

Spatial data for forest planning and REDD+

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1. Spatial analysis supporting forest planning and REDD+
2. Combining data from different sources
3. Examples from country applications
4. Tools and data for spatial analysis
5. Important considerations in using spatial analysis
6. Final remarks



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Spatial analysis as a tool for forest planning

- Land is a limited resource with different uses and pressures:
 - Urban areas and infrastructure
 - Agriculture
 - Conservation and provision of ecosystem services
- Land-use planning for REDD+ helps to assess:
 - Alternative uses
 - Realistic options for a national REDD+ strategy, and priority locations
 - Provision of intended benefits and avoid risks



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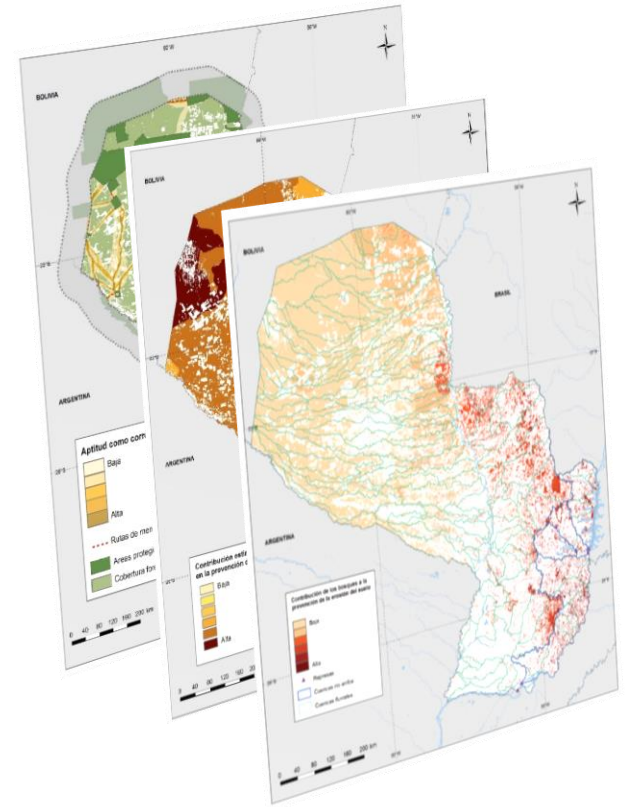
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Spatial analysis as a tool for forest planning

- Spatial analyses are:
- A strong method to identify areas where benefits converge and areas not associated to the benefits prioritised.
- Good starting point to identify factors that could influence decision-making during the planning process.
- Data compilation helps to identify what is known and what are the gaps of information.



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Spatial analysis as a tool for forest planning

Maps can be used as a **decision-support tool** for forest planning, including REDD+ helping to:

- Understand extent and distribution of forest values, pressures, risks, costs and land designations & visualize overlap between factors
- Identify feasible actions
- Opportunities to enhance benefits, reduce risks and minimize costs
- Negotiate forest- and resource-use solutions
- Develop implementation plans



