UN-REDD PROGRAMME

The role of spatial analysis in REDD+ planning

UNEP-WCMC

Monrovia, 13-16 February 2018

Outline

1. Land use planning and REDD+

2. Spatial analysis to support REDD+

3. The use of maps

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1. Land use planning and REDD+

2. Spatial analysis to support REDD+

3. The use of maps

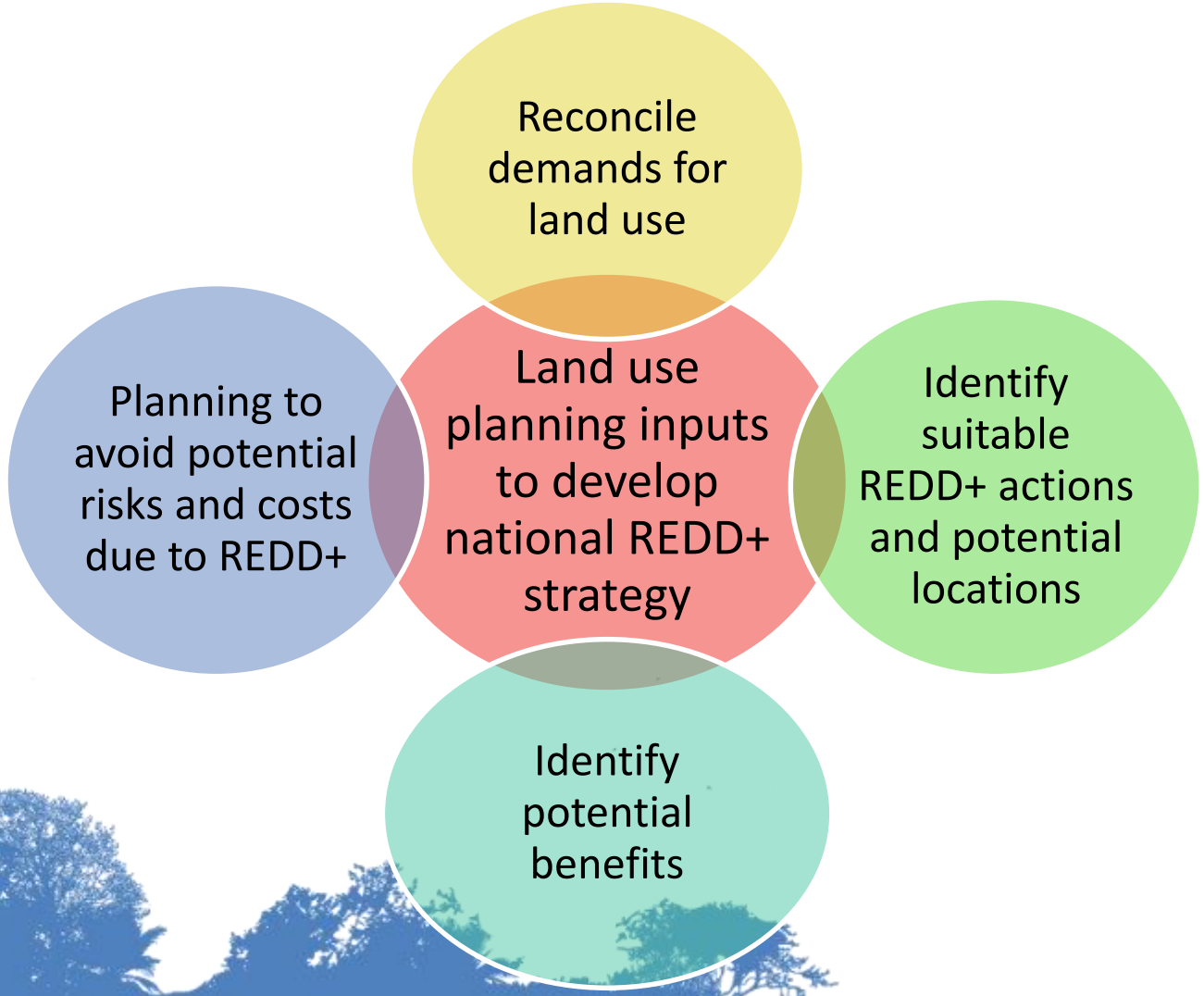
REDD+ involves 5 '***activities***' and numerous '***actions***' or '***interventions***'

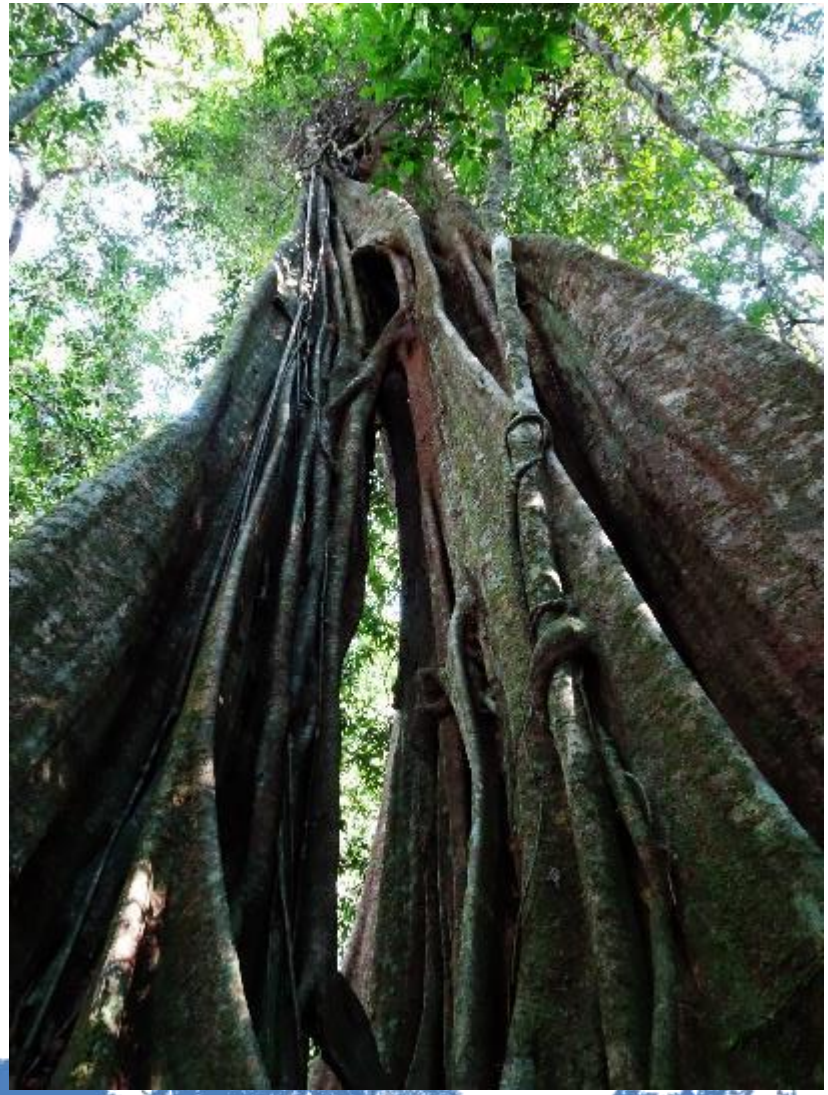
Activity	Example actions / interventions
Reducing emissions from deforestation	Eg: reduce conversion pressure through improved land-use planning
Reducing emissions from forest degradation	Eg: provide fuelwood alternatives/efficient cookstoves
Conservation of forest carbon stocks	Eg: consolidating management of existing protected areas
Sustainable management of forest	Eg: reduced impact logging; community forestry
Enhancement of forest carbon stocks	Eg: forest rehabilitation; afforestation

