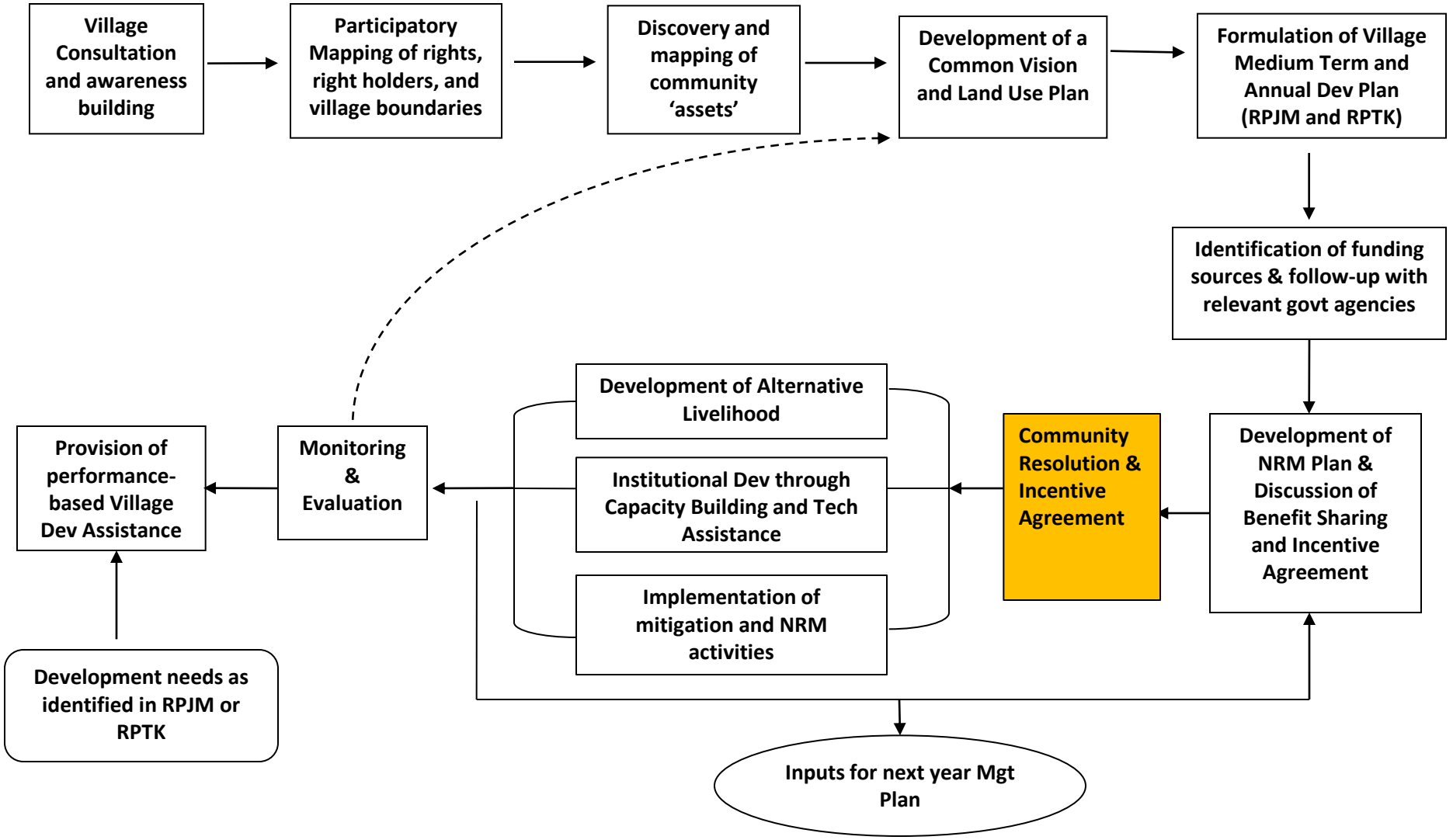
- Restrict logging in High Conservation Value Forests (~10% of concession area)
- Do not log in 20-meter riparian buffer zones.
- Do not log on slopes > 40 %

BFCP STRATEGIES FOR COMMUNITY ENGAGEMENT

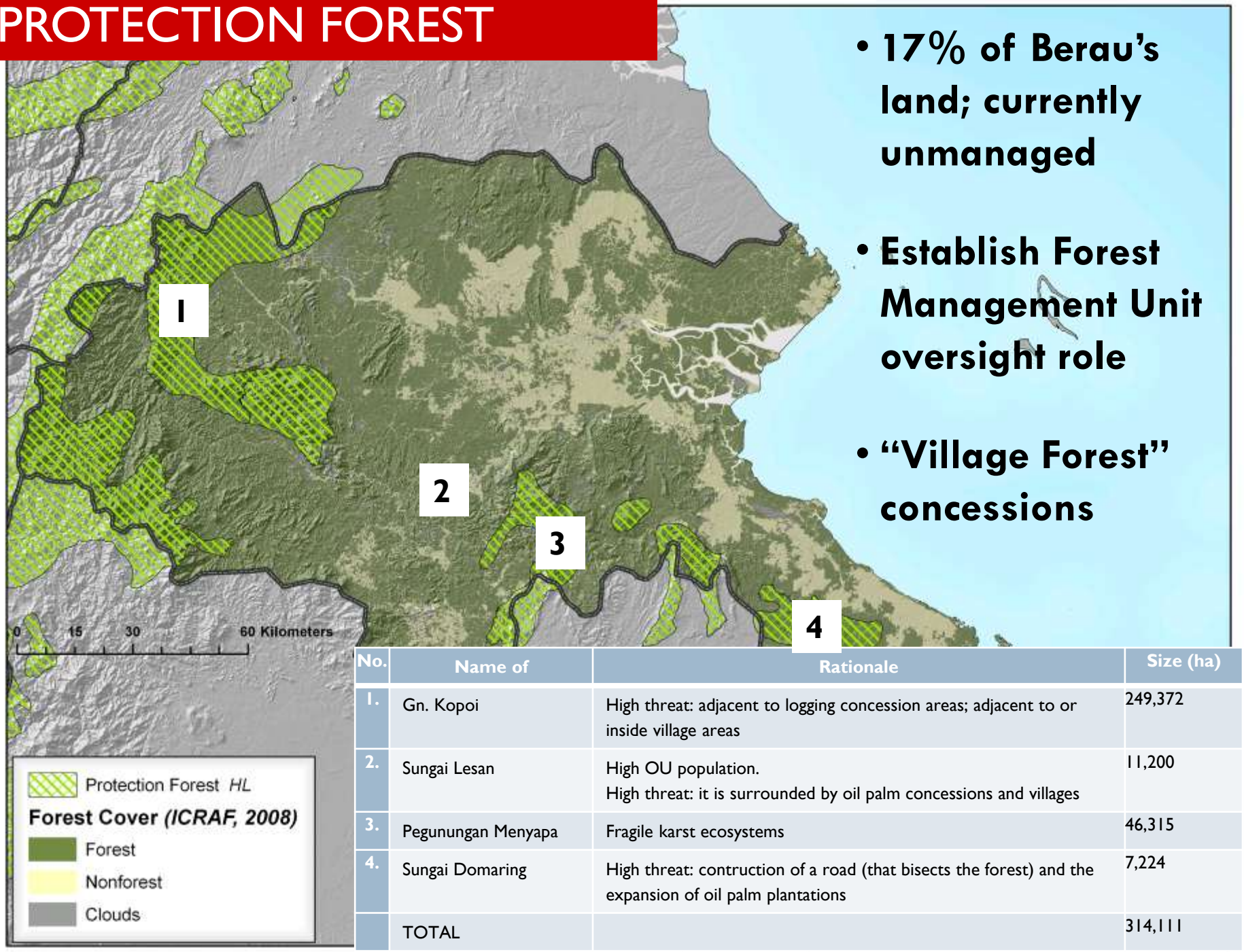
- **Program-wide:**
  - Community and CSO consultations in the development of BFCP Community Strategy (led by the World Education).
  - Community participation in BFCP decision-making processes (reps. in the BFCP Governance Structure or Advisory Board).
  - BFCP create and manage a fair and transparent payment distribution mechanism.
- **Site-level**
  - Focus: 20+ villages in Kelay & Segah watersheds, including 2 coastal villages.
  - Develops 'models' in 4 villages.
  - Replicate models in 16 more villages

