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The role of spatial analyses in supporting REDD+ planning: enhancing benefits and reducing risks

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Overview

1. Introduction to this collaboration
2. The role of spatial analyses in REDD+ planning
3. Progress and status in Viet Nam
4. Next steps

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1. This collaboration

Partnership between:

- UN-REDD Viet Nam Programme Phase II
- United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC)
- Forest Resources and Environment Center (FREC), Forest Inventory and Planning Institute, and other planning centers
- Provinces: Binh Thuan, Lao Cai, Lam Dong, Ca Mau, Ha Tinh, Bac Kan

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- Goal of collaboration:

Build capacity for spatial planning, to inform provincial REDD+ planning and implementation of REDD+, by presenting benefits and trade-offs associated with REDD+ actions in particular locations, land-use designations and ecosystems.

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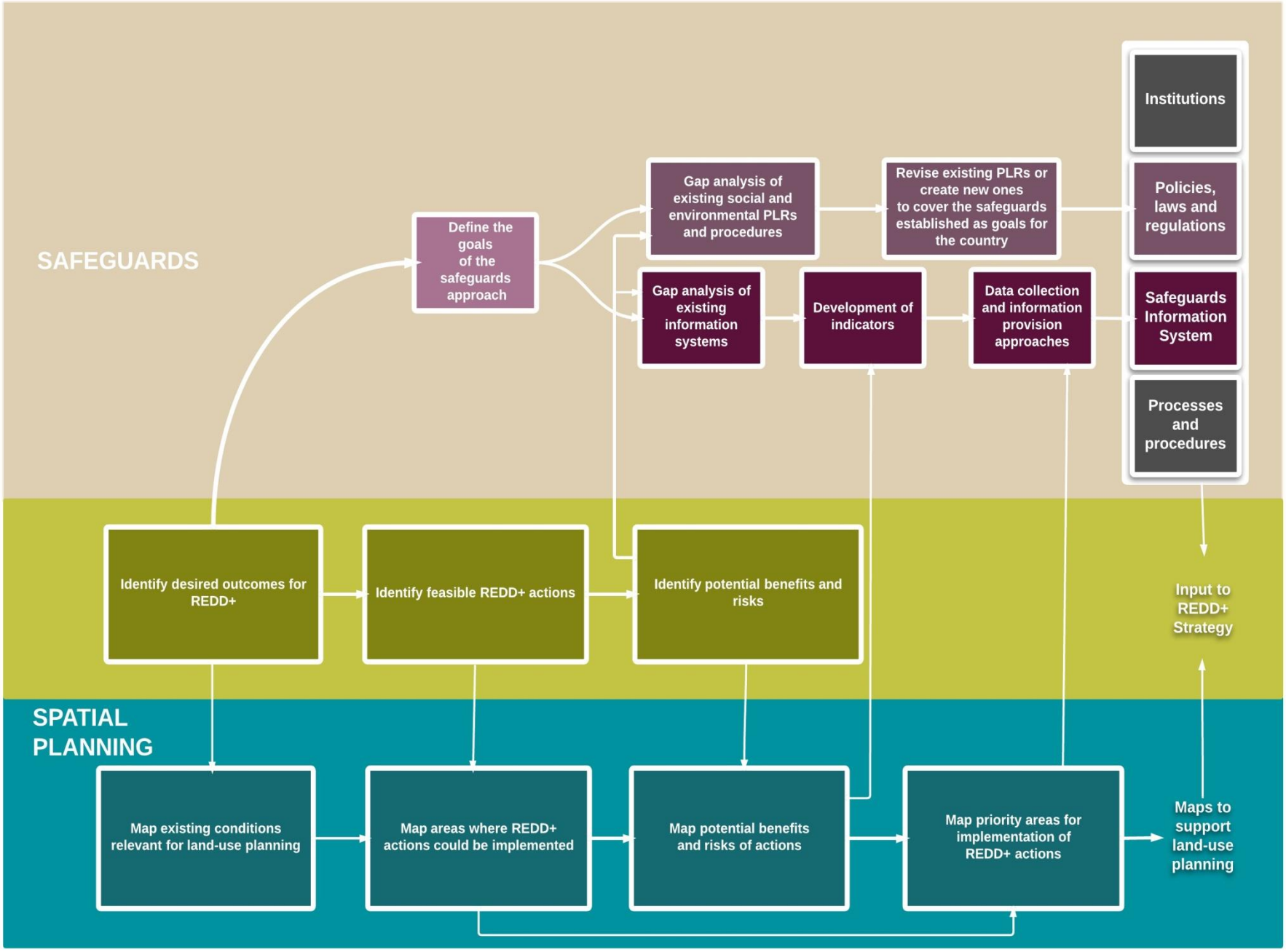
2. The role of spatial analyses in REDD+ planning

Spatial analyses can support land-use planning for REDD+ that enhances benefits, reduces risks and minimises costs.