Land use planning and REDD+

- Land subject to competing uses – including urban areas and infrastructure, agriculture, forests and other ecosystems
- Land-use planning for REDD+ can help to:
  - assess alternative uses for land
  - identify priority locations for implementation of REDD+ actions, while enhancing potential benefits and avoiding potentials risks

Land use planning and REDD+

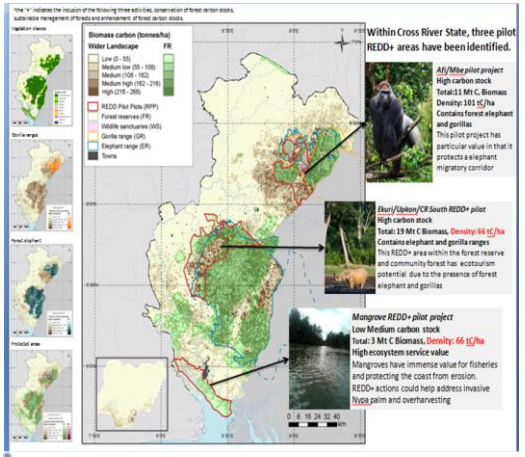




2. Spatial analysis to support REDD+

Spatial analysis to **support** REDD+ planning

- Spatial planning can help to:
  - 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
- Spatial analyses can support land-use planning for REDD+ that **enhances benefits**, **reduces risks** and **minimizes costs**

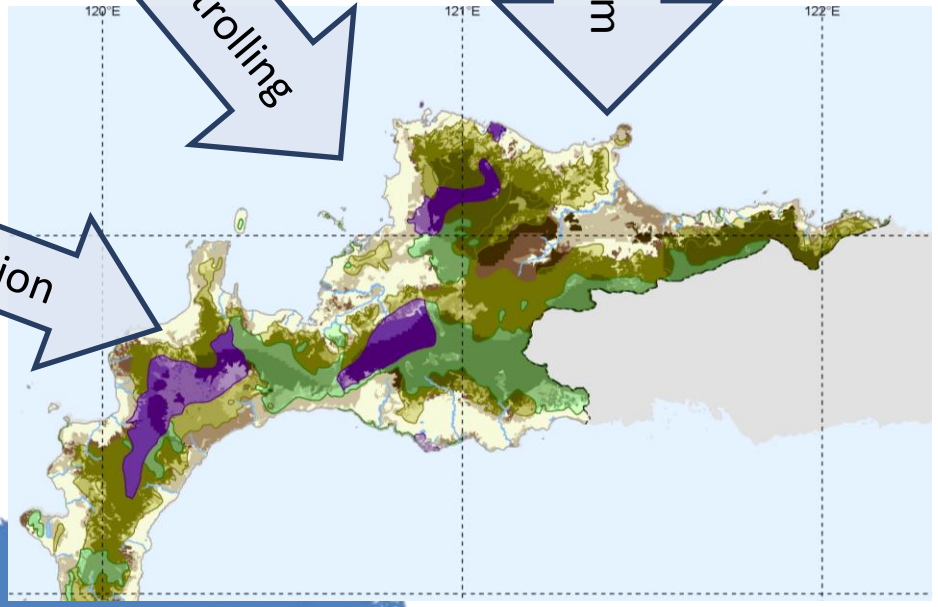


Different REDD+ actions will be appropriate in different places

Forest patrolling

Ecotourism

Reforestation



Potential benefits, risks and costs of REDD+ depends on where and how actions are implemented

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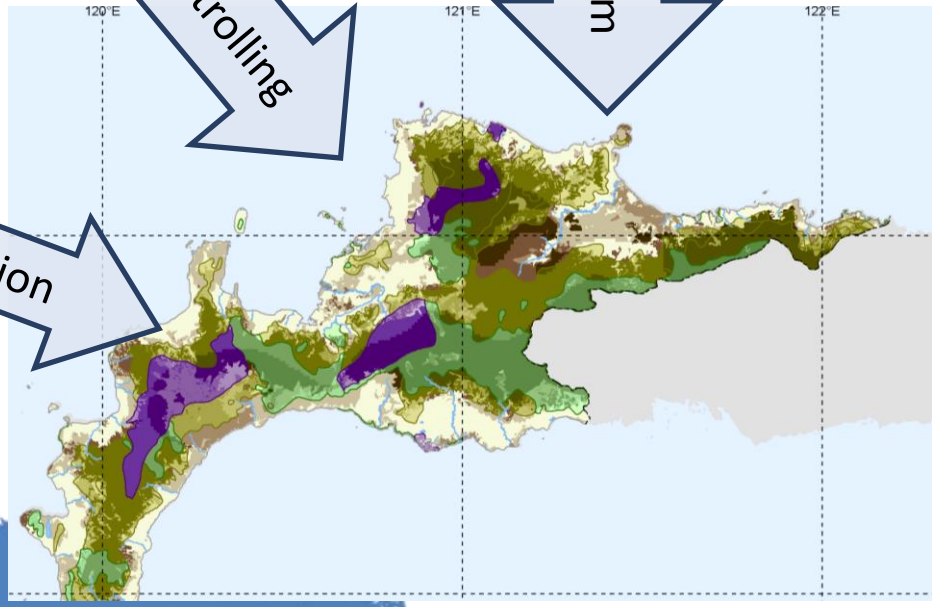
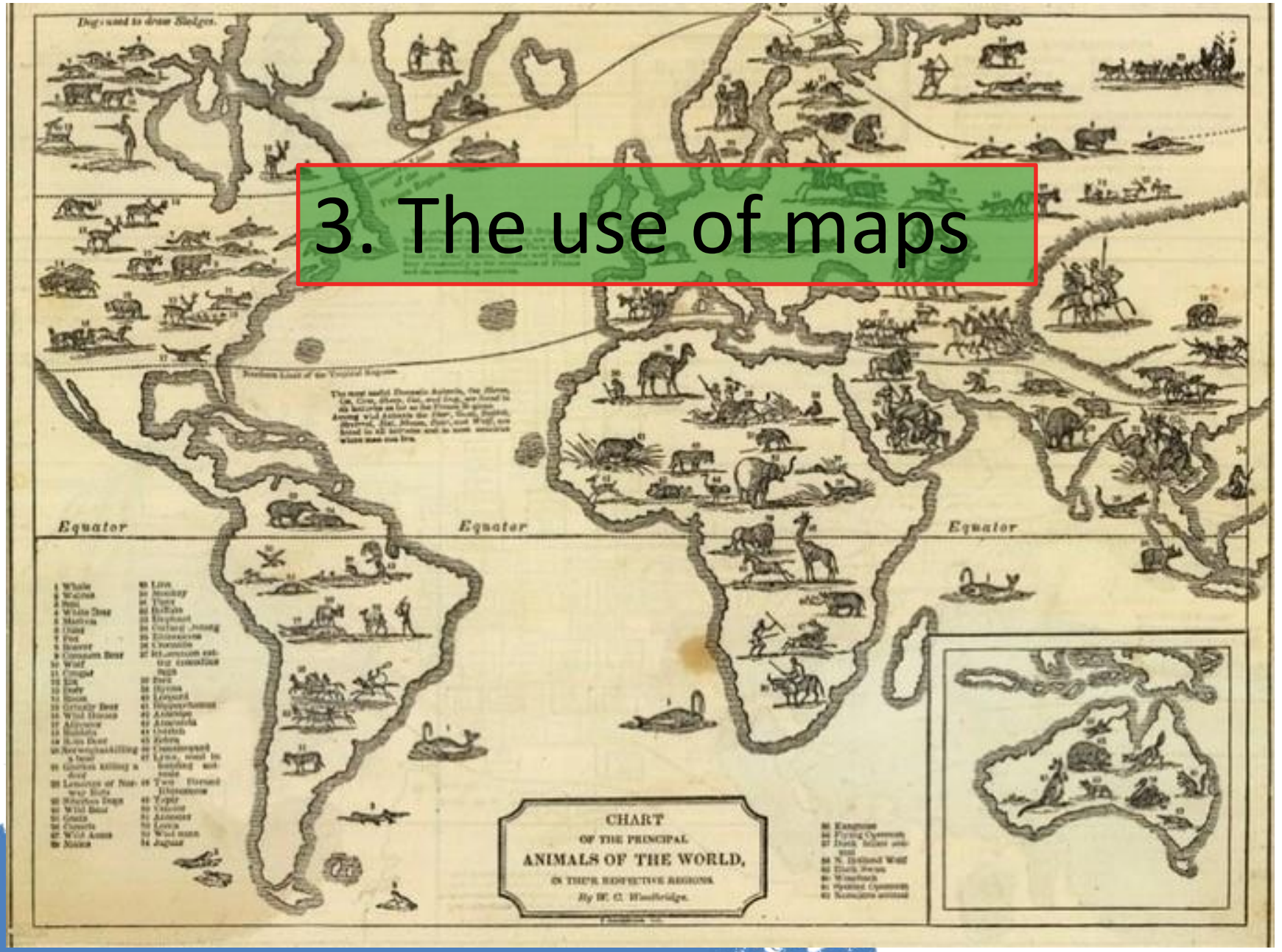
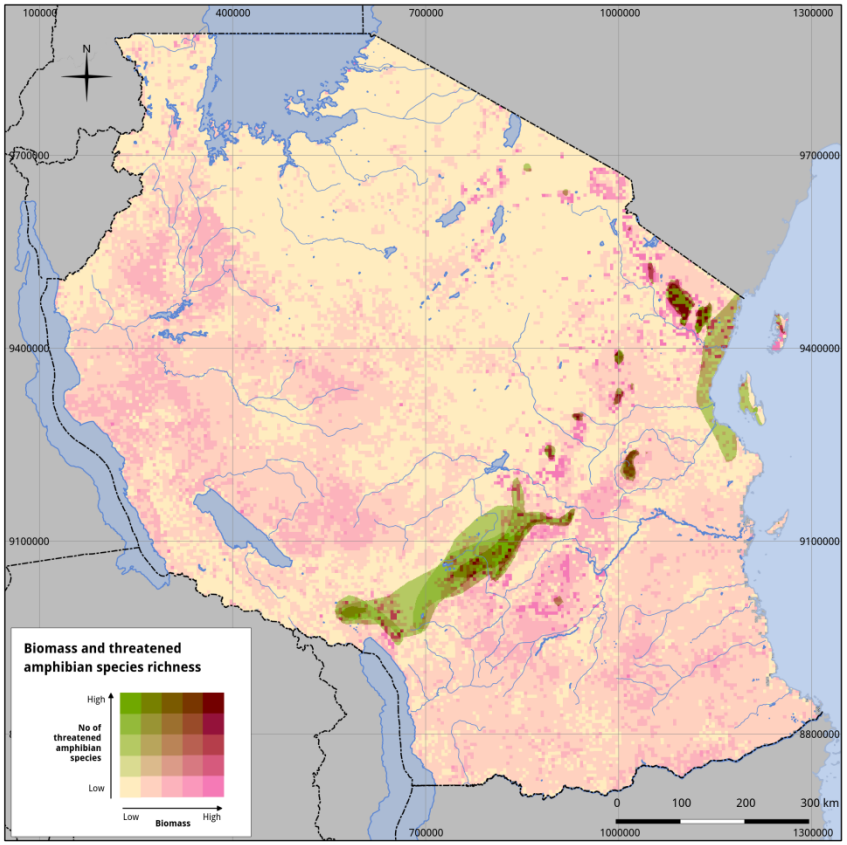