METHODOLOGICAL & OPERATIONAL FRAMEWORK

(village engagement)



PROTECTION FOREST



- 17% of Berau's land; currently unmanaged
- Establish Forest Management Unit oversight role
- "Village Forest" concessions

No.	Name of	Rationale	Size (ha)
1.	Gn. Kopoi	High threat: adjacent to logging concession areas; adjacent to or inside village areas	249,372
2.	Sungai Lesan	High OU population. High threat: it is surrounded by oil palm concessions and villages	11,200
3.	Pegunungan Menyapa	Fragile karst ecosystems	46,315
4.	Sungai Domaring	High threat: contruction of a road (that bisects the forest) and the expansion of oil palm plantations	7,224
	TOTAL		314,111

Progress to date

- **Program governance**: Steering Committee established
- **Analytical base**: Completed in-depth analysis of production forests, profitablity of different land uses, HCVF across disctricts, drivers of DD, laws and regulations across scales, spatial data descrepancies, etc.
- **Program design:** BFCP strategic plan developed based on extensive multi-stakeholder, multi-level consultation. Shaped provincial-level REDD initiative in East Kalimantan.
- **Positioning**: Recognition of BFCP as one of main national REDD Demonstration Activities; Shaped East Kalimantan Low Carbon Growth Strategy; strong alignment of BFCP with nat'l and prov. REDD strategies
- **On the ground**:
  - Intensified work with logging concessions and community managed areas covering nearly 500,000 hectares;
  - Initiation of 775,000 hectare Forest Management Unit (KPH) pilot with Ministry of Forestry
  - 4 "Model villages" initiated with livelihood programs and mitigation commitments
- **Financing**: German ForClime; USG Debt for Nature; Norad; TNC
- **Learning**: national-level BFCP lessons learned workshop series; substantial input to national REDD+ strategy and process; substantial inputs to East Kalimantan LCGS;

LINKAGES TO NATIONAL LEVEL

Strategies for linking to national used in BFCP development

- Approaches to supporting national program development
  - Testing national-level strategies (KPH)
  - Developing new strategies that are relevant elsewhere (RIL-C)
  - Documenting and sharing lessons
- Types of learning from sub-national programs
  - Facilitating district-level input in provincial and national policy dialogues
  - Not "full success" but faster iteration
- Transforming insights from projects into policies / programs
  - Upfront involvement of national and provincial government
  - Answer questions that national program will need to answer
  - Planning for scaling and/or replication