@Jorge Moya



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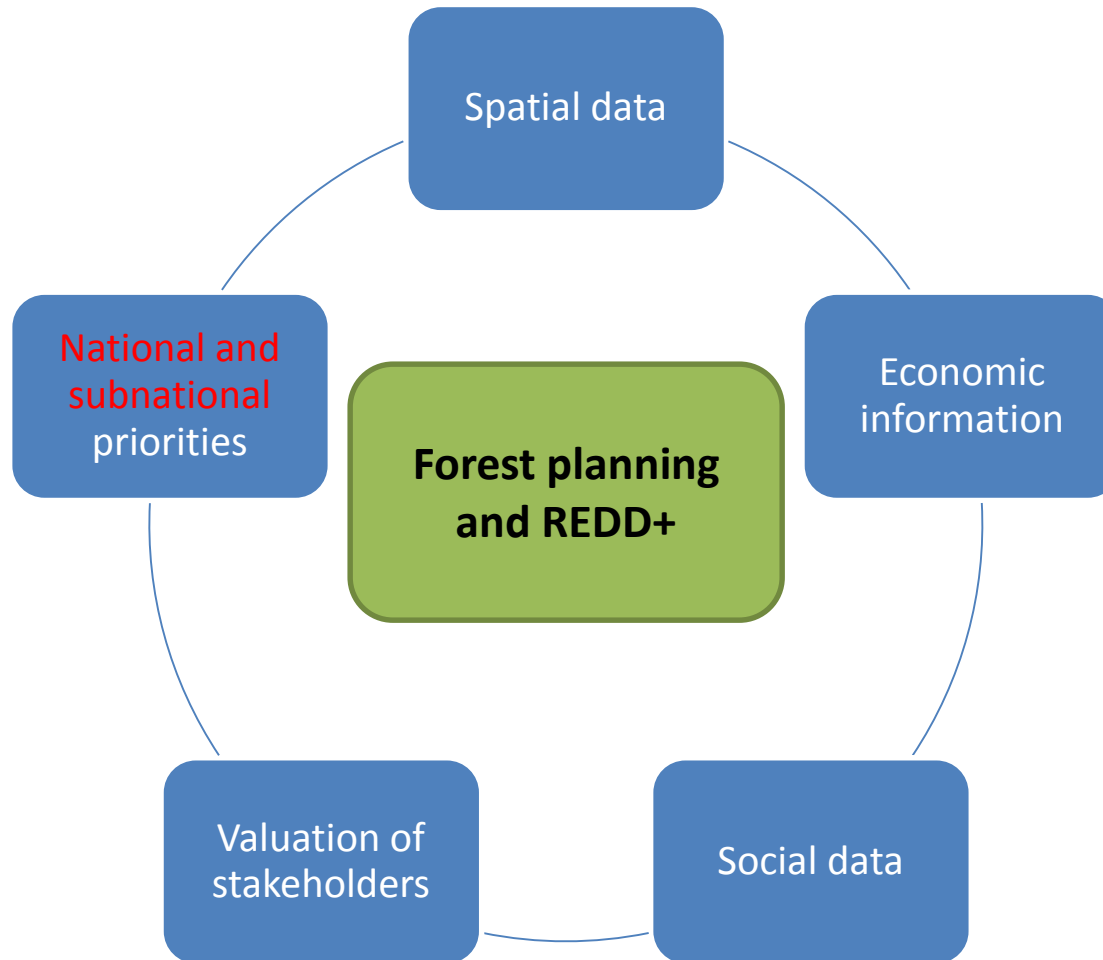


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Tools and data for spatial analysis



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Tools, tutorials and data for spatial analysis

- Various tools are available to support forest planning, including REDD+
 - Consider software and tools already being used in country for land-use and forest sector planning
- UN-REDD Programme/other publications have guidance on tools, methodologies and other resources for spatial planning, and case studies from countries designing and implementing REDD+
 - Most examples in this presentation are the result of direct mapping and GIS support from the UN-REDD Programme in collaboration with countries
- Exploring Multiple Benefits Mapping Toolbox and tutorials developed by UNEP-WCMC provide raster analysis tools to help identify, map and understand relationship between carbon stocks, ecosystem services and biodiversity



