Synthesis

Inception workshop

Introductory notes

- The FO-AG workshop series and the project collaborative structure is illustrative of the new way of working in FAO.

- Inputs from the previous workshop included the big gaps between needs and existing data and various opportunities: i) political interest, ii) rapid development of technologies and systems, iii) potential tools integration and

- Rome promise on open ended collaborative network including the understanding of the users of drylands

Introductory notes

- The project is based on the need expressed by GEF for: standards and tools for systemic data on rangelands; processes to transfer grassroot pastoral info into legal instruments

- Importance of meet GEF deadline

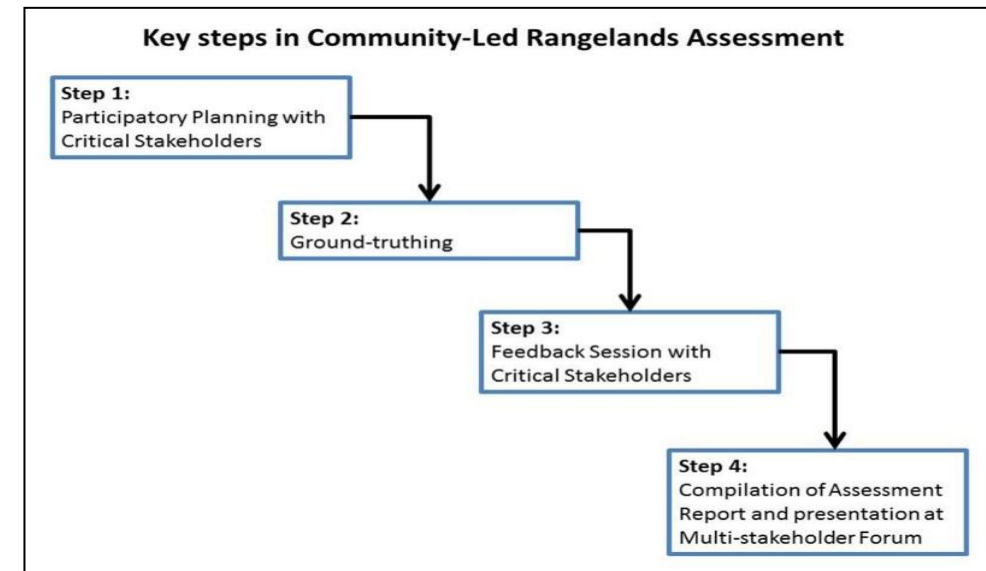- Project aiming at change in the GEF project monitoring landscape

The project

- Wants to start working before the end of the PPG through the development of a list of indicators that is tested in the countries

- Besides internal collaboration, feeds external processes such as STAP, SDG, and UNCCD

Technical contributions

- Data on livestock: Production environment descriptors for locally adapted breeds, Feed assessments, Mapping of mobility patterns, services by grassland types, value of ecosystem services

- Experiences in pastoral community led assessment (Karamojong)

- Simple 10 step guide to monitoring rangeland management, developed in Eastern Africa

1. Complete an inventory and assessment of the land
2. Define management objectives
3. Define monitoring objectives
4. Decide what to monitor
5. Decide where to monitor
6. Decide when and how often to monitor
7. Document the specific monitoring plan
8. Collect the data
9. Analyse and interpret the results
10. Learn from and act on the results