Maps can help planners to:

- Identify desired outcomes for REDD+
- Identify feasible REDD+ actions
- Identify potential benefits and risks


SAFEGUARDS
Define the goals of the safeguards approach
Gap analysis of existing social and environmental PLRs and procedures
Revise existing PLRs or create new ones to cover the safeguards established as goals for the country
Institutions
Policies, laws and regulations
Gap analysis of existing information systems
Development of indicators
Data collection and information provision approaches
Safeguards Information System
Processes and procedures
Identify desired outcomes for REDD+
Identify feasible REDD+ actions
Identify potential benefits and risks
Input to REDD+ Strategy
SPATIAL PLANNING
Map existing conditions relevant for land-use planning
Map areas where REDD+ actions could be implemented
Map potential benefits and risks of actions
Map priority areas for implementation of REDD+ actions
Maps to support land-use planning

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Recap: REDD+ activities & actions

Activity	Example actions
Reducing emissions from deforestation	Eg: reduce conversion pressure by promoting conservation agriculture
Reducing emissions from forest degradation	Eg: sustainable NTFPs harvesting/production; fuelwood alternatives/efficient cookstoves
Conservation of forest carbon stocks	Eg: reinforcing existing protected areas
Sustainable management of forest	Eg: reduced impact logging; community forestry
Enhancement of forest carbon stocks	Eg: forest rehabilitation; afforestation

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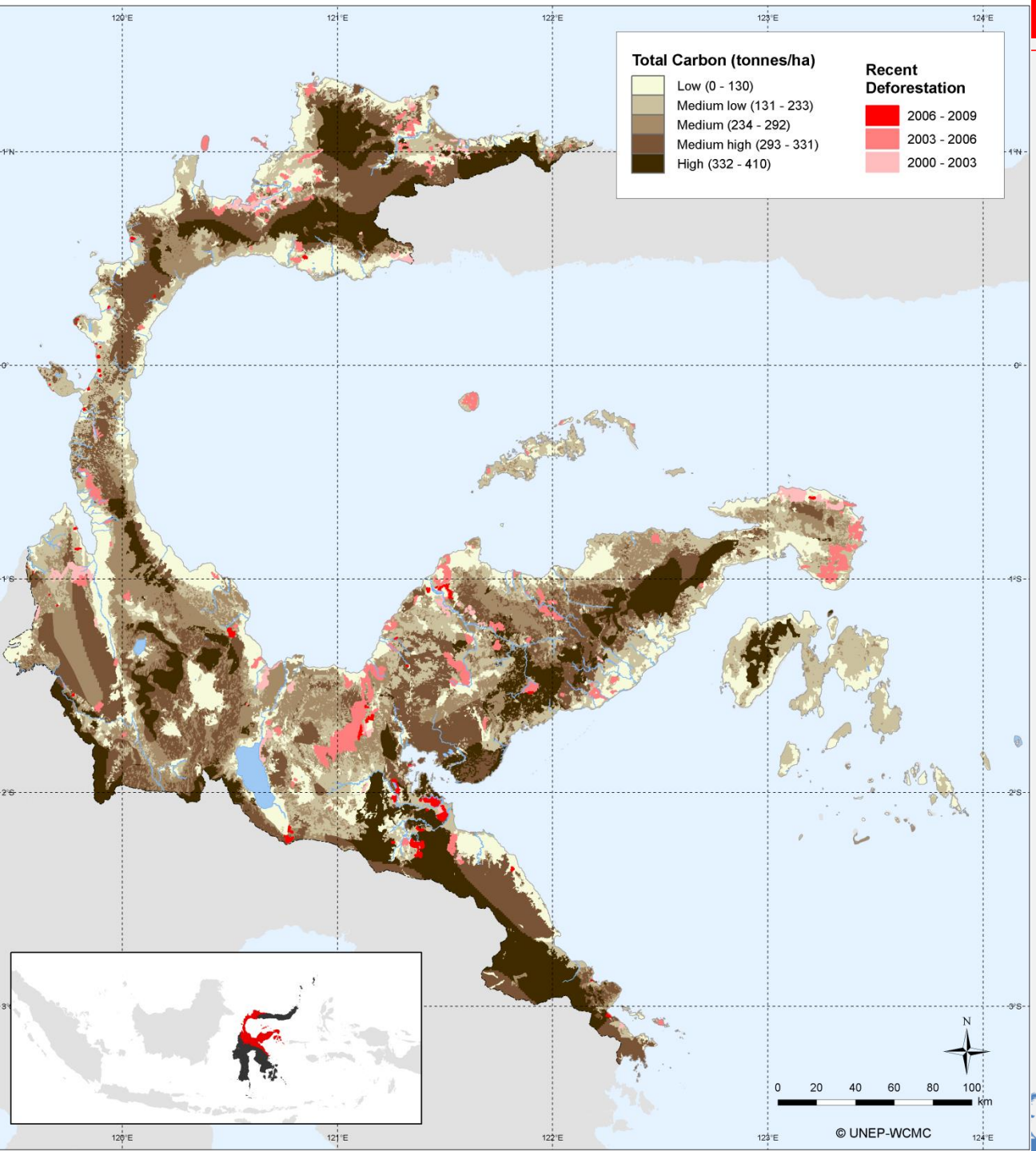
2.1 What are the existing conditions for land-use planning?