3. The use of maps

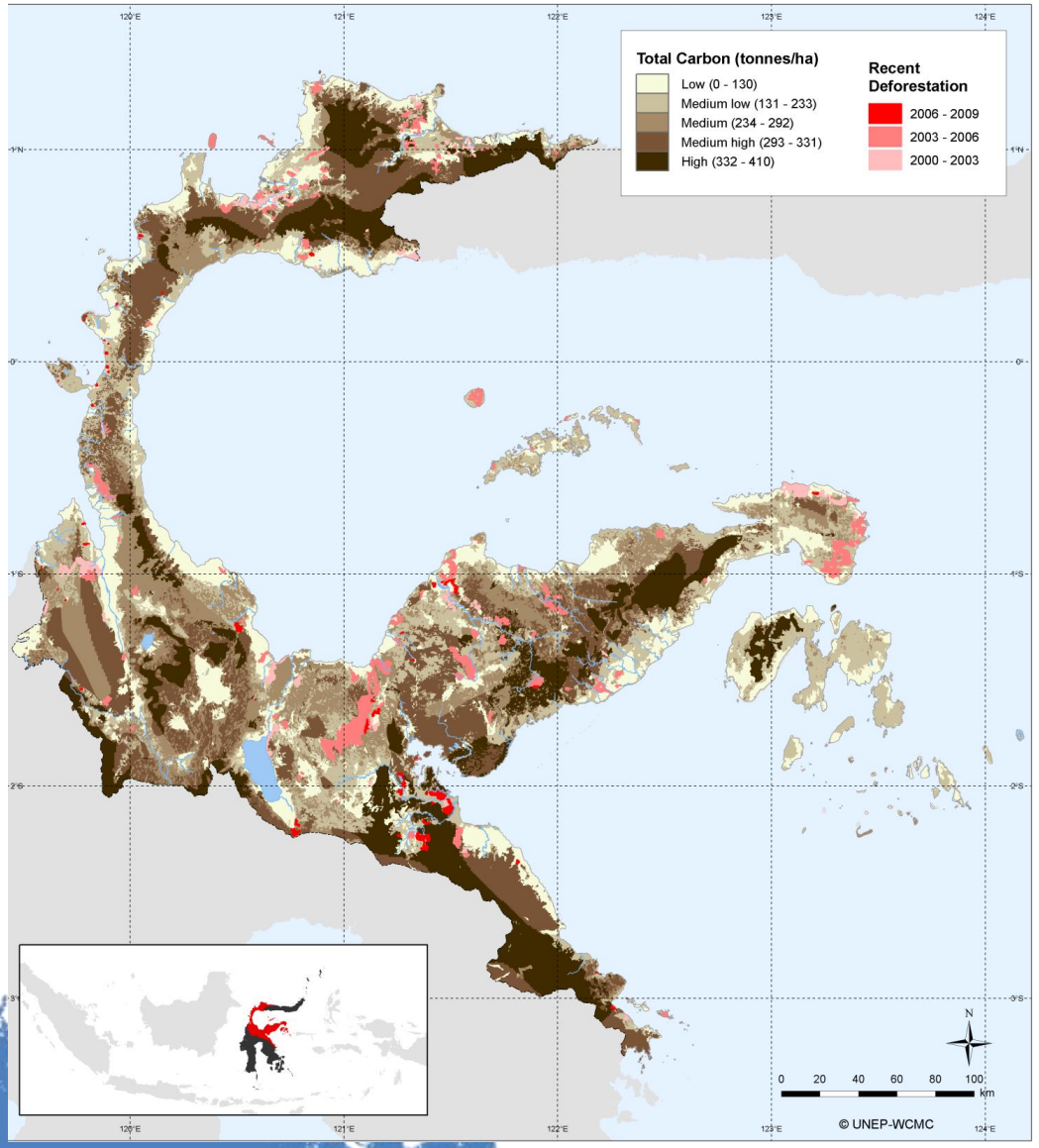
What questions a map can help answer?

- Which areas are under pressure that need to be addressed?
- Where can the desired benefits be achieved?
- Where might risk of unsuccessful implementation be high?
- What are the costs in different places?