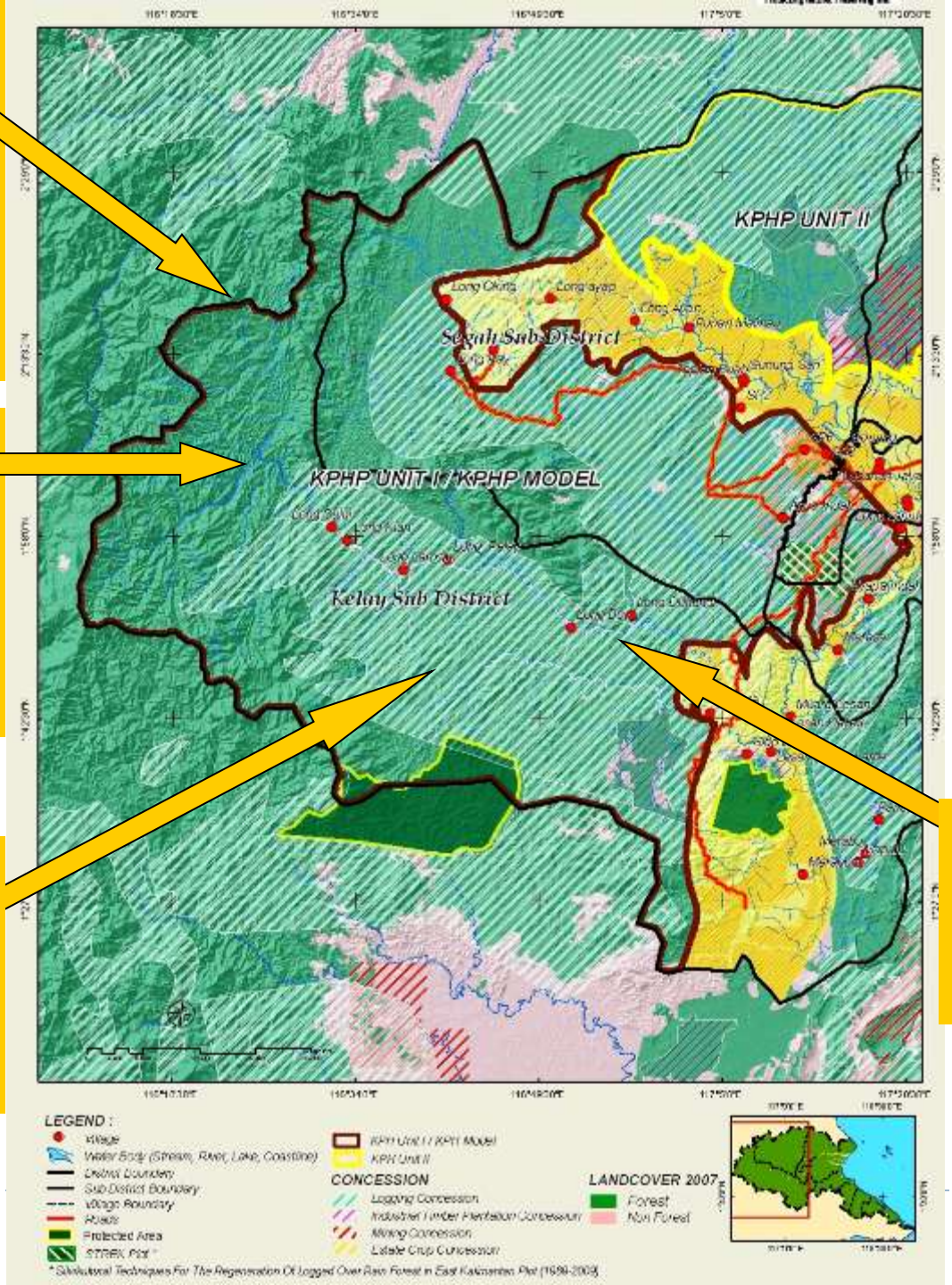
Programmatic linkages to national level

- **Overall program:**
  - Follow-up to first national REDD+ strategy recommendation on pilots
  - REDD+ Demonstration Activity under Ministry of Forestry;
  - Priority area under Provincial Green Growth Strategy;
  - Piloting of national SES safeguards system
  - Policy dialogue on incentives for jurisdictional programs
- **Communities:**
  - Supporting recognition of Village Forest licenses
  - Supporting land tenure recognition process
- **Forest governance**:
  - Forest Management Unit pilot
- **Production forestry**:
  - Accelerating timber legality verification and SFM certification SVLK
- **Oil palm:**
  - Accelerating mandatory sustainable palm oil certification (ISPO)
- **National greenhouse gas mitigation action plan:**
  - Pilot district for provincial program

Forest Management Unit pilot of institution for managing large areas within the forest estate.

Protection forest: developing models of effective management

Logging concessions: legality verification; SFM certification



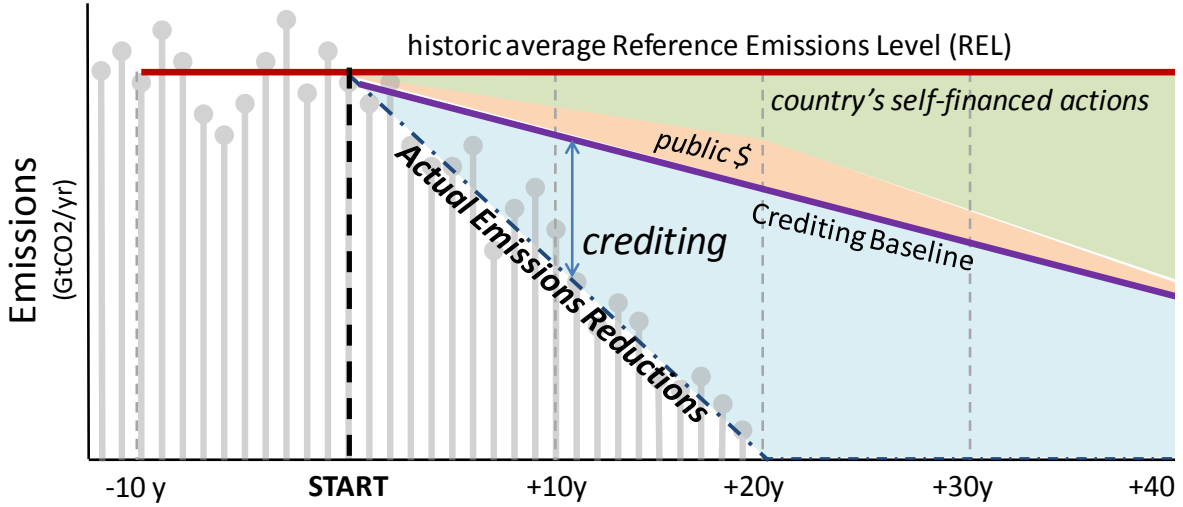
Berau program is supporting various national-level forest-sector reforms, many of which are linked together by a 775,000 hectare **Forest Management Unit pilot**

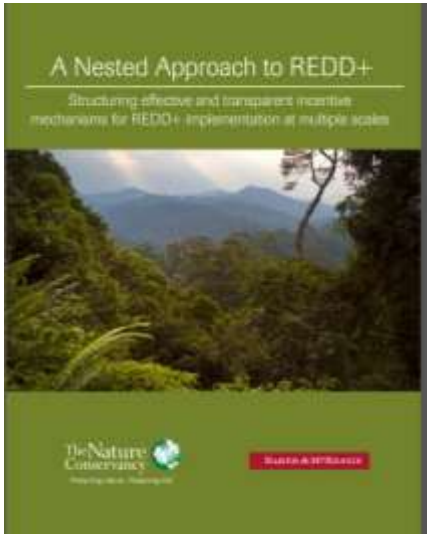
Communities: Hutan Desa; land tenure clarification

CHALLENGES OF LINKING A JURISDICTIONAL PROGRAM TO NATIONAL

Challenges of linking to national-level: basic questions on REDD+ have not yet been answered

- Will Indonesia try to have a national-level crediting framework?
- How will sub-national emission reductions be trued up to the national?
- How will NAMAs, donor funded initiatives, and crediting be reconciled?
- Which category would BFCP emission reductions be included in?
- Who owns the carbon in the forests in Indonesia?





Joint paper by TNC and Baker & McKenzie addresses many of the key issues in nesting REDD+ programs

Numerous REDD+/green development initiatives have contributed in Berau, but maintaining alignment of approaches is difficult

- Model KPH Berau Barat
- German Forests and Climate (ForClime) Program
  - GIZ Technical Cooperation
  - KFW Financial Cooperation
- Green East Kalimantan Program
- National and Provincial Greenhouse Gas Mitigation Action Plans
- US Tropical Forest Conservation Act debt swap
- Funding through TNC
  - Norwegian Agency for Development
  - Department of Agriculture Fisheries and Forests (production forestry)
  - German Environment Ministry? (oil palm)
- Other
  - The Asia Foundation
  - RECOFTC

bappenas
Badan Perencana dan Pembangunan Nasional

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

kfw ENTWICKLUNGSBANK

Norad

Australian Government
Department of Agriculture, Fisheries and Forestry

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THE CENTER FOR PEOPLE AND FORESTS

The Asia Foundation

Underlying problems:

- Lack of coherent national program
- Bureaucratic competition at national level; between levels of government
- Ideological competition

Long-term REDD+ financing mechanisms not in place: national governments should provide performance-based incentives to sub-national programs

A performance agreement could initially be based on non-carbon outcomes such as described below . The program would track deforestation and degradation as well over this period, but not make payments based on this. Could transition to payments based on reduced deforestation, degradation and associated carbon emissions as methodologies are established.