- Forest cover: where is the forest?
- Land-use cover: what other land use occurs in the landscape?
- Forest cover and land-use change: where is deforestation and forest degradation occurring?
- Where is there current/planned infrastructure and development?
- How is the population distributed?



For example

Central Sulawesi Province:

Carbon stocks and areas of recent deforestation

(2000-2009)

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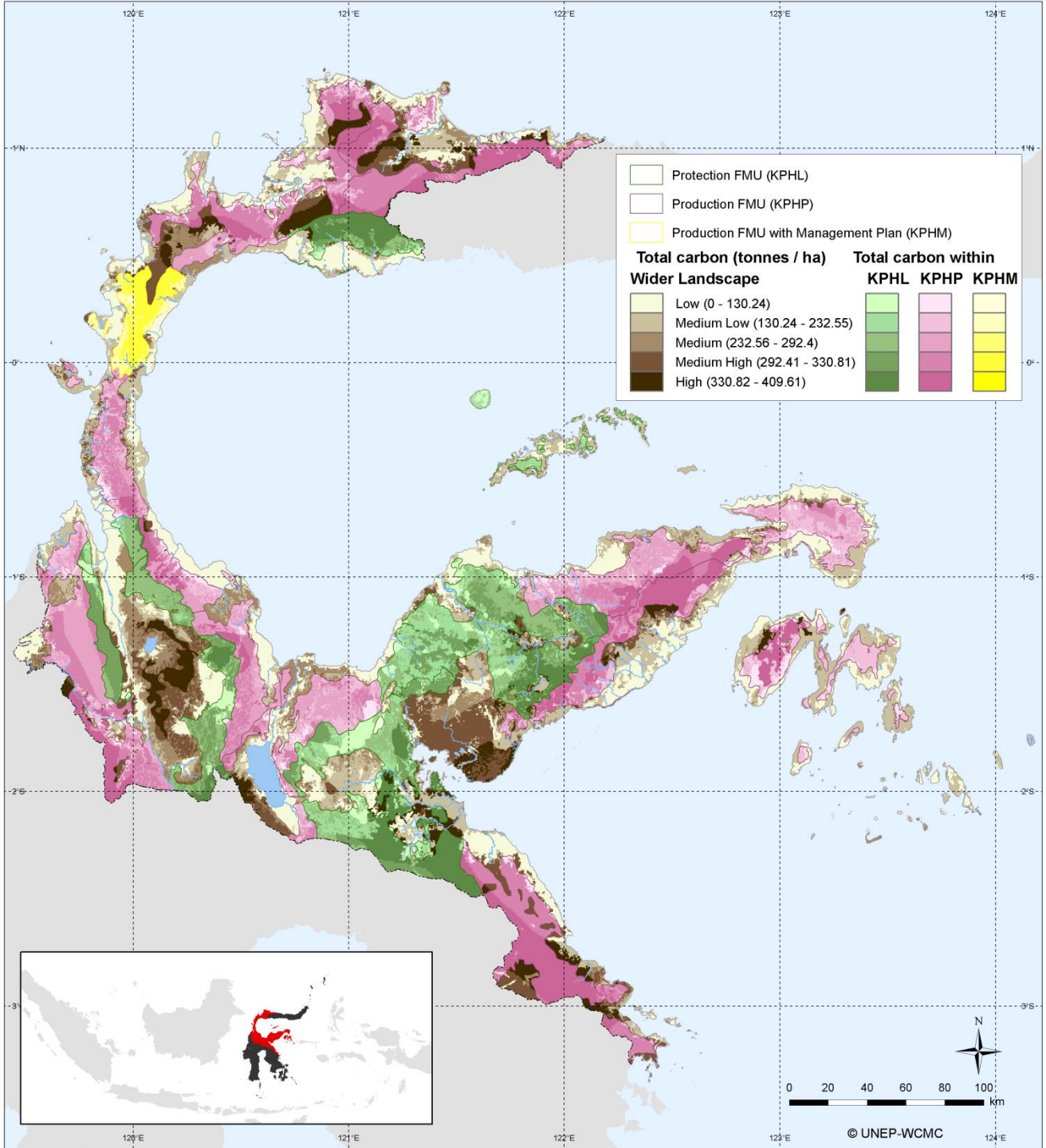
2.2 Where could REDD+ actions be implemented?