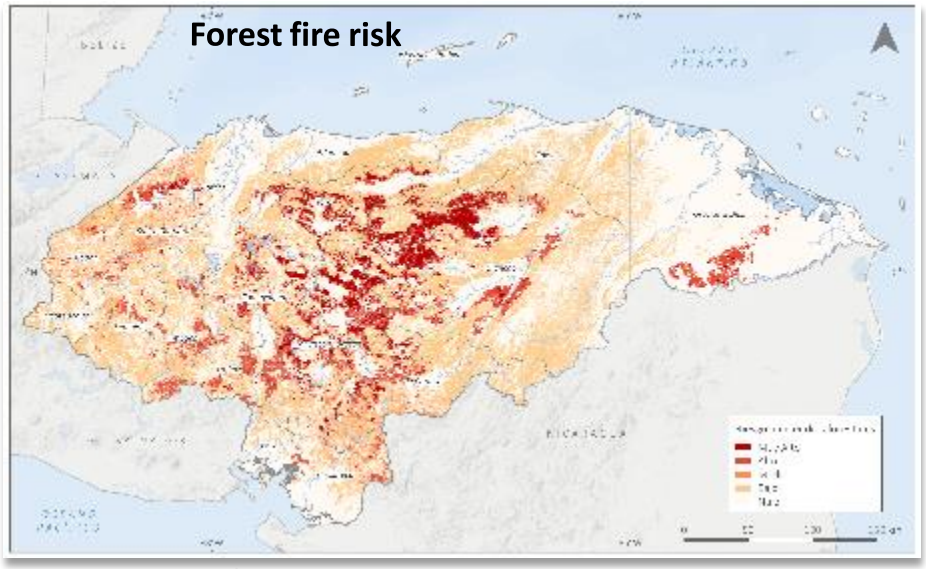


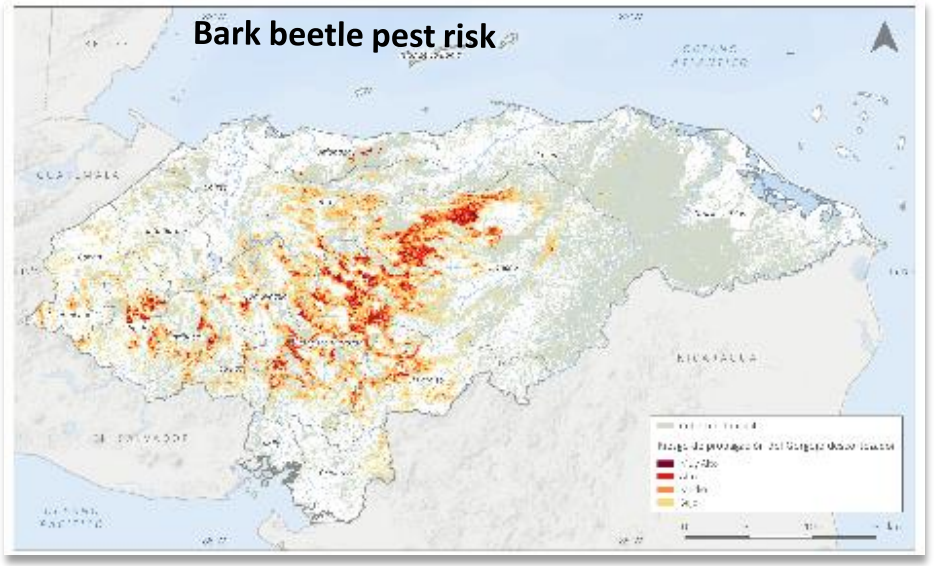
A. Understand the context for REDD+ planning

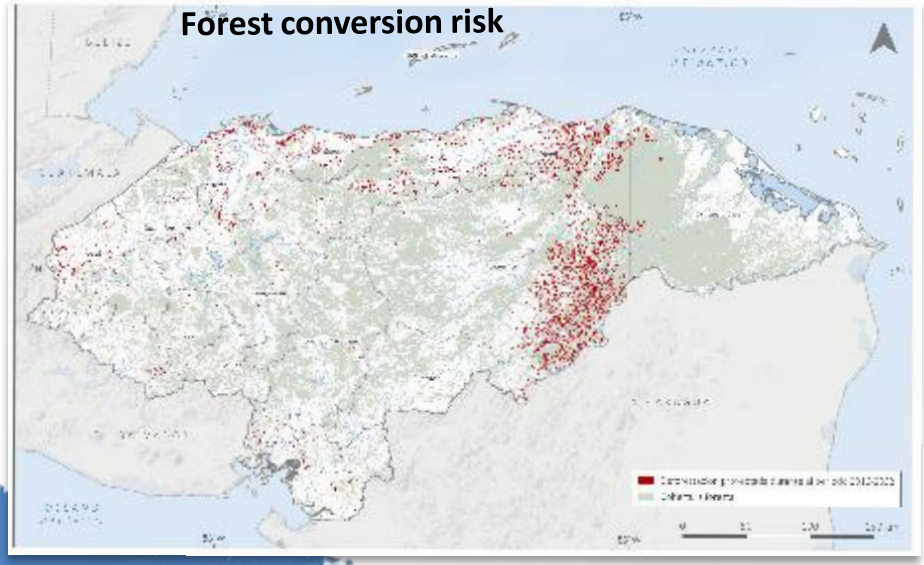
Carbon stocks and areas of recent deforestation (2000-2009) in Central Sulawesi