Result indicator	District	Site
# of forest management units established (or # hectates under effective management?)		
% forest cover in newly allocated oil palm, mining, timber plantation concessions (goal = low forest cover)		
# hectares of forest concessions with legality certification or FSC (% of forest concession area with certification?)		
# hectares of oil palm plantations with ISPO/RSPO (% hect?)		
# hectares of forest area under formal management of communities		
# hectares of protection forest with high carbon stocks and high or medium threat under effective management		
# hectares of forested "non-forest" land suitable for agriculture maintained in natural forest for carbon storage		

National programs should provide coherent guidance to jurisdictional programs

- "Need to have"
  - Approach to handling carbon rights (clarifying at least for demonstration phase)
    - Is there still a goal to have an integrated national accounting system? If so, need to be careful on allocating carbon rights
  - Clear approach to District REL/MRV
    - Methodological requirements or options
    - Approval process
- "Nice to have"
  - Overall readiness performance assessment
  - Outline investment program packages for districts
  - SES guidance for district programs
  - Guidance for negotiation and development of commitments for jurisdictional programs

Need a formal readiness phase in Berau to prepare for district-level performance agreement

- Work with an appropriate national level entity to bring together key parties within jurisdictional program
  - At a minimum District Government, Provincial Government, key implementing institutions, major donors
- Key objectives
  - Align relevant plans/policies for jurisdictional implementation
    - FCPF Readiness documents/National REDD+ strategy/RAD-GRK/SRAP/BFCP plan/ForClime plan
  - Revised strategy and institutional arrangements
    - Stronger approach to district-level coordination
  - Revised overall program objectives
  - Agreement on jurisdictional carbon accounting approach
    - Program scenario/carbon crediting; REL approach
  - Frame commitments of various actors for enablers