REDD+ actions require suitable locations

- What are the forest management categories?
- Where are the carbon stocks?
- What are the pressures? (E.g. drivers of deforestation)
- Feasibility/costs of implementation? (E.g. Road access, community forestry projects, opportunity costs)



For example

Carbon stocks in different forest management units

- *Protection FMU*
- *Production FMU*
- *Production FMU with management plan*

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2.3 What are the potential benefits and risks of REDD+ actions?

Benefits and risks vary between actions and spatially

- Multiple benefits of REDD+
- Risks of REDD+

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Beyond carbon: multiple benefits from REDD+

- When forests are retained or restored through REDD+, they deliver **additional benefits** to protecting or enhancing **carbon stocks**.
- All benefits from REDD+, including mitigating climate change, are referred to as **"multiple benefits"**
- Types of benefits from REDD+:
  - Ecosystem services
  - Livelihoods and social well-being
  - Biodiversity conservation
  - Improved natural resources governance

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E.g., in Viet Nam...

- The overall goal of the UN-REDD Viet Nam Phase II Program: "the reduction of greenhouse-gas emissions through efforts to mitigate deforestation and forest degradation, increased greenhouse-gas sequestration by forests, sustainable management of forest resources, biodiversity conservation, and contribution to the successful implementation of the national strategy on climate change and poverty reduction, and striving towards sustainable development."

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REDD+ also has risks

- Environmental risks could include:
  - Conversion of natural forest to other land uses
  - Intensification of pressures in areas important for biodiversity or ecosystem services (e.g. through displacement of pressures)
- Social risks could include:
  - Reduced access to resources for forest users
  - Inequitable sharing of REDD+ benefits
  - Conflicts over land
  - Displacement of forest dependent communities

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Cancun Safeguards

- Agreed by Parties to UNFCCC, they aim to guard against harm from REDD+ and enhance benefits
- Countries have agreed to promote and support the Cancun safeguards – countries decide how to apply them (e.g. *Viet Nam Safeguards Roadmap*)
- The safeguards address both benefits and risks – designing REDD+ to deliver multiple benefits helps to fulfil the Cancun commitments

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The Cancun Safeguards address the following issues:

- Consistency with objectives of national forest programmes and relevant international conventions and agreements;
- Transparent and effective national forest governance structures;
- Respect for the knowledge and rights of indigenous peoples and members of local communities;
- The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities;
- Conservation of natural forests and biological diversity and enhancement of other social and environmental benefits;
- Actions to address the risks of reversals;
- Actions to reduce the displacement of emissions

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So how can spatial information be used to explore REDD+ benefits, risks and safeguards?