B. Understand drivers of deforestation and degradation



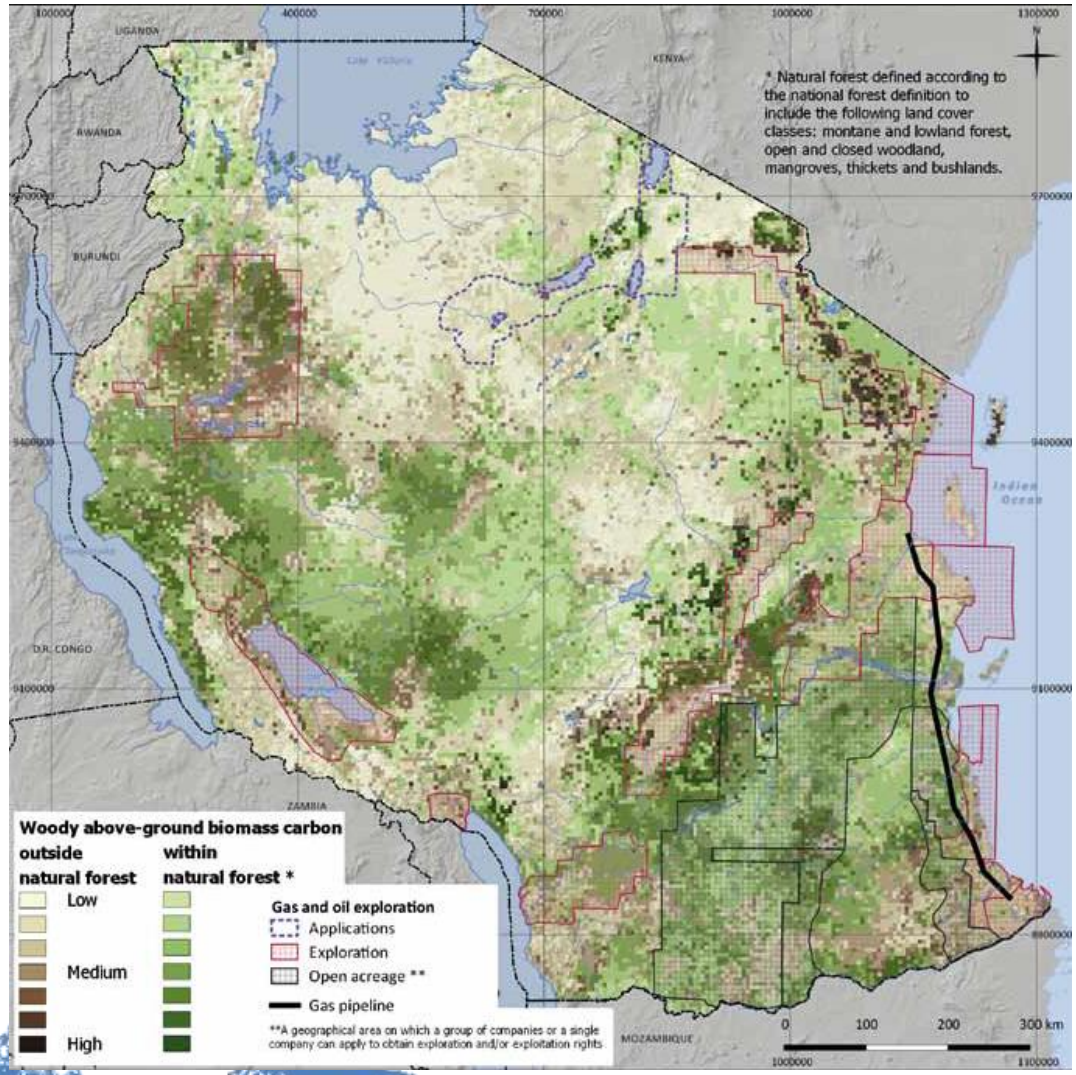




Deforestation drivers: Honduras case study

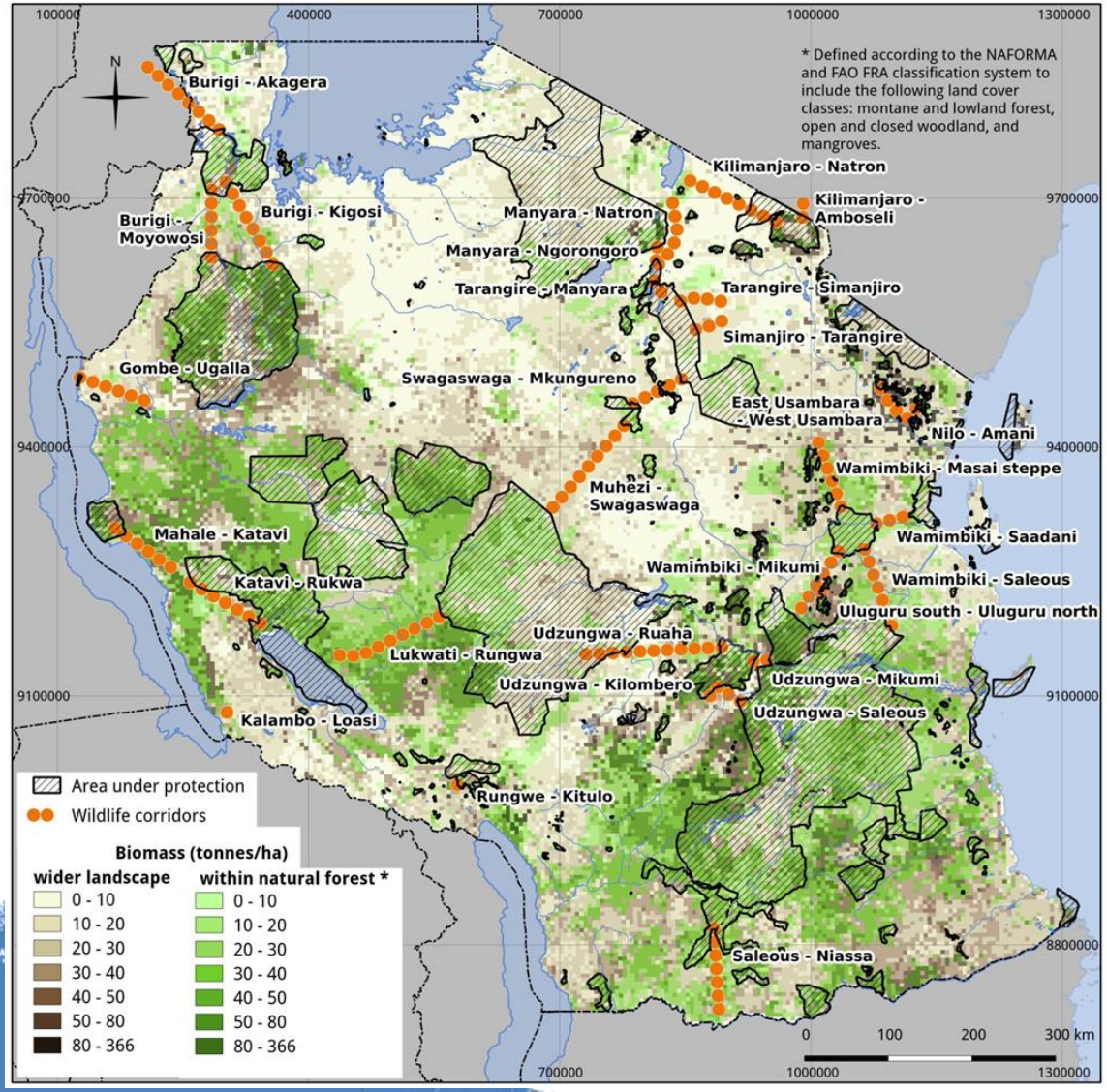
B. Understand drivers of deforestation and degradation

Current oil and gas exploration licenses, applications and open acreage in Tanzania, with carbon and natural forests



C. Identify potential multiple benefits for REDD+

Important wildlife corridors, protected areas, natural forest and woody biomass carbon in Tanzania