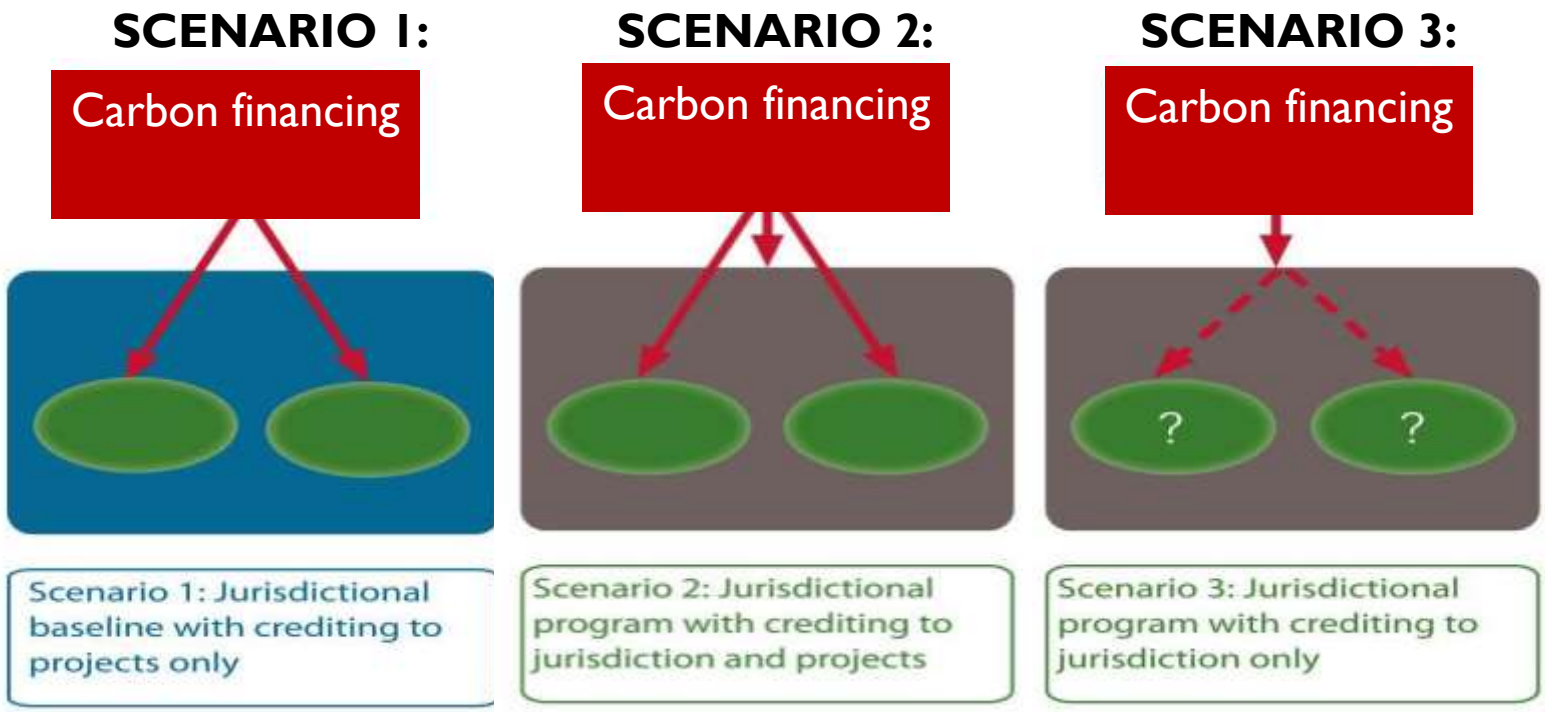
Moving forward

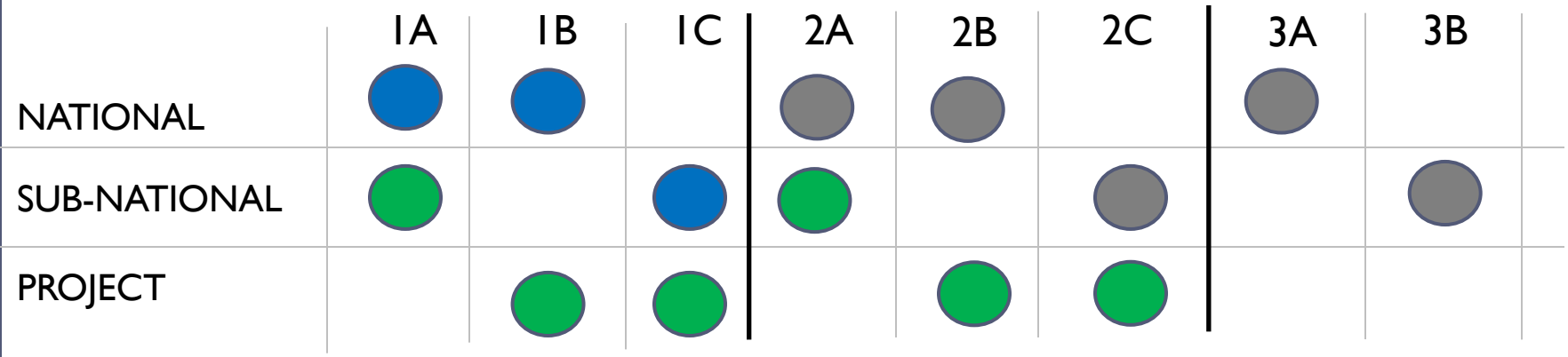
THANK YOU

VCS's 3 JNRI "scenarios" can describe approaches at different scales: BFCP targeting 2A, 3A, or 3B

Shifting from one scenario to another over time is not realistic (especially allowing project credits and then disallowing) given the complexity of the negotiations involved in long-term agreements.

Need to get it right from the beginning



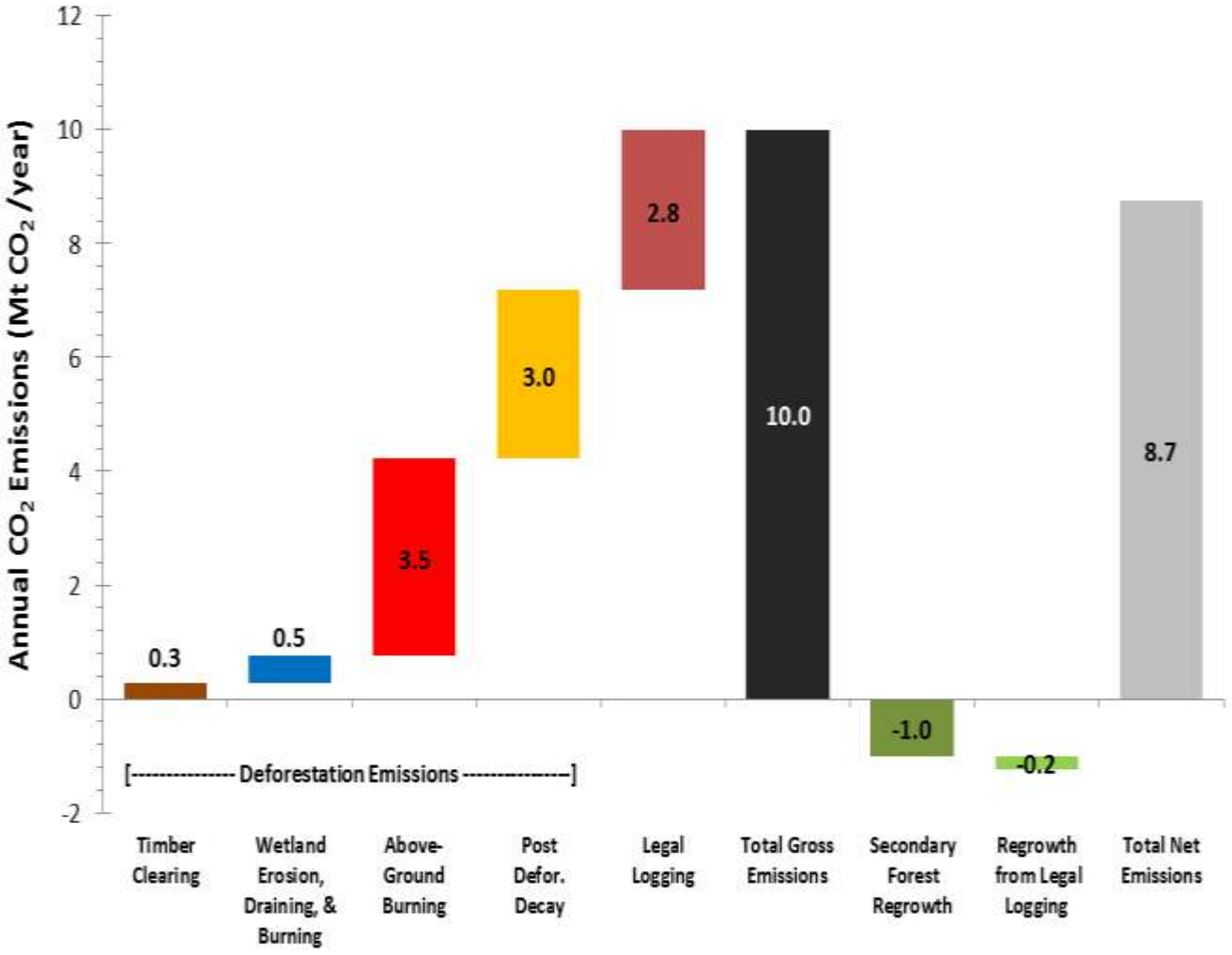


Source: Adapted from VCS-Jurisdictional and Nested REDD+

There are numerous benefits of avoiding project-level crediting within a jurisdictional program

Benefit	Short-term	Long-term
Does not require full agreement on carbon rights ownership in Indonesia	X	
Does not require long-term tenure certainty at beginning of the program	X	
More flexibility in design of site-level incentive agreements to address multiple objectives	X	X
Lower transaction costs compared to site crediting	X	X
Easier nesting within national program under various funding scenarios (market; fund-based)	X	X
Simpler to design and deliver programmatic approaches for technical assistance	X	X
Genuine alternative for Indonesia to test during REDD+ pilot phase	X	

Net Forest Emissions in Berau 2000-2010



- The Nature Conservancy (TNC),
- World Agroforestry Centre (ICRAF),
- Woods Hole Research Center (WHRC),
- Winrock International,
- University of Maryland,
- CCROM,
- Universitas Mulawarman,
- University of Florida,
- US Forest Service,
- Daemeter Consulting

A jurisdictional REDD+ strategy must be in line with **Indonesia's primary goal of improving the well-being of its people** and will need to accelerate sustainable development in both short-term and long-term

Principles

- Select REDD+ strategies that reduce emissions cost effectively, provide substantial co-benefits, and develop capacity in key areas
- Drive creation of new opportunities with low emissions
  - Explore potential for carbon itself can be a new business for Berau generating a new and substantial revenue stream through emerging carbon finance mechanisms
- Ensure that the cost of implementing direct emission reduction strategies is lower than the associated carbon revenues, and surplus funds are reinvested in key areas to achieve long-term growth.