Multiple benefits:

- **Improved livelihoods for local communities** – location of poor districts/communes, income inequality, community forestry areas.....
- **Conservation of biodiversity** – location of key biodiversity areas, corridors, important bird areas, endemic species, Red List species.....
- **Protection/enhancement of water quality** – location of watersheds, hydropower facilities, soil erosion risk.....
- **Improvement of natural resources governance** – FMUs with/without management plans, forest tenure, current and future land concessions.....

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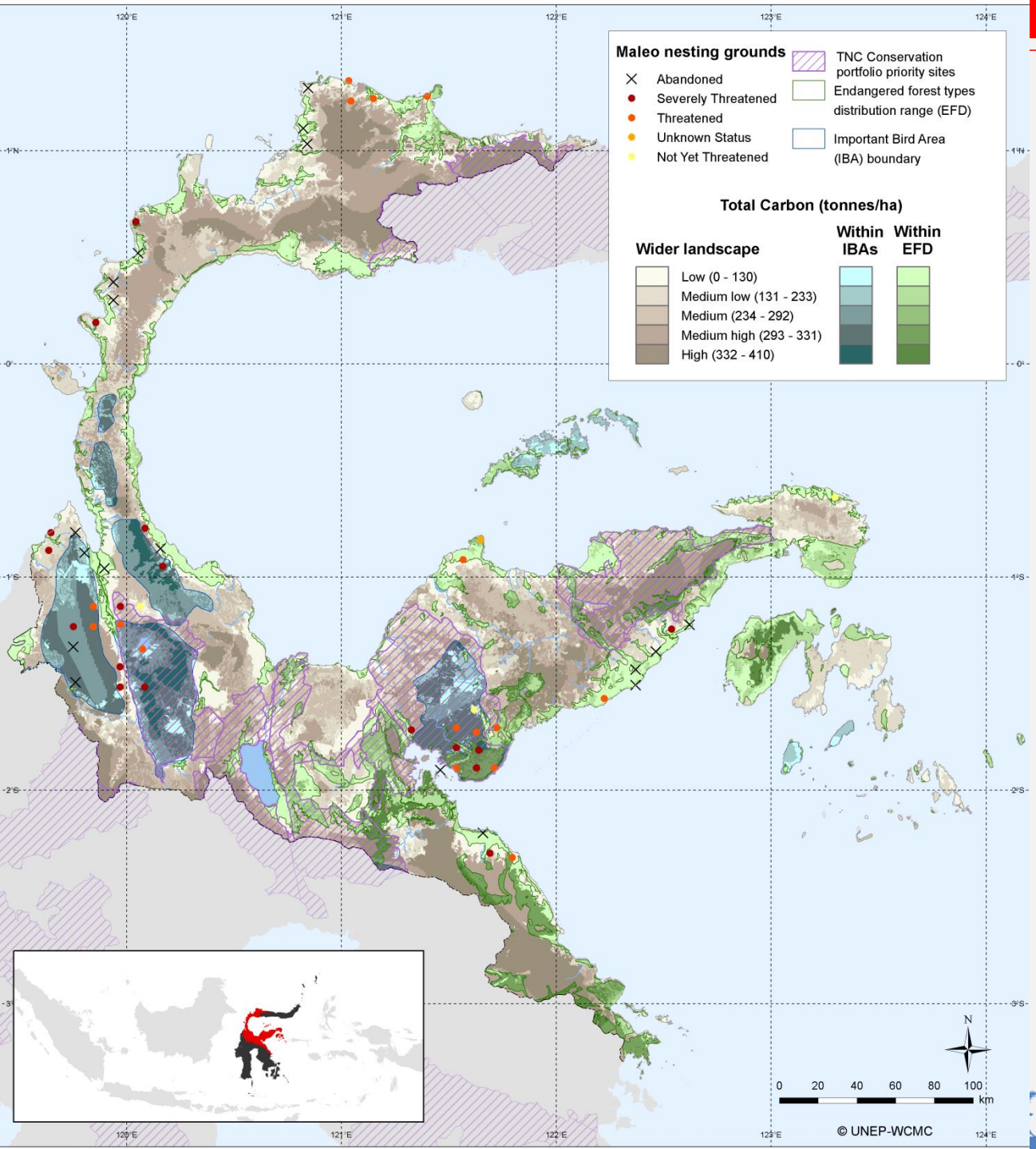
Using spatial information to explore REDD+ benefits, risks and safeguards, cont:

Safeguards

- **Conversion of natural forest and biodiversity** - Location of natural forests and other forest types, distribution of biodiversity....
- **Knowledge and rights of communities and indigenous peoples**: location of communities and indigenous peoples, community managed areas.....
- **Complement/consistent with national forest programme plans/priorities/targets –** future forest sector plans, forest management categories.....
- **Reduce the displacement of emissions:** drivers of deforestation, areas at risk of displaced pressure....



