

Forest Monitoring in Latin/Mesoamerica



Outline

- Increased need for monitoring
- Challenges and enabling conditions to monitoring in Latin America
- Progress in the Region
- Role of CATIE
- Final remarks

Increased need for monitoring

- Essential management (and policy) tool, not a luxury (adaptive management)
- Necessary for the evaluation of:
 - results of management/policy actions
 - impacts of drivers of change such as climate change
 - generation of knowledge in the light of chronic uncertainty
- Climate change increases the need for monitoring and to act based on its results

Increased need for monitoring

- Design and impact of mitigation activities in REDD+ and CDM frameworks
- Changes in forest composition, structure and functions/services due to climate change
- Results and impacts of land use changes and adaptation activities
- This also requires supporting research:
 - Understanding relationships between climate and forest components
 - Indicators and threshold levels

Challenges for monitoring

- Definition of indicators is crucial but often difficult (agreement)
- Agreement on acceptable changes in indicators and management actions required
- Involving decision-makers (including local actors) in the use of results
- Communication of results to interested stakeholders
- Making it part of adaptive management approaches: learning institutions (increasing uncertainty)
- Funding and human/institutional capacities

Enabling conditions in Latin America

- Improve access to more economic remote sensing options able to overcome problems related to cloud cover
- Provide better baseline data (e.g. through national forest inventories, interinstitutional/international cooperation)
- Develop methodologies to detect and measure degradation
- Improve methodologies and institutional arrangements to make monitoring part of management decisions at local, national and global scales
- Improve institutional and human capacities

Progress in Mesoamerica

- Some countries show progress in monitoring capabilities:
 - Mexico has national forest inventory and good remote sensing and GIS capacities

Map of PSP cover in Mexico
(Semarnat/CONAFOR 2010)

- Costa Rica monitoring PES and conservation



Progress in Mesoamerica

- Other countries do not have human and financial resources to follow footsteps of Mexico
- CC policies making funds available
 - Develop regional network of PSP based on gap analysis of existing PSP and organizations
 - Harmonization of protocols for PSP site selection, establishment, measurement and data management (with support from METLA)
 - Strengthen link between PSP and remote sensing
 - Involve local actors in maintenance and measurements and management/policy decisions
 - Include agroforestry systems

Role of CATIE

- Research on local effects of management and climate change
 - Over 100 PSP for evaluation of multiple natural and anthropogenic drivers of change on tropical forests
 - Monitor correlations between forest dynamic processes and climate variability; climate variability interactions with other anthropogenic drivers of change – logging, edge effects
 - Results help identify relevant indicators and methodologies as input for national and regional protocols



Role of CATIE

- Strengthening regional network:
 - Protocol development (supported by INIA Spain and CIFOR).
 - Link PSP to remote sensing and GIS and feeding into information system of Central American Commission for Environment and Development (CCAD)
- Training
 - Remote sensing and GIS tools at different scales (regional, national, local)
 - Interpretation and use of monitoring results at different scales
 - Latin American workshop on monitoring and REDD+ in Acre, Brazil, to discuss progress on monitoring and agree on minimum acceptable standard for national monitoring

Final remarks

- Monitoring should evolve to support decision-making not only for stand/landscape management, but also effectiveness of policies/institutions and impact on livelihoods (equity, poverty)
- Several projects in Mesoamerica are establishing baseline data at landscape scale
- Those territories will be used to establish pilot activities for detailed monitoring linked to regional monitoring
- National governments are strengthening their monitoring capacities to be able to respond to REDD+ monitoring needs
- There is, however, an increased need for cooperation between countries as well as improve communication and use for management and policy decisions at regional, national and local scales