Strategic Programs

- Strengthen enablers
  - Stakeholder engagement; olicies and institutions; financial management
- Integrate carbon management into development planning
  - Develop a large landscape plan that incorporates environmental (carbon, biodiversity, water) and social conservation priorities
  - Systematic application of the mitigation hierarchy across sectors
- Improve site management
  - Support private sector natural resource managers to meet international sustainability standards to ensure long-term license to operate (FSC; RSPO; BetterCoal)
  - Empower communities

Themes in green development in BFCP: reduce carbon intensity, create more value locally, broaden the distribution of opportunities

Theme	Community economy	Production forestry	Oil palm	Protection	Other
Reduce CO2 intensity of current activities	• Wet-rice production • Reduction of ladang areas	• Reduced impact logging • Siting timber plantations on degraded land	• Sustainable intensification to increase yield per hectare • Siting concessions on degraded land • Methane capture • Agricultural BMPs to reduce GHG	• Effective management systems to reduce encroachment and illegal logging	• Sub-surface mining • Aquaculture/ mangrove conservation
Create more value within sector in Berau	• Improved agroforestry techniques • Community nursery business	• Increase secondary processing within Berau • Channel waste wood for community use	• Inter-cropping in early years of plantation • Improved yields for small-holders	• Carbon payments • Water payments • NTFP agreements with local communities	• Expansion of ecotourism to forests
Broaden distribution of opportunities and benefits	• Compensation for community management of forests • Support community forestry	• Timber supply agreements for local markets	• Improved implementation of company-community partnerships (plasma)	• Community management agreements and incentive payments	• Community-led ecotourism

A jurisdictional program needs to integrate REDD+ into development planning as well as site management

Ideally, this would involve systematic application of the mitigation hierarchy to an already agreed large landscape plan that includes environmental and social conservation priorities.

LARGE LANDSCPE PLAN

Integrated map of assets and conservation priorities to use in evaluating development plans and REDD+ investments:

Natural capital assessment

- Forest carbon
- Watershed services
- Biodiversity

Community conservation priorities

+

MITIGATION HIERARCHY

AVOID

- Integrate REDD+ into development planning and licensing

REDUCE

- Improve site-management practices to reduce emissions

COMPENSATE?

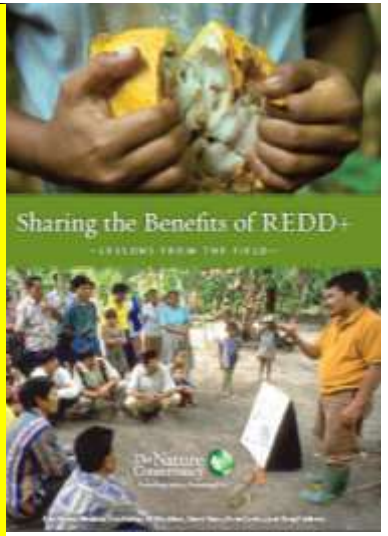
- Structure compensation financing from high-impact industries

Potential benefits of REDD+ at different stages

Phase	Benefits
Scoping,& Readiness	• Improved forest governance; • Improved stakeholder participation in land-use planning; • Enhanced tenure and access security when mapping efforts help resolve tenure disputes and identify areas of social importance.
Demonstration, Policies & Measures	• New enterprises and improved performance of existing enterprises, including some focused on accessing niche markets for sustainable goods; • Improved tenure and access security as tenure disputes are resolved and mapping efforts mature; • Better land-use decision-making; • Improved forest governance resulting from cross-sectoral spatial planning, improved data, and regulatory streamlining; • Pay-for-performance funding may be piloted during this phase.
Full Implementation	• Improved institutional architecture; • New enterprises and low-carbon industries; • Payments for performance; • Technical capacity and partnerships; • Increased clarity around tenure and rights.

- Choice of REDD+ strategies has enormous implications for the development benefits generated.
- Costs—implementation, opportunity, transaction—are key factors in evaluating different potential approaches.
- But so are the non-carbon benefits of different strategies.
- Investments to improve the quality of the District's resources—human, institutional, natural—can yield both emission reductions and other benefits.

TNC document evaluating global experiences on benefit sharing in REDD+ programs



Comparing project-scale REDD+ carbon transactions with project agreements that are part of an internal allocation framework

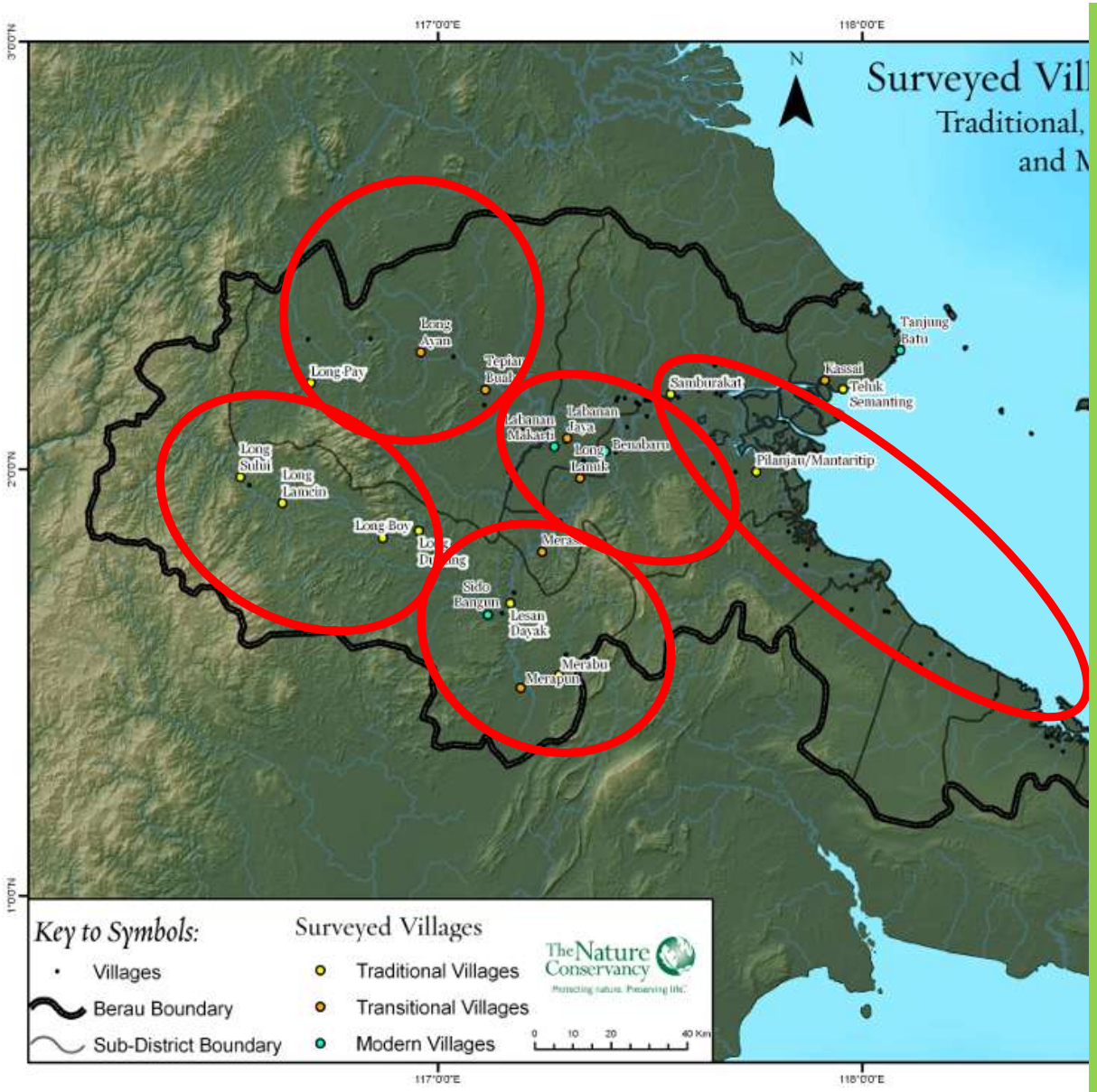
Characteristics	Carbon transaction	Project agreement
Performance measure	Verified emission reductions	Proxies for carbon impact or simplified emission est.
Duration	Generally 30+ years	Flexible
Parties	▪ Owner of carbon ▪ Buyer	Flexible; can be multiple parties
Precision of carbon benefits	Very high	Depends on proxies and design of agreement
Land tenure requirement	Long-term clarity	Flexible; can be adapted over time
Legal costs	High	Depends on approach
Aligning multiple benefits	Possible	Easy
SES	Same	Same