For example

Important areas for biodiversity in relation to total carbon

- *Important Bird Areas*
- *TNC portfolio sites*
- *Maleo nesting sites*
- *Endangered forest types*

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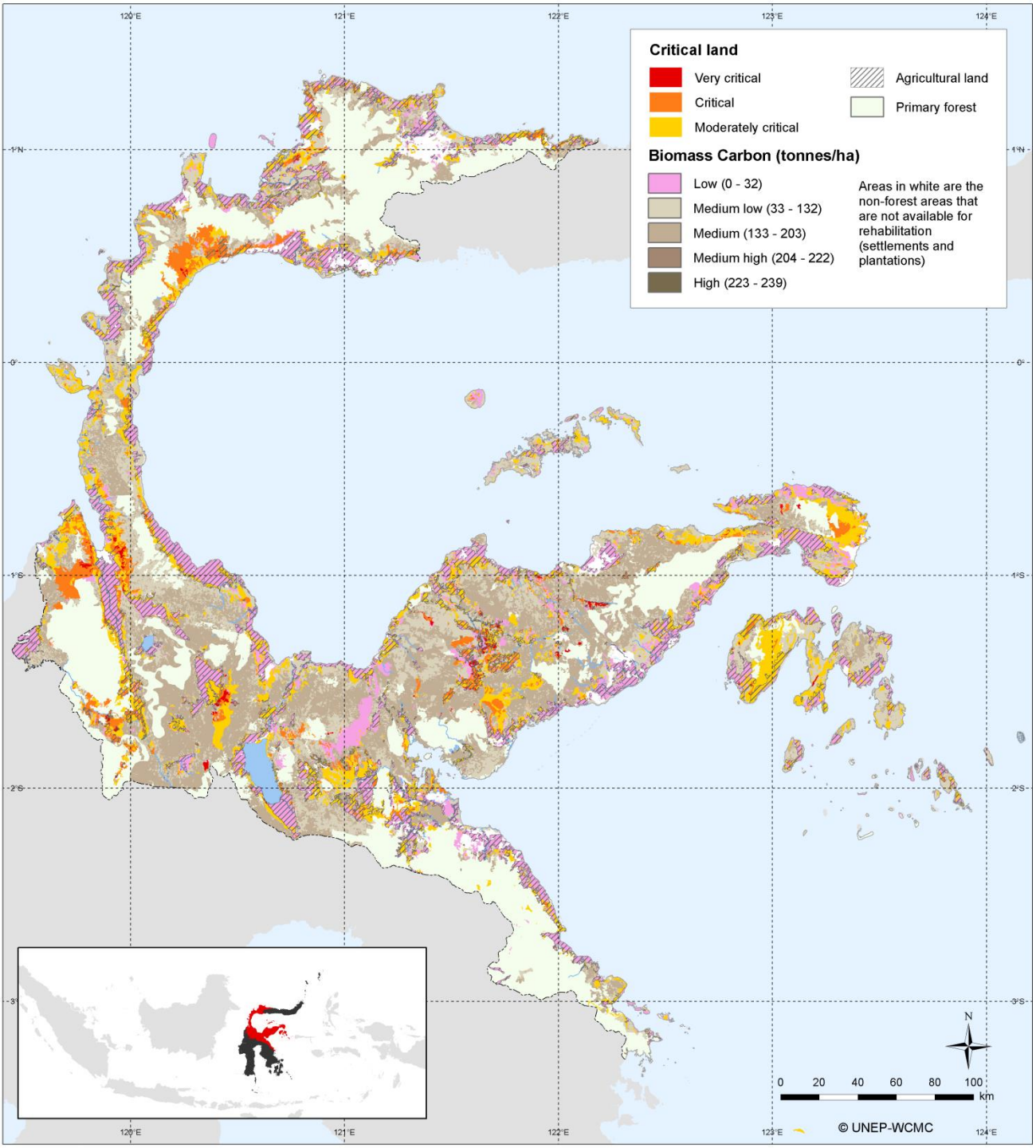
2.4 What are the priority areas for implementation of REDD+ actions?