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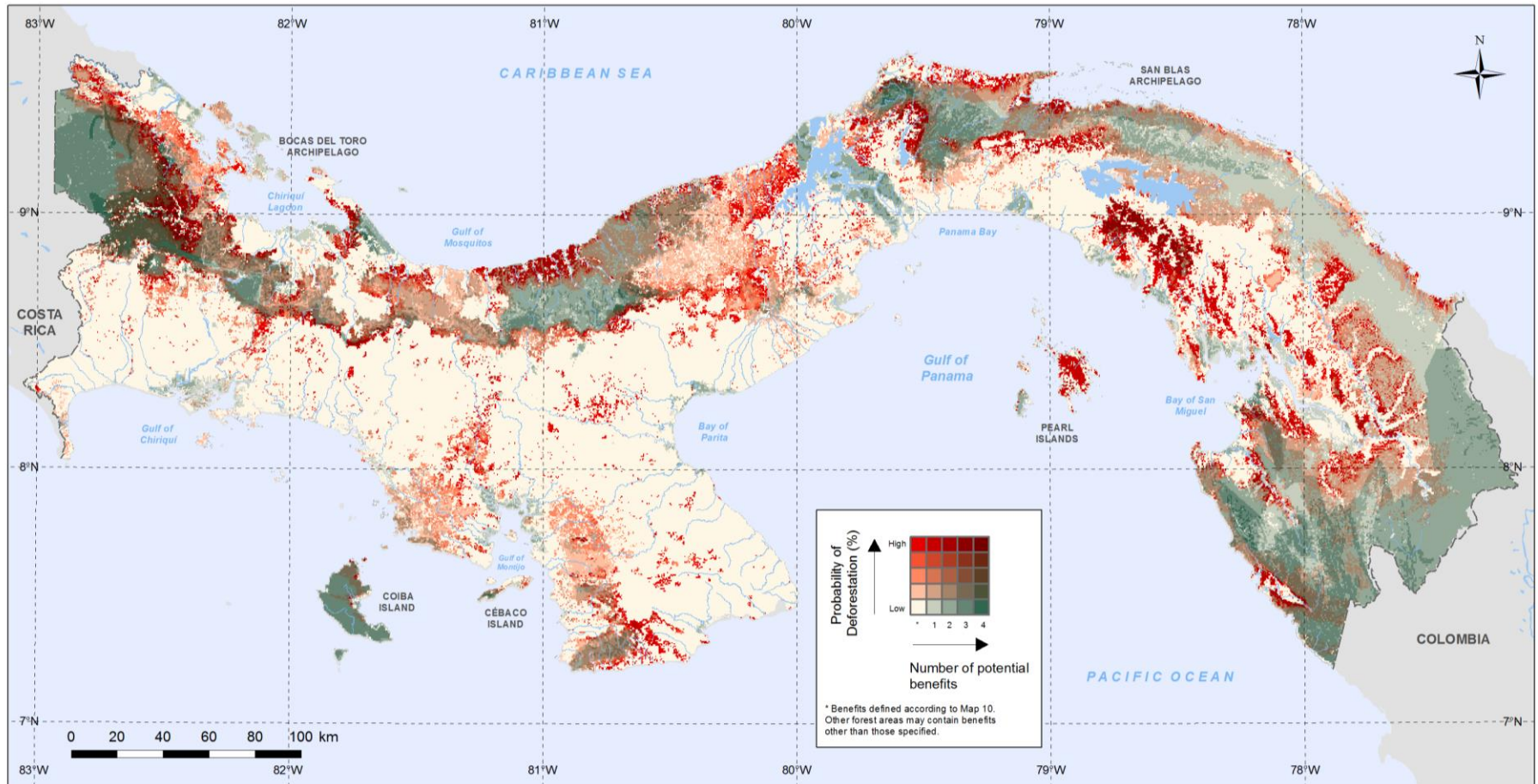
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