

Croplands, Drylands, Grasslands, Forests

NWP, 2013 EbA workshop

What knowledge is needed on EbA for informing decision-making and implementation

QUESTION: Who at risk, what ES they depend on, how ES reduce vulnerability and how will ES change with CC and vice versa, who pays who benefits?

- **Vulnerability assessment**
 - **Baselines Information for each of ecosystem Services-**
 - State of ES ; understand dynamic system, interactivity over time and space and functions, changes in systems and feed into GIS
 - **Environmental**-changes in structure, functions and dynamics; understanding critical thresholds and species sensitivity
 - **How-High tech monitoring -satellite**, LIDAR and laser imagery, (emissions, cover etc) for forestry- need partnerships
 - **Social/Economic:** land tenure, governance; political ecology (how people make choices); food and water security, group/user dynamics, gender, marginalised groups);
 - **linkages** between ecological and social systems;
 - **Climate**- baseline historical climate and projected changes (models)
- **Impact on landuse/ES** and feedback of effect, impact on degradation, impact on people on people, ES and feedback and on climate itself
- **Future use/ planning**- desired future state; scenario planning for short, medium long term-include trade offs, narratives , brings in spatial and temporal dynamics

Tools and approaches/best practices in EbA

- Scenario mapping – narratives – short, medium and long term, develop feasible adaptation solutions
- Ecosystem and land use maps include current and future- GIS tools
- Case studies with purpose- short, visual – use for SS knowledge exchanges to make the case for non – converted and practitioners- use geospatial tools for sharing information on case studies, different languages
- Databases or knowledge platforms
 - Need partnerships to develop under NWP
- Assessment tools/toolkits with participatory actions, toolkit for development planning at municipal level, coastal systems- etc –
- Many of these tools are common across all systems
- Gathered examples: websites and tools

What we need to demonstrate effectiveness of EbA- political, economic, social, environmental...

- Economic effectiveness methodology
- To capture multiple benefits not only economics over different time horizons
- Social return of investment approach
- Natural capital accounting
- Budgetary allocations- at local municipal/national level

Challenges

- Ecosystem resilience effectiveness – hard to track
- Political mandates change – long term plans change – to track changes
- Address non climate stressors

Indicators to monitor effectiveness of EbA-

- More work needed
- Some can include:
 - Budget allocation for Ecosystem services- national and local level
 - % beneficiaries that have become more resilient

Gaps/Areas for further work to enhance understanding of methodological, technical and scientific of EbA

- Assessment data needs
- Food and water security linkages to EbA
- Guidelines for engaging different stakeholders- private sector, politicians
- Critical thresholds for ecosystems and species- sensitivity to climate in different systems (tropical systems)
- Centralised – geo spatial database for EbA
- Case studies that are visual and useful
- Ecosystem resilience effectiveness indicators, economic indicators
- Research on functions of Ecosystem services that we must maintain
- Dynamics understanding and linkages
- Capacity development- institutional /stakeholders– training of trainers- and develop readiness for implementation- vulnerable groups
- Benefits of people- socio economic impacts, tangible and intangible, short and longer term benefits
- Scenario methodology- long term and medium and short term, hard and soft options
- Document success stories and scaling up to meet challenges

Gaps/Areas for further work to enhance understanding of methodological, technical and scientific of EbA

- Assessment phase;
 - social survey methodology and valuation of social impacts, benefits
 - Impacts assessment- land use and degradation; Tools for GIS mapping of impacts and baselines
 - Ground truthing and baseline development
- Food and water security linkages to EbA
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