Key steps in Community-Led Rangelands Assessment

Step 1:
Participatory Planning with Critical Stakeholders

Step 2:
Ground-truthing

Step 3:
Feedback Session with Critical Stakeholders

Step 4:
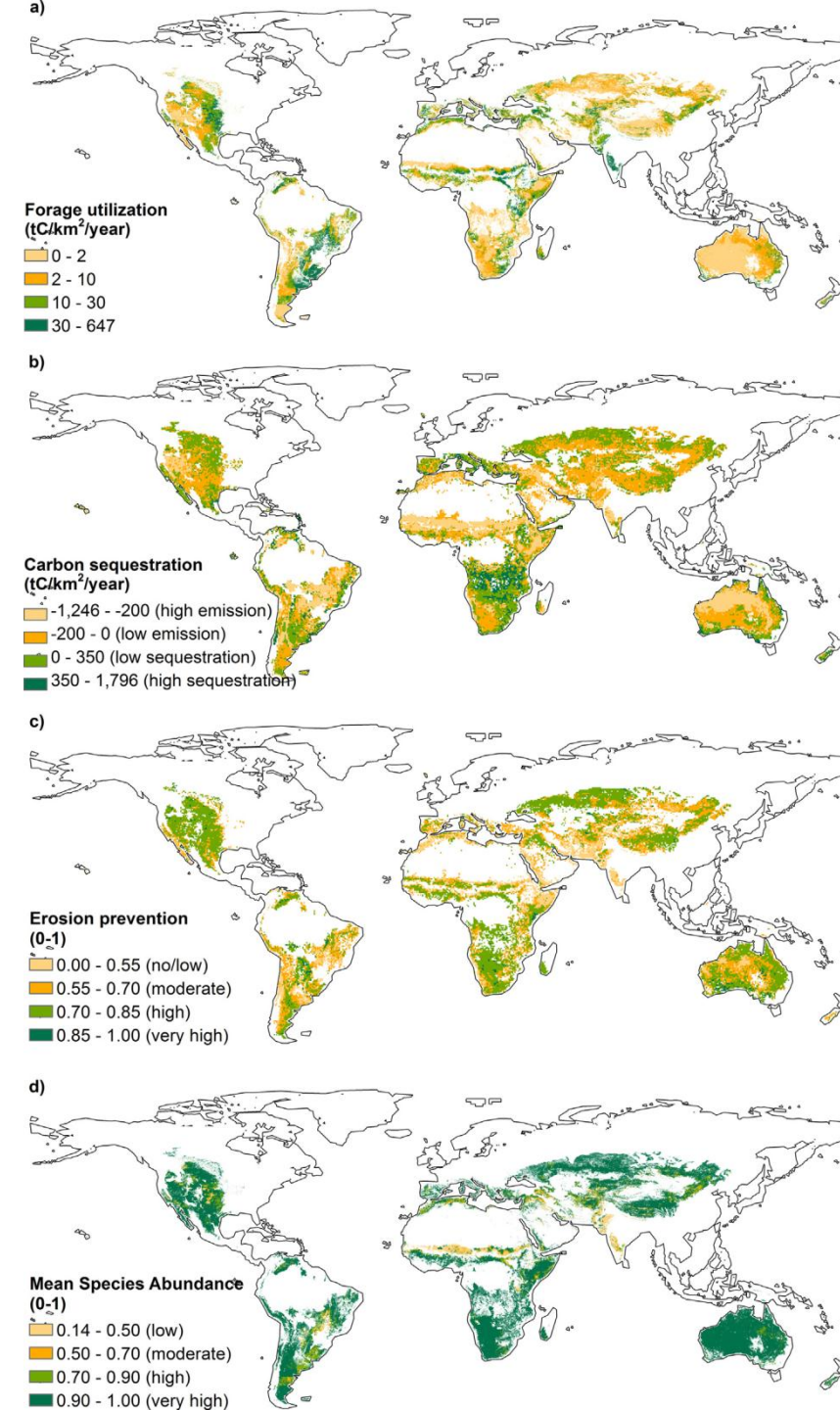Compilation of Assessment Report and presentation at Multi-stakeholder Forum

Technical contribution

- Collect Earth presentation
  - Support multi-phase National Forest Inventories
  - Land Use, Land Use Change and Forestry (LULUCF) assessments
  - Monitoring agricultural land and urban areas
  - Validation of existing maps
  - Collection of spatially explicit socio-economic data
  - Quantifying deforestation, reforestation and desertification

- Global Land Cover Network presentation
  - GLC-Share focuses in global Consultations, interviews, comments, questions, recommendation and integrates the best land cover data available (at sub-national, national, regional and global level) into one single harmonized database

  - National land resources evaluation: Implements an integrated and interactive approach to land use planning enabling assessment and modeling of land suitability and responses to potential agricultural production

  - Earth Monitoring: Monitoring of vegetation condition, and productivity, climate modeling and prediction, environmental modeling and prediction

STAP indicator system

- Quantify trade-offs and synergies between forage utilization by livestock, carbon sequestration, erosion prevention and biodiversity over the gradient of grazing intensity

- Delineate areas where grazing and livestock production are unsustainable (= ESs are impaired)

- Importance to check modelling data with ground trothing

a)