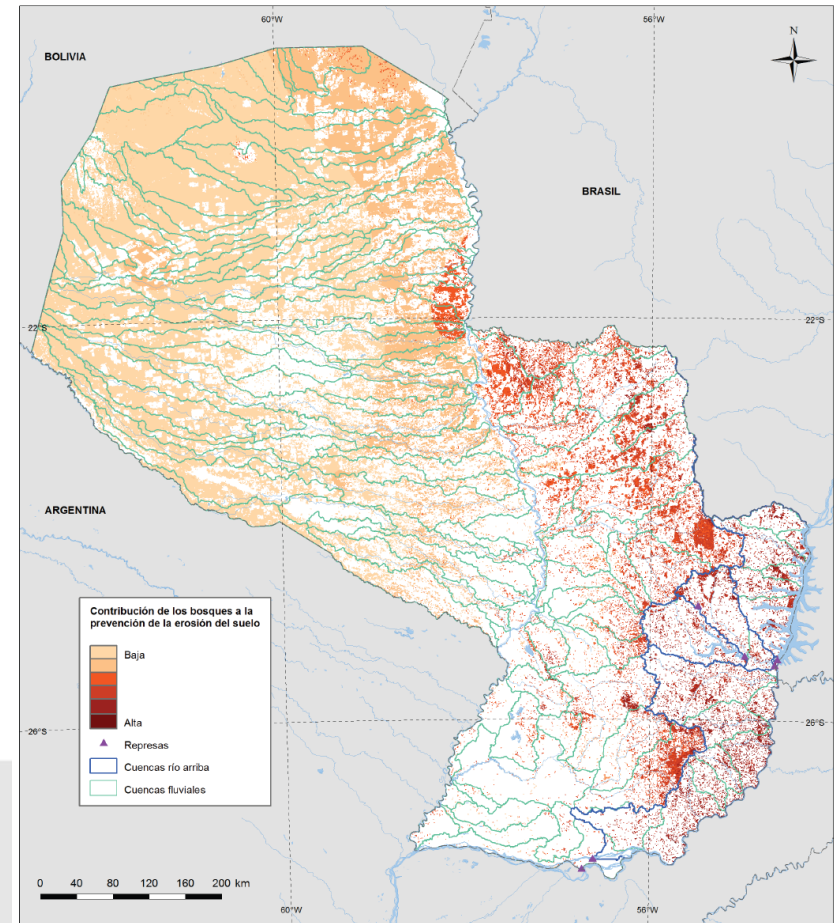
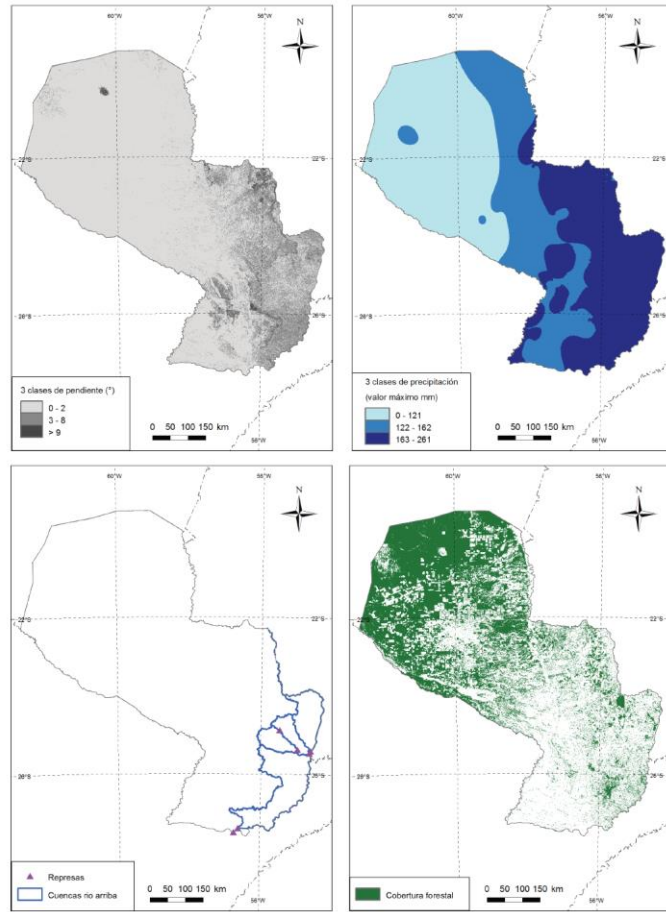
Spatial analysis as a tool for forest planning