- Based on existing conditions, the areas where REDD+ can be implemented, the potential benefits and risks
- Which areas would maximise benefits, mitigate risks and reduce costs?
- Which areas should be included?
- What areas should be excluded?



For example

Central Sulawesi Province:

potential areas for REDD+ actions to rehabilitate forests

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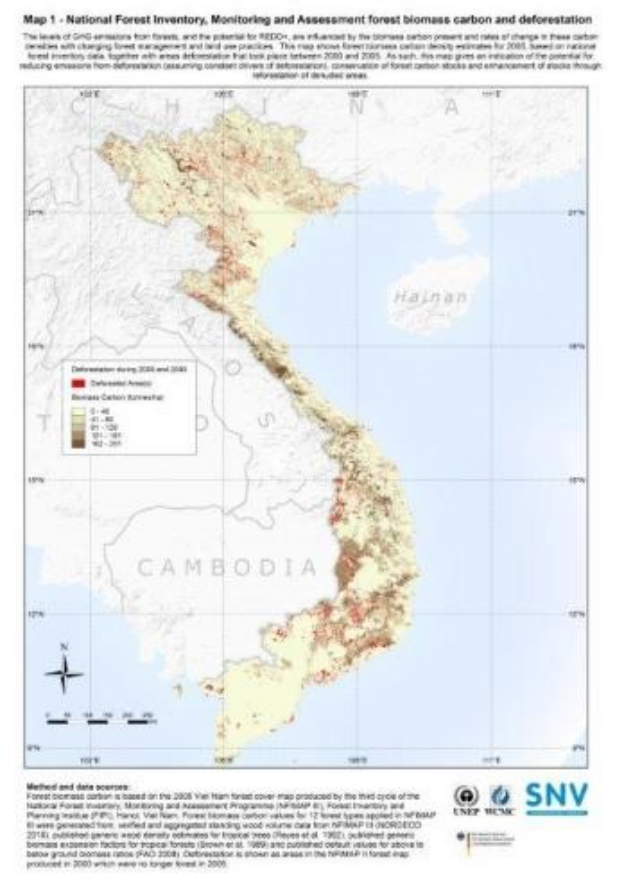
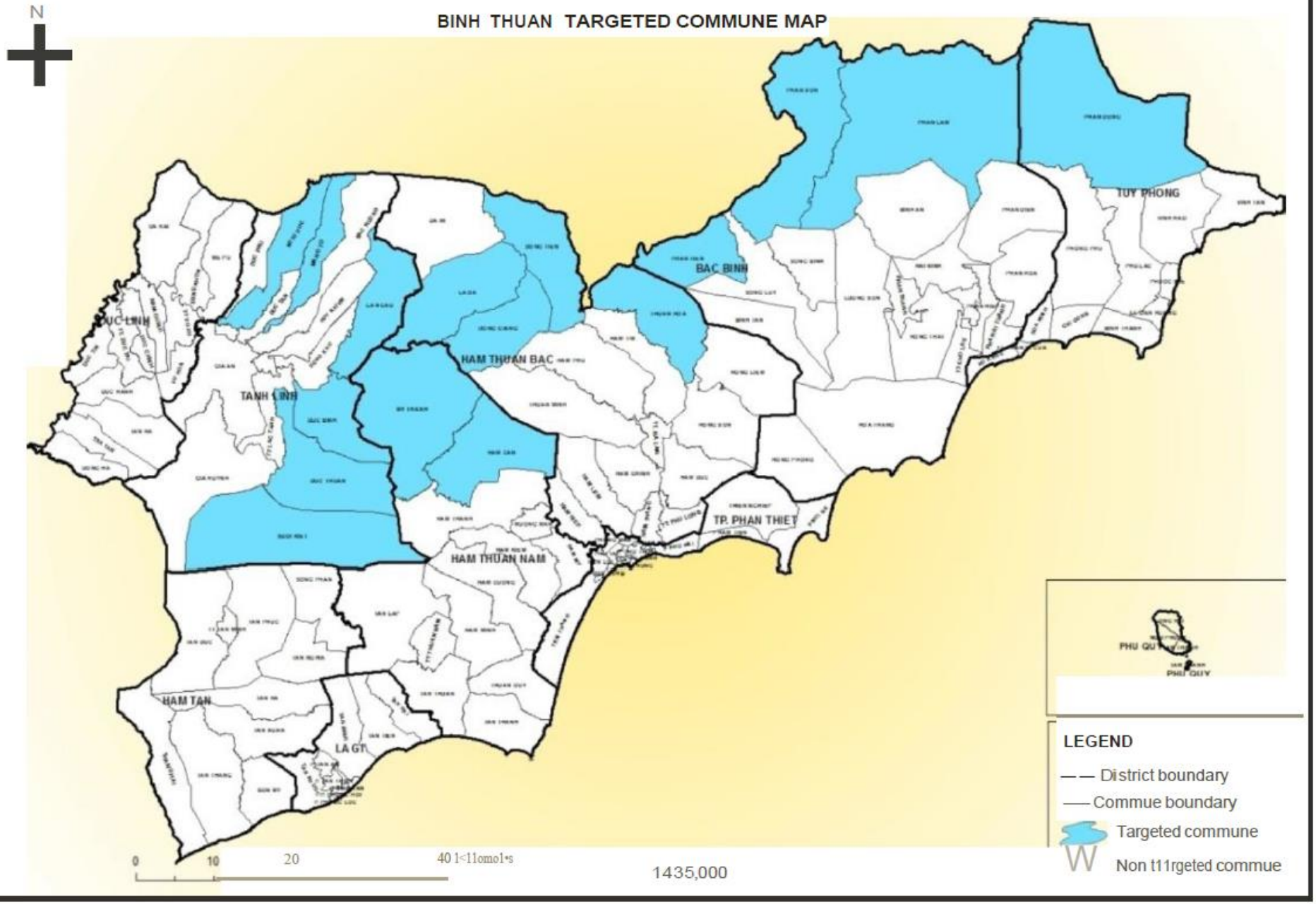
3. Progress and status of spatial planning for REDD+ in Viet Nam