Project agreements can deliver a better balance of carbon precision and usability compared to site-level transactions

By the end of 2013 we will have substantial progress towards design of a RIL-C facility

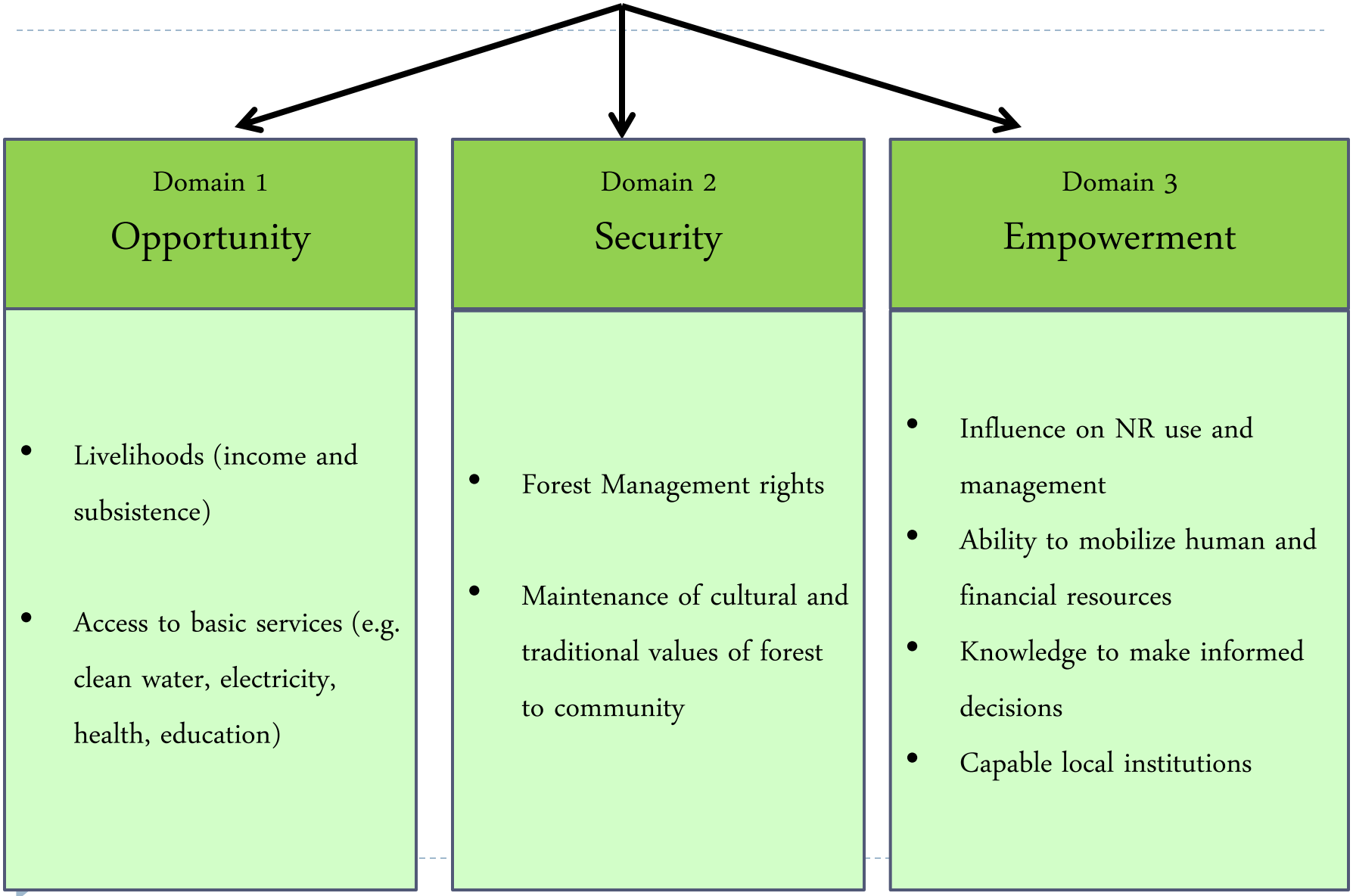
- **Draft VCS Methodology for RIL-C:** TNC, TFF, and TerraCarbon are working together to develop a Verified Carbon Standard (VCS) methodology for reduced impact logging (based on Berau science and analysis). The methodology will use a "performance standard" approach which we believe will substantially reduce transaction costs and create an easily scalable approach. The methodology should have initial validation by end of 2013.
- **Draft RIL-C implementation manual for concessions:** this would be an operational guide to accompany the VCS methodology.
- **Draft RIL-C Auditing guide**: based on the details of the methodology as well as the Indonesian implementation manual, this auditing guide will specify the monitoring and evaluation approach.
- **Feasibility study and key questions**: we will be doing extensive stakeholder consultation—with concessions as well as auditors and policy-makers—to understand which aspects of the RIL-C performance standard require modification to make them more acceptable or where there are major questions/problems to be solved through field testing.