Forested areas important for multiple benefits at risk of deforestation in Panama **MAPS DEVELOPED FOLLOWING A SIMILAR PROCESS FOR THE ONE YOU FOLLOWED T DEVELOP PRARP**



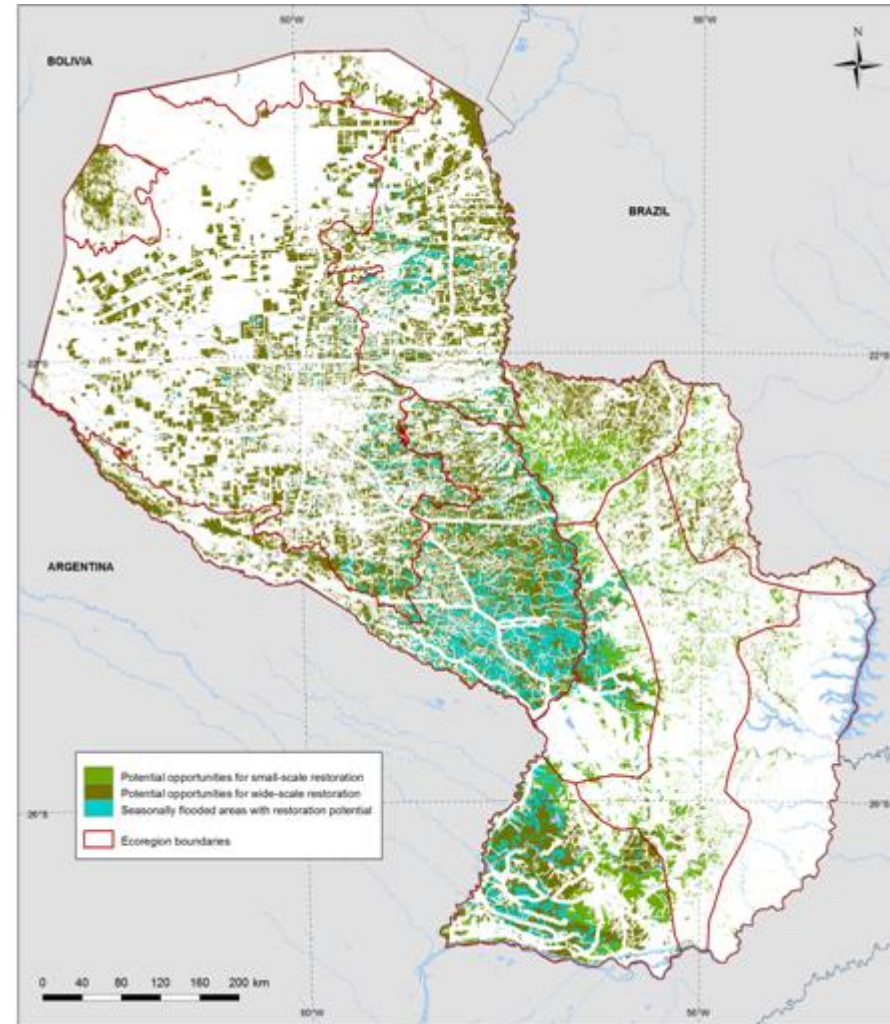
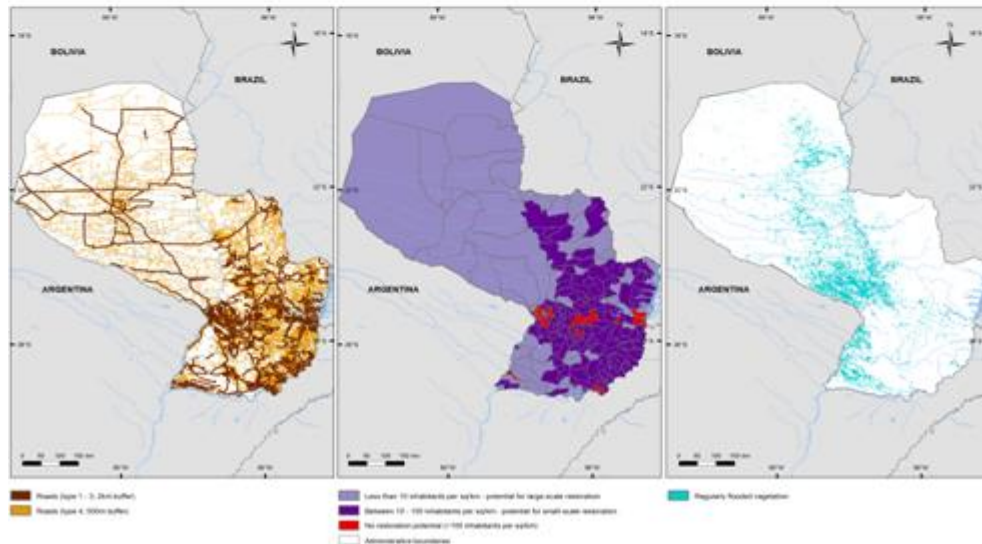
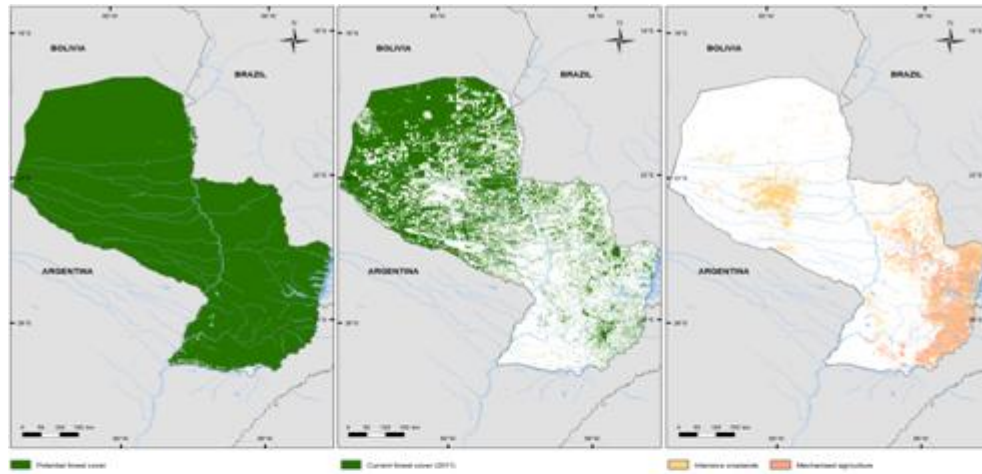
Spatial analysis as a tool for forest planning