- Viet Nam has long used spatial planning (GIS & RS) to support land-use and forest sector planning (e.g. NFI, FPDP, land-use plans)
- National level analysis on multiple benefits: *Mapping the potential for REDD+ to deliver biodiversity conservation in Viet Nam: A preliminary analysis* (2013).



Progress and status, cont.

- UN-REDD Viet Nam Phase II NP carried out initial identification of REDD+ priority areas for 6 pilot provinces (Annex G):
  - Forest cover & forest cover change
  - Carbon stocks
  - Forest management categories
  - Poverty
- Overlay of this spatial data to show potential priority areas by commune.
- Use of available spatial data; cost-effective approach to provide information for further consultation.
- Can be enhanced with more comprehensive datasets, local knowledge and stakeholder engagement in process.


BINH THUAN TARGETED COMMUNE MAP
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BAC BINH
TUY PHONG
HAM THUAN BAC
TANH LINH
TP. PHAN THIET
HAM THUAN NAM
HAM TAN
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LEGEND
District boundary
Commue boundary
Targeted commune
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Important considerations when using spatial analyses

- Maps can support decision-making by conveying spatial information in accessible way.
- Can be used for simple visualisation, as opportunity for awareness-raising, and communication with stakeholders.
- One of multiple tools for REDD+ planning.
- Spatial planning should be linked to stakeholder priorities and needs.
- Local knowledge, field data and community/stakeholder consultations also play a vital role.
- Not all information critical for planning can be presented spatially, and accurate/recent/high res data may not be available.

4. Next steps

- First joint working session: 16-27 June 2014
  - Week 1: joint session with FREC and other partners
  - Week 2: joint session with provincial participants
- Drafting and refinement of spatial analyses:
  - With input from REDD+ stakeholders in provinces
  - With technical support from FREC, partners & UNEP-WCMC
- Second joint working session: Q3/Q4 2014 (tbc)
  - Continued development of spatial analyses
  - Refinement of outputs
- Finalise outputs for supporting PRAP development and methodologies

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Thank You!

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