Forage utilization (tC/km²/year)
- 0 - 2
- 2 - 10
- 10 - 30
- 30 - 647

b)

Carbon sequestration (tC/km²/year)
- -1,246 - -200 (high emission)
- -200 - 0 (low emission)
- 0 - 350 (low sequestration)
- 350 - 1,796 (high sequestration)

c)

Erosion prevention (0-1)
- 0.00 - 0.55 (no/low)
- 0.55 - 0.70 (moderate)
- 0.70 - 0.85 (high)
- 0.85 - 1.00 (very high)

d)

Mean Species Abundance (0-1)
- 0.14 - 0.50 (low)
- 0.50 - 0.70 (moderate)
- 0.70 - 0.90 (high)
- 0.90 - 1.00 (very high)

STAP resilience assessment framework

A common indicator amongst the conventions to

❖Complement the UNCCD progress indicators on land cover and productivity

❖Relevant to UNFCCC as measure of land-based adaptation, and

❖the CBD as a measure of ecosystem resilience

Resilience to multiple influences on land degradation:

Population demographic pressures

Climate variability

Climate change

Ecological constraints

Health risks

Shifting social norms and governance arrangements

Changing socio-economic conditions

| General resilience Indicator	Rationale and assumptions	Potential sources of information on levels and trends
Ecosystem diversity and productivity of native vegetation rangelands	Natural ecosystem enhances this agroecosystem's general resilience, and degradation trends are eroding that general resilience	Remote sensing, field measurements
Connectivity of transhumance routes	Loss of options for seasonal transhumance places more pressure on rangelands in the wet season, so reducing quality forage productivity and so general resilience	Household surveys, land use maps
Seasonal migration opportunities	Options to for dry-season migration relieve pressure on household food stores and bring in additional household income	Household surveys
Participation in farmer-led institutions	Farmer empowerment (for men and women) is a key way to strengthen the sharing of conceptual models (between farmers, and between farmers, researchers and development agencies), learning and experimentation, so building general resilience.	Household and institutional surveys, statistics on membership of associations and political parties
Human Development Indicators and Gender Inequality Indices	These indicators are extremely poor at present, and improvements would indicate some lifting of human and social capital, which is a necessary underpinning for general resilience	UNDP, access to education, health, communication services
Capital reserves (per capita)	Human, natural, social and built capital reserves all build options, and so general resilience	National accounts, availability of insurance, banking, grain stores, livestock census
Institutions governing access to shared	Good stewardship of shared resources increases general resilience	Household surveys, National laws, local policies

SHARP

- Household level priorities identified;
- Resilience of different participants compared;
- Resilience scores for different groups compared;
- Priorities at community level established.

Indicator	What to look for
1. Socially self-organized	Farmers and consumers are able to organize into grassroots networks and institutions such a co-ops, farmer's markets, community sustainability associations, community gardens, an advisory networks
2. Ecologically self-regulated	Farms maintain plant cover and incorporate more perennials, provide habitat for predators an parasitoids, use ecosystem engineers, and align production with local ecological parameters
3. Appropriately connected	Collaborating with multiple suppliers, outlets, and fellow farmers; crops planted in polyculture that encourage symbiosis and mutualism
4. Functional and response diversity	Heterogeneity of features within the landscape and on the farm; diversity of inputs, outputs income sources, markets, pest controls, etc.
5. Optimally redundant	Planting multiple varieties of crops rather than one, keeping equipment for various crops getting nutrients from multiple sources, capturing water from multiple sources
6. Spatial and temporal heterogeneity	Patchiness on the farm and across the landscape, mosaic pattern of managed and unmanage land, diverse cultivation practices, crop rotations
7. Exposed to disturbance	Pest management that allows a certain controlled amount of invasion followed by selection o plants that fared well and exhibit signs of resistance
8. Coupled with local natural capital	Builds (does not deplete) soil organic matter, recharges water, little need to import nutrients o export waste
9. Reflective and shared learning	Extension and advisory services for farmers; collaboration between universities, researc centres, and farmers; cooperation and knowledge sharing between farmers; record keeping baseline knowledge about the state of the agro-ecosystem
10. Globally autonomous and locally interdependent	Less reliance on commodity markets and reduced external inputs; more sales to local markets reliance on local resources; existence of farmer co-ops, close relationships between produce and consumer, and shared resources such as equipment
11. Honours legacy	Maintenance of heirloom seeds and engagement of elders, incorporation of tradition cultivation techniques with modern knowledge
12. Builds human capital	Investment in infrastructure and institutions for the education of children and adults, suppor for social events in farming communities, programs for preservation of local knowledge
13. Reasonably profitable	Farmers and farm workers earn a liveable wage; agriculture sector does not rely o distortionary subsidies