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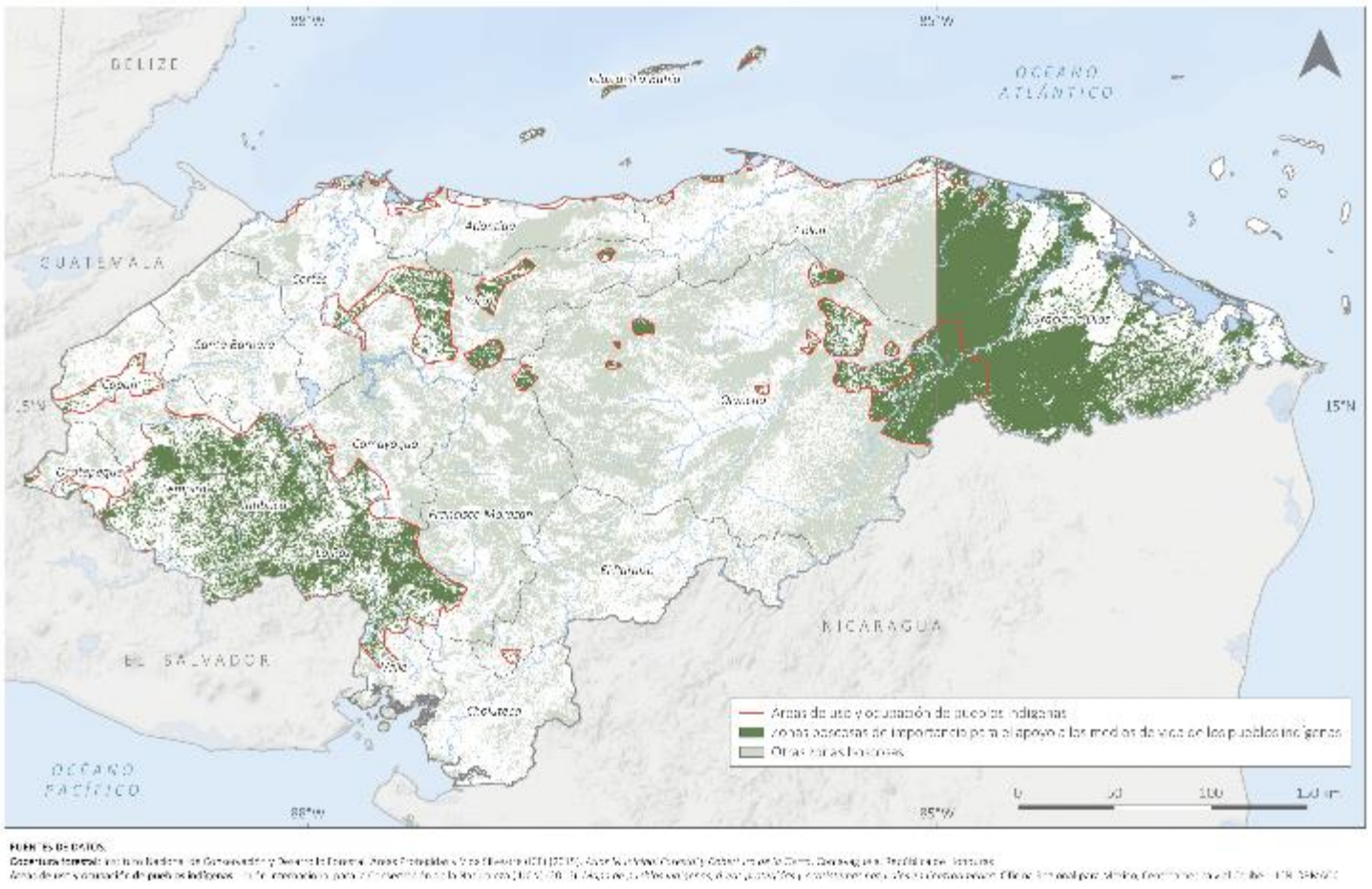
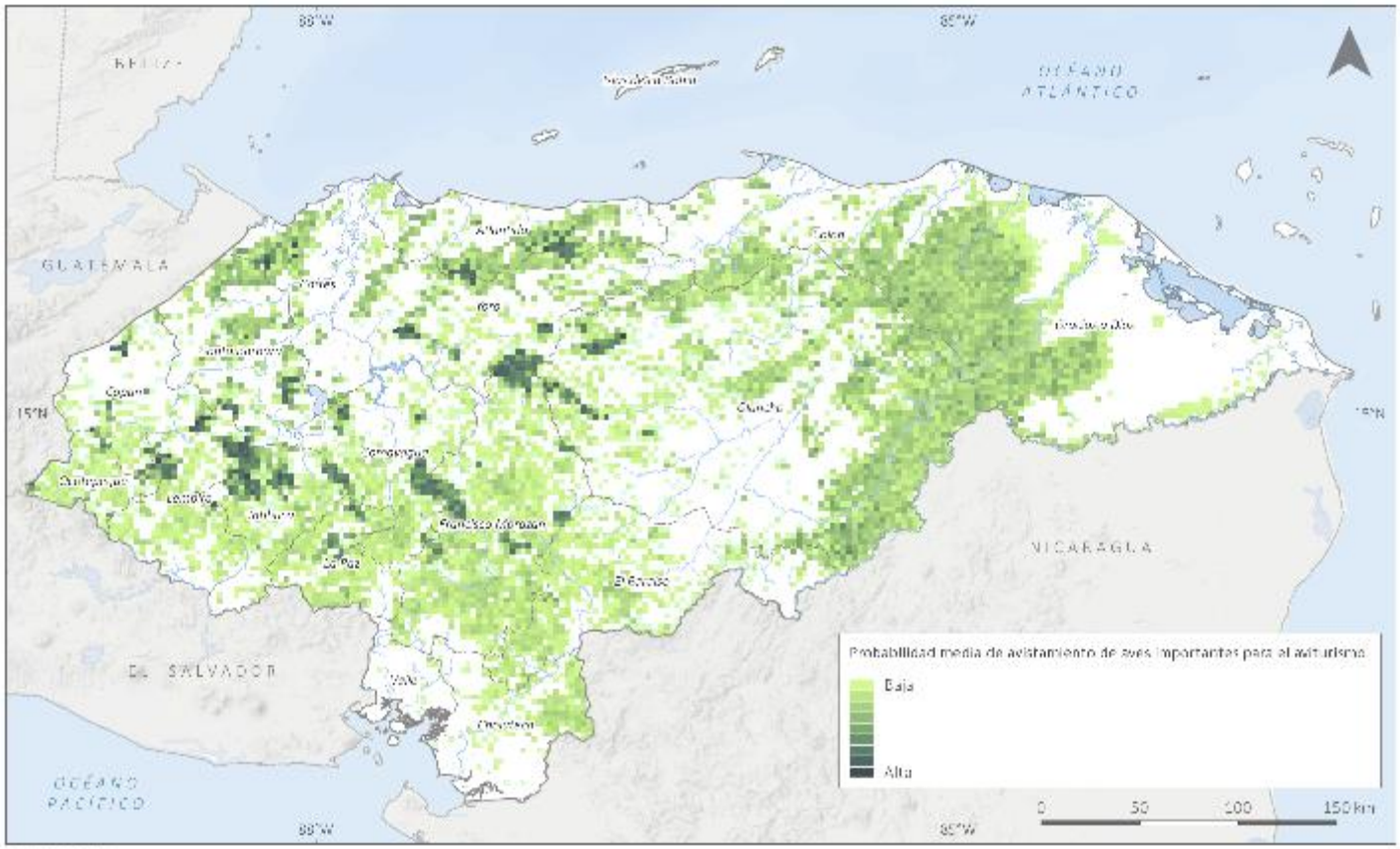


Forested areas important for the livelihoods of indigenous communities (Honduras)

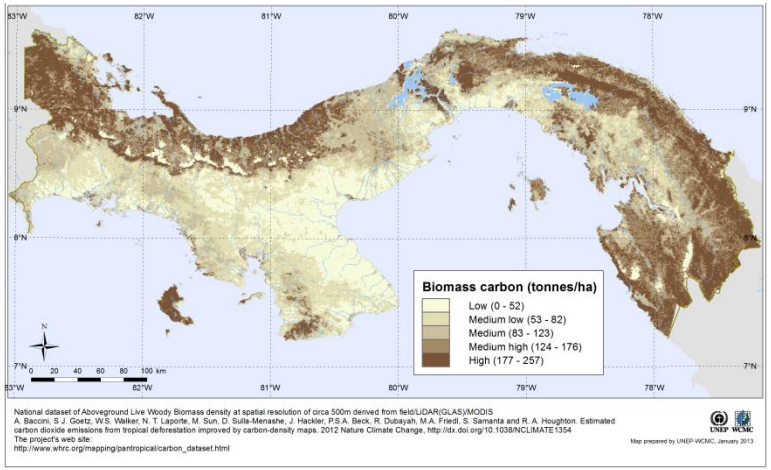
C. Identify potential multiple benefits for REDD+



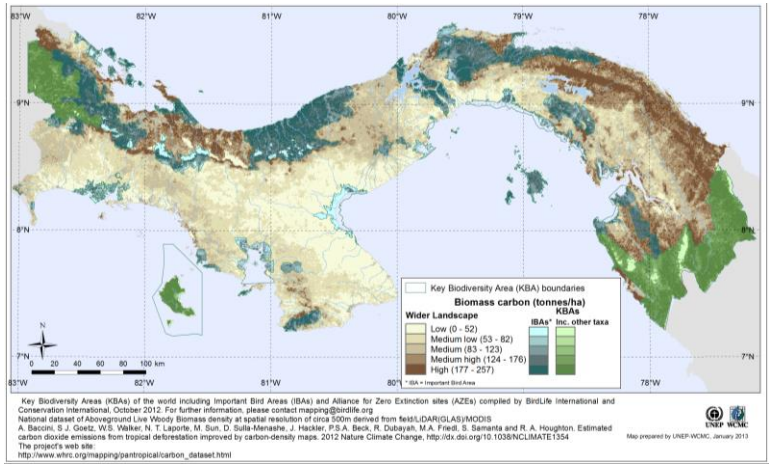
Potential for nature-based tourism (mean occurrence probability of birdwatching relevant species) in Honduras