Forested areas important for erosion control in Paraguay

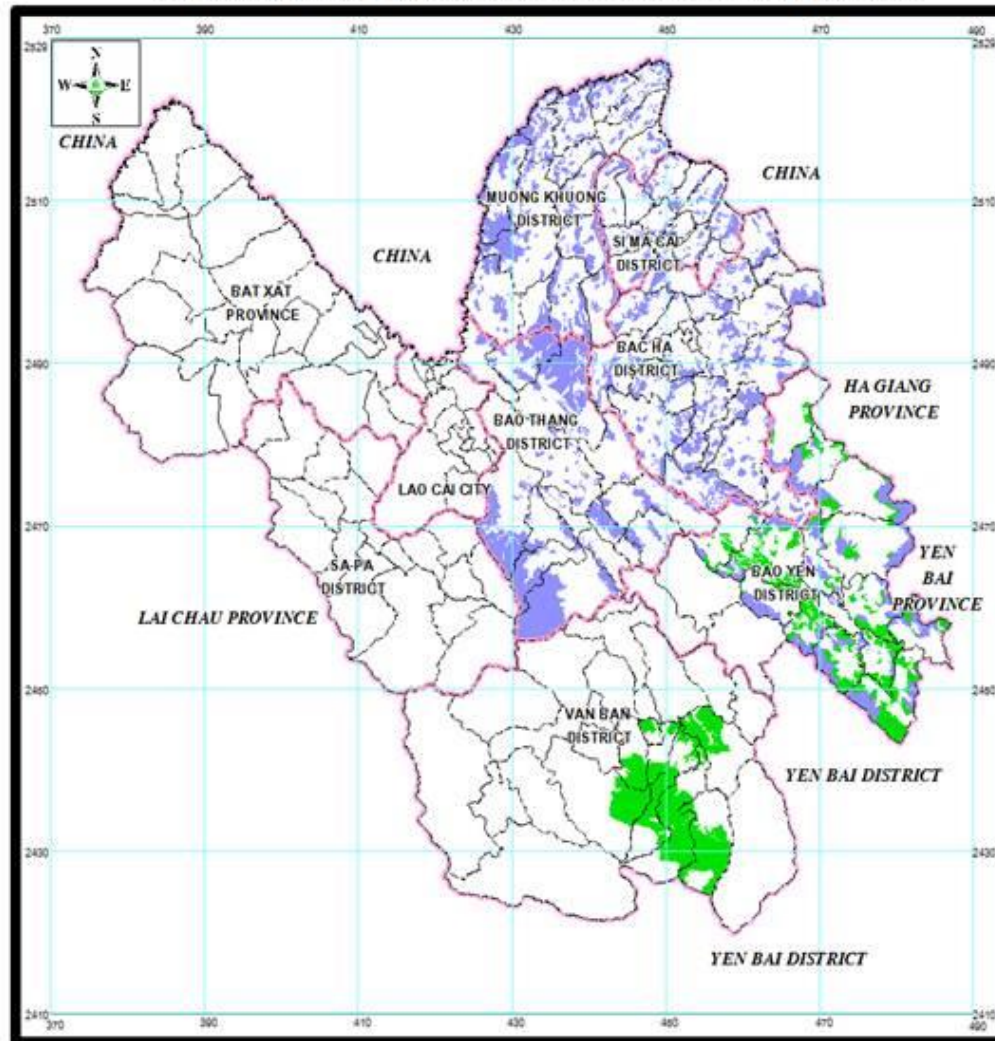


Spatial analysis as a tool for forest planning




Forest restoration opportunities in Paraguay





**THE PRIORITY AREA MAP TO IMPLEMENT SOLUTION PACKAGES
FOR SUSTAINABLE FOREST MANAGEMENT IN LAO CAI PROVINCE**



LEGEND

-  National boundary
-  Province boundary
-  District boundary

-  The Forestry Enterprise
-  The Forestry Protection Board

THE IMPLEMENT SOLUTION

1. Inventory, collecting data to build sustainable forest management plan for forestry enterprises
2. Development sustainable forest management plan aiming at issuance of forest certificate
3. Implement annual monitoring and assessment of forest resource
4. Develop forest management plan for forest management boards
5. Support Forest management Boards of protection units to implement REDD+ action plan

Important considerations in using spatial analysis

- Be clear what question each map is intended to address
- Consult thoroughly with the users of the maps
- Test the utility of the results and explore with stakeholders how they can best be delivered/presented
- Consider data availability and compatibility:
 - Scale, adequacy
 - Copyright
 - Quality and accuracy of spatial information



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Important considerations in using spatial analysis

- Decisions are taken by end-users not by the maps
- Spatial analysis needs to be integrated into participative process where stakeholders are engaged
- Not all data and/or process can be mapped



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- Spatial analysis can support forest planning, including REDD+ **AT SUBNATIONAL LEVEL**, that enhances potential benefits, reduces potential risks and minimizes costs
- Spatial analysis can inform REDD+ strategy development
 - Development of realistic options for a national REDD+ strategy – including identifying suitable REDD+ actions and priority locations for those actions – will help balance potential benefits and risks as well as costs of REDD+
 - Sub-national scale spatial analysis, informed by multi-stakeholder discussion, can help identify priority areas for REDD+ actions
 - Important to integrate stakeholder priorities and needs into wider consultation and planning processes for REDD+



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Thank You

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