DPSIR

- Simple
- Human-environment interlinkages.
- Multi-stakeholders
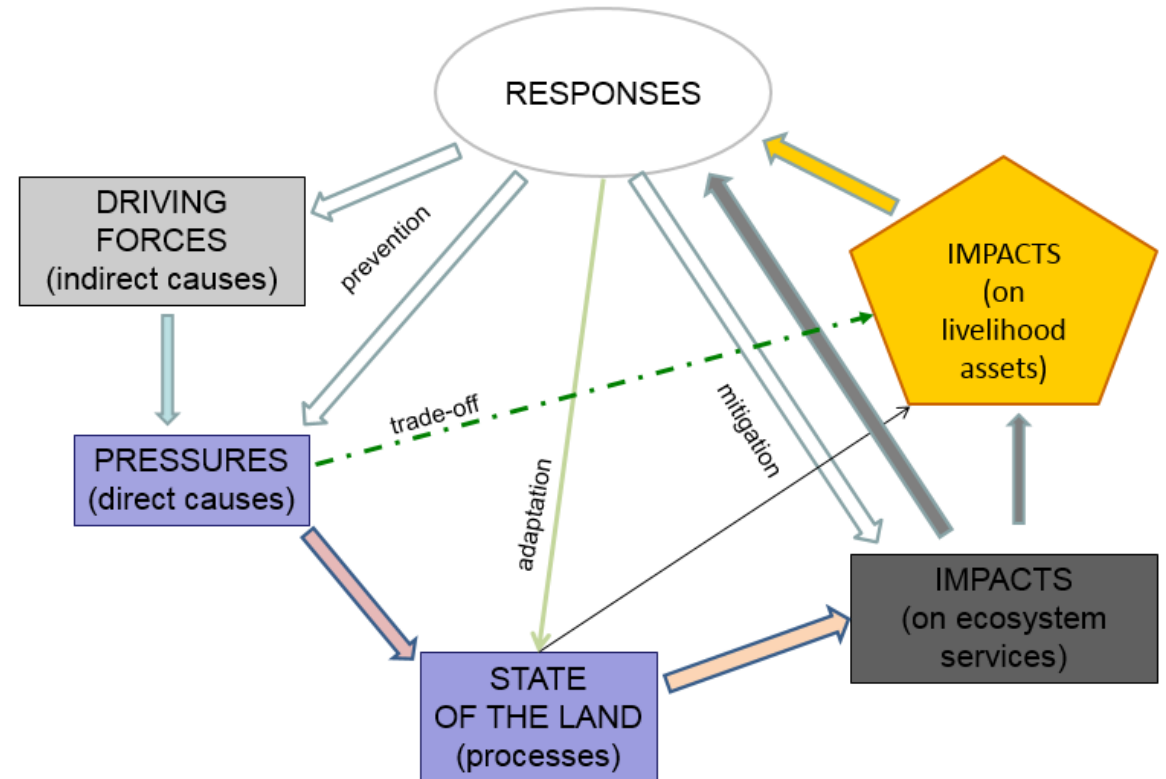
Relevant networks and hubs

- Pastoral Knowledge Hub: Bringing the voice of pastoralist to influence National / regional / global policy. Include identification and analysis of gaps (including policy and data gaps) and policy revision

- Mountain Partnership: a UN voluntary alliance promoting alliances and raising political attention for improving the livelihoods of mountain pastoralists

Discussion in most appropriate indicators and project pilot areas

- Focusing on gaps of data might end up in having new tools that are not used (Lennart)
- Focused on defining domains for indicators
- On the status of LD: focus on disappearing species besides standard biophysical indicators
- Analysis of SLM providing good and services that are relevant for pastoralism at multiple scales
- Focused on Potential pastoral indicators for promoting social change

- Presentation of the pilots from the GGW (Burkina and Niger)