Benefits vary geographically: Case study Panama

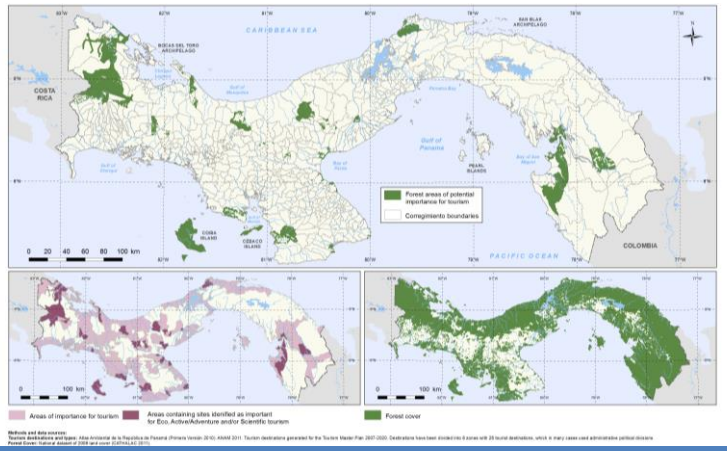
Biomass carbon stocks



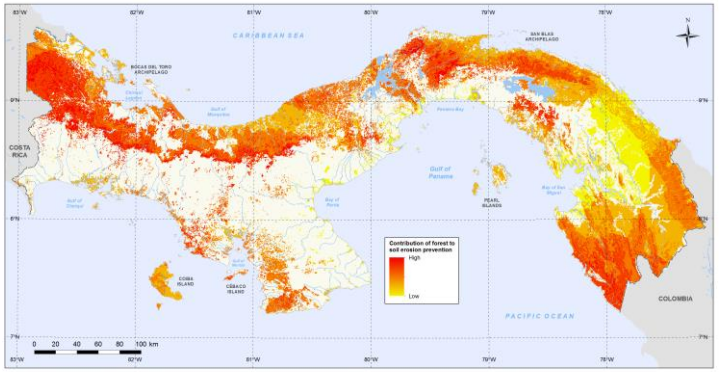
Importance for biodiversity



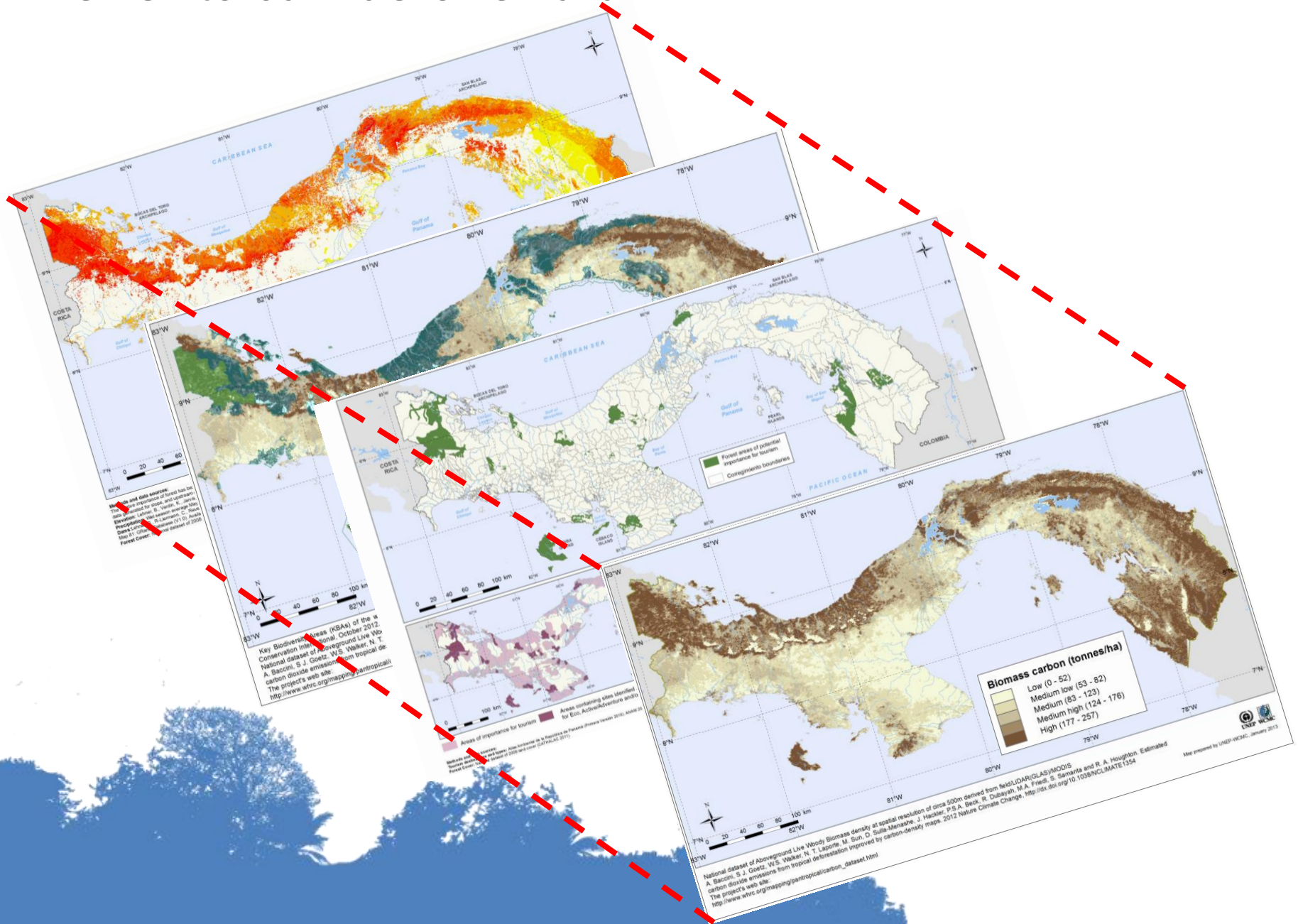
Importance for tourism



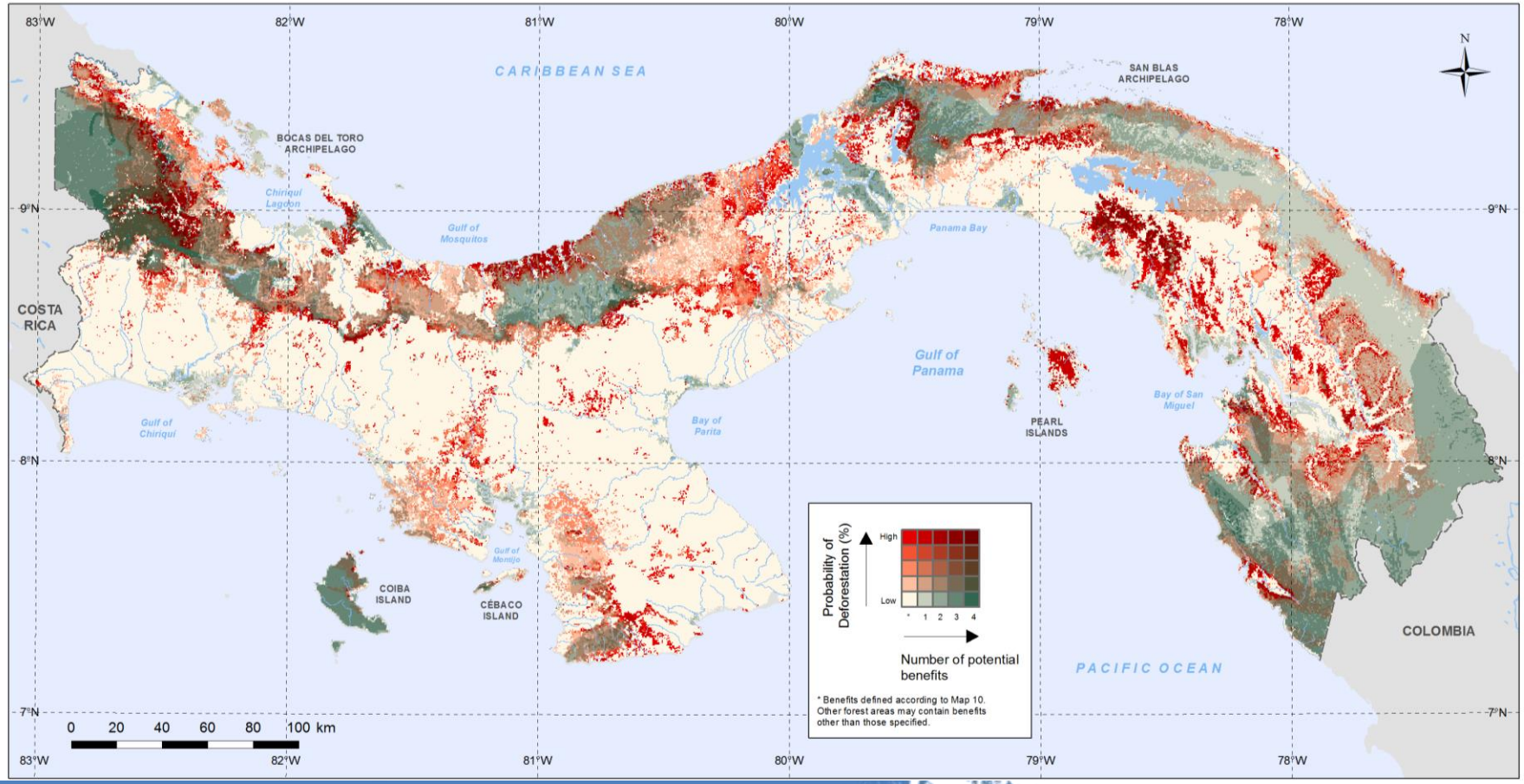
Importance for soil erosion control



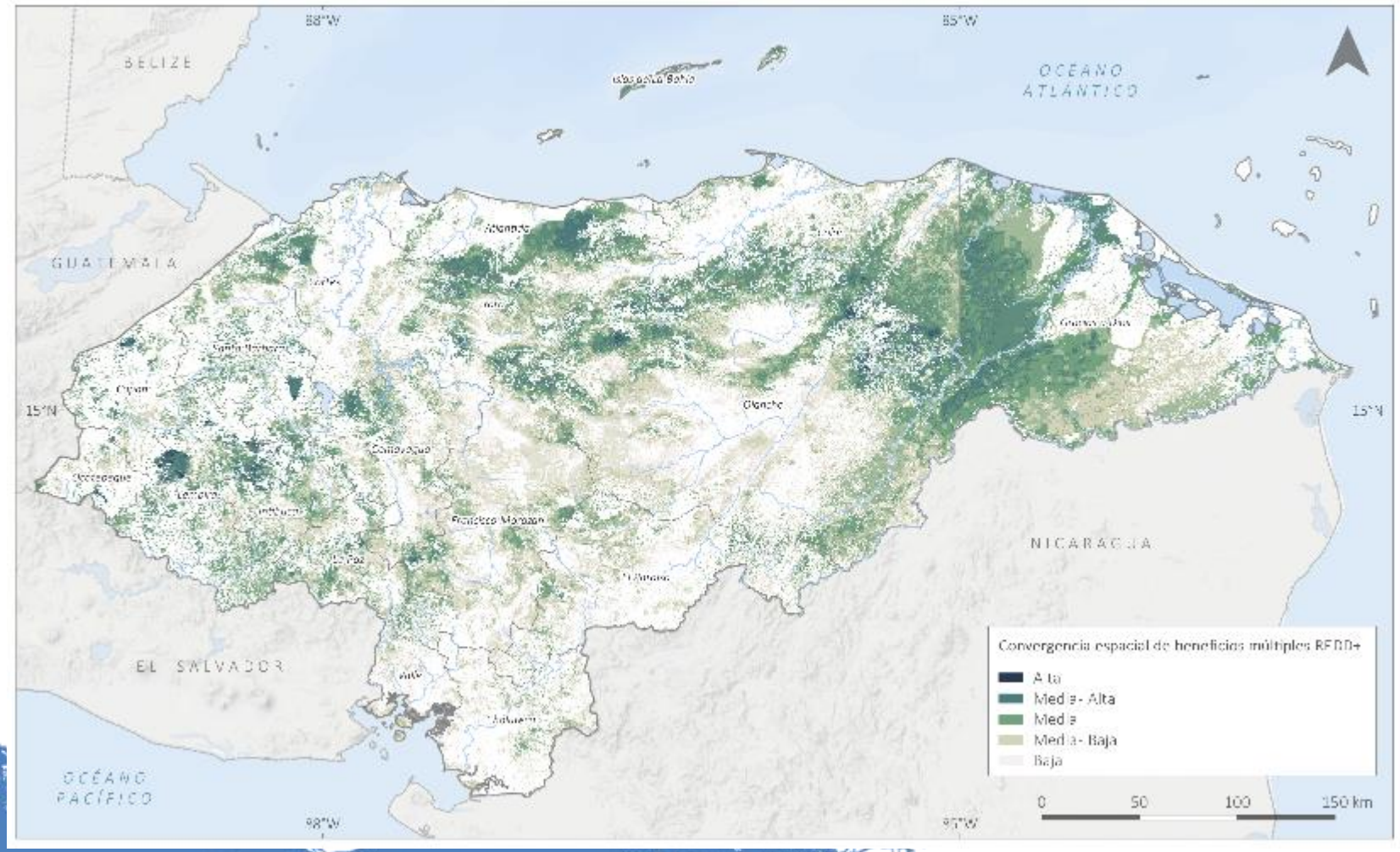
Benefits can be overlaid



Forested areas in Panama of potential importance for benefits and at risk of deforestation



Spatial congruence of potential REDD+ benefits in Honduras



Workflow: spatial analysis and REDD+

Identification and prioritization of key potential REDD social and environmental benefits in the country (workshops), as well as drivers of deforestation and degradation

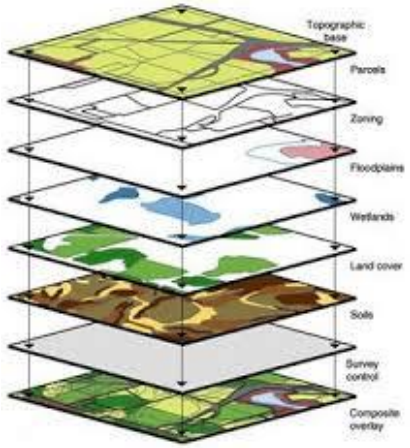
Data collection and methodology development for the mapping of benefits and drivers identified

Phase 3

Execution of analysis for identification of priority areas for provision of identified benefits (workshops)

Phase 4

Results of analysis ready to be used as inputs for the implementation of the National REDD+ strategy



Phase 2

Review background information on key environmental policy strategy documents and its links to National REDD+ strategy

Phase 1

Summary

- Spatial analysis provides **decision support** for REDD+ planning, among other tools and approaches
- Spatial analysis can help plan for REDD+ that is **feasible, enhances potential benefits, reduces potential risks and minimizes costs**
- Spatial analysis can also help planners and stakeholders to **identify suitable REDD+ actions and priority zones** for those actions
- Important to **integrate stakeholder priorities and needs** into wider consultation and planning processes for REDD+, including spatial analysis processes
- UN-REDD Programme/other initiatives provide **guidance on tools, methodologies and other resources** for spatial planning, and case studies from countries/states designing and implementing REDD+