Communities in Berau vary substantially; BFCP will develop "model villages" to refine approaches in each of the zones identified



- A total of 107 villages along two main rivers, Kelay and Segah, and the east coast.
- Total population in 2009 was 175,000 people.
- Population density of 4-5 people/km2.
- Upper Segah and Kelay watersheds are home of Punan (highly dependent on forests) and Gaai.
- Lower Segah, Kelay, and coastal areas have higher ethnic diversity: IPs and migrants (Java, Bali, Sulawesi, etc.).
- TNC has been working for almost a decade in Upper Segah (5 villages), Upper Kelay (6 villages), and Lower Kelay/Lesan (5 villages).

Human Well-Being Framework for BFCP



Adapted from the World Bank's Attacking Poverty framework

Types of input-based payments possible in incentive agreements

Management and Institutional Development

- Capacity building
- Formulation of management plans
- Coordination

Mitigation and carbon enhancement

- Reduction in the extent of swidden plots
- Prevent forest conversion into oil palm
- Forest patrol (against illegal logging, encroachment, wildlife poaching, etc. in production and protection forests)
- Tree planting and maintenance (on degraded lands)

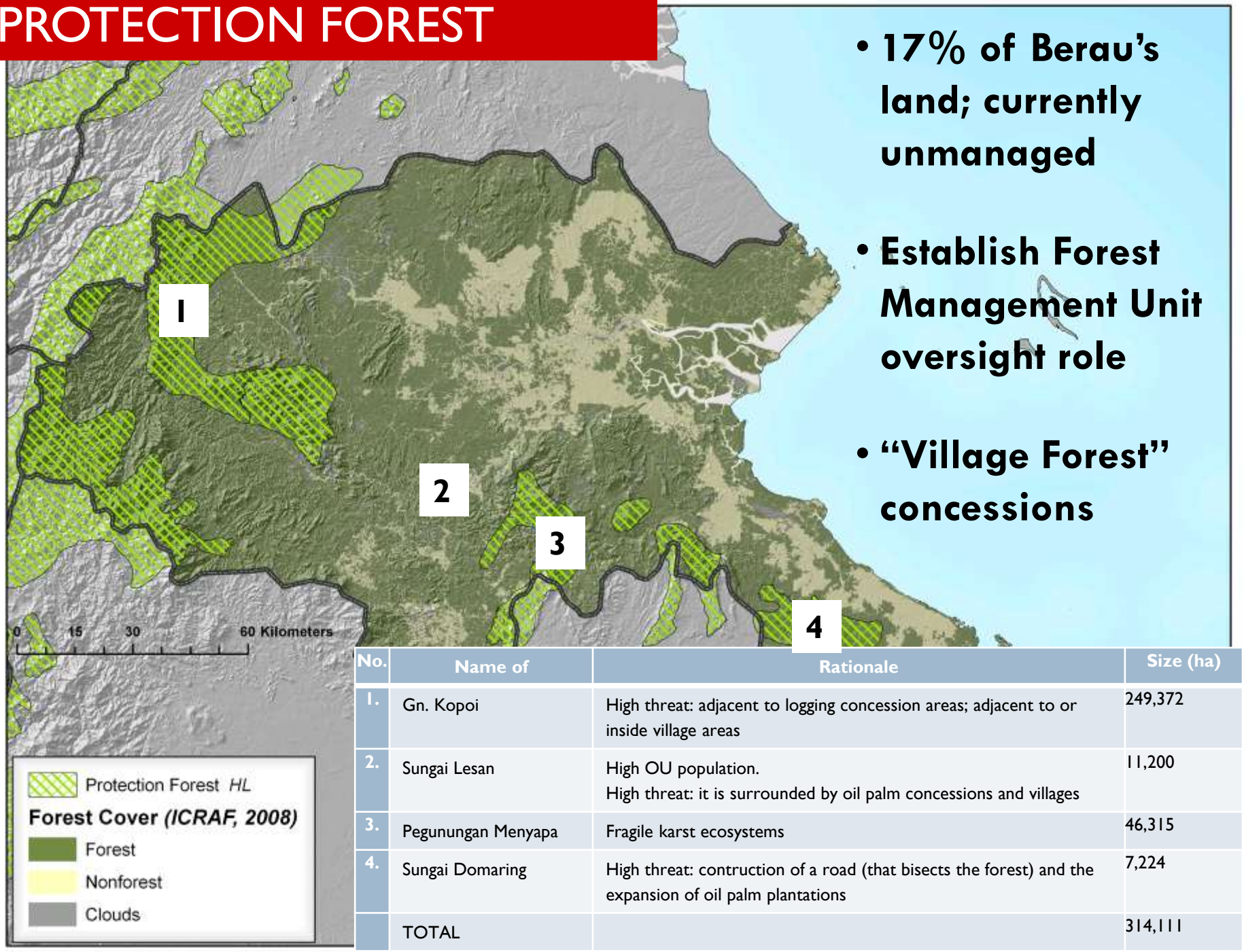
Livelihood development ('compensation' and incentives)

- Agriculture intensification
- Small-scale rubber plantation on fallow lands
- Fish ponds
- Livestock raising
- Ecotourism
- Commercialization of non-timber forest products
- Micro-finance development

Types of **performance-based payments** possible in incentive agreements

TYPES OF INCENTIVE	BASIS OF PAYMENT (INDICATORS)	EXAMPLE OF INDICATORS
Output-based	Payment is made upon the maintenance or improvement of desirable state of natural resources.	<u>Output indicators:</u> • At least 60% healthy planted trees • Zero illegal logging • Zero wildlife poaching
Outcome-based	Payment is made upon the production of desirable environmental outcomes	<u>Outcome indicators:</u> • Higher forest cover • Reduced rate of deforestation and forest degradation • Reduced sedimentation • Increased biodiversity (indicated by biodiversity index?)

PROTECTION FOREST



- 17% of Berau's land; currently unmanaged
- Establish Forest Management Unit oversight role
- "Village Forest" concessions

No.	Name of	Rationale	Size (ha)
1.	Gn. Kopoi	High threat: adjacent to logging concession areas; adjacent to or inside village areas	249,372
2.	Sungai Lesan	High OU population. High threat: it is surrounded by oil palm concessions and villages	11,200
3.	Pegunungan Menyapa	Fragile karst ecosystems	46,315
4.	Sungai Domaring	High threat: contruction of a road (that bisects the forest) and the expansion of oil palm plantations	7,224
	TOTAL		314,111