Degraded forests and landscapes rehabilitation initiatives in Ethiopia: Progress and gaps

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1. Background

1.1 Context

- Ethiopia is mountainous country and most of the highlands are degraded
- It is being affected by the effects of climate variability and change
- A rapidly growing population of over 90 million (over 80% rural) continues to depend on agriculture (smallholder crop and livestock farming)
- Most (over 15 million HHs) live on the highlands where farm sizes are shrinking (average being less than 0.5ha/HH)
- Agricultural expansion and fuelwood extraction are major drivers of deforestation and forest degradation, respectively
- The Government of Ethiopia began efforts to undertake massive landscape restoration efforts as of the 1980s.
- In 2011, Ethiopia announced its CRGE Strategy where forestry is identified as one of the four pillars of the green economy to be built
1. Background

1.2 National Initiatives

• In 2014, it pledged to rehabilitate 15 million hectares of degraded lands and 7 m ha forests by 2025 as part of the Bonn Challenge

• Building forestry institutions (MEFCC, EEFRI) and revising the law

• Major stated led rehabilitation initiatives are
  – PFM – to reduce D&D in state owned natural forests by actively engaging communities (so far over a million ha put under PFM)
  – Area exclosures – to rehabilitate millions of ha of communally owned degraded hillsides & grazing lands
  – Rehabilitating critical watersheds (MERET, SLMP) & supporting food insecure HHs (PSNP, HABP,..)
  – Mass mobilisation of tens of millions of HHs annually for SWC work and for annual tree planting campaigns (free labour)

• But information on performance and good practices for scaling up forest and landscape rehabilitation experiences remains limited
1.3. Targets in the 2016-2020 NDP

• Demarcate and protect 5 m ha of protective forests mainly around dams
• Putting 2 m ha of natural forests under PFM
• Identification and demarcation of 4.5 m ha for afforestation/reforestation
• Raising seedlings of about 4 billion per year

• Doing so is assumed to contribute to:
  – 5-10% increase in the contribution of forestry to household income
  – Making employment opportunities for 1 m people
  – Increasing national forests cover by 4.5% (from 15.5% to 20%)
1.4. Challenges

Yet the challenges remain:

• Poverty and landlessness in rural areas
• Ambitious targets for food and export crops production and for restoration (15 m ha) but limited info and capacity on how to manage the trade-offs at landscape level between agriculture and conservation objectives
• Institutional challenges (federal-regional links, cross sectoral/ministerial links) - e.g. national flagship programs under MoA with little links to FLR
• National land use plan and official forest/forest land definitions are lacking
• Farmers’ own tree planting initiatives are hardly supported by the govt.
• Little information on good practices in rehabilitation practices and conditions for scaling them up

➔ How can we /research help the government to achieve its targets?
➔ By identifying & scaling up effective forest rehabilitation practices
    ➔ Focusing on area exclosures and on PFM
I the highland areas where land is individually managed, tenure and participation of communities in decision making matter!
2. The study, 2013-15

2.1. Study Objectives:

(i) to identify effective experiences in rehabilitating degraded forests and landscapes and improvement measures to maximize their livelihoods and ecological benefits

(ii) to identify enabling conditions for scaling up these practices with proposed improvement measures, and

(iii) to develop scaling up strategy document for five regional states and the federal ministry for scaling up selected management practices.

How? By involving federal and regional institutions of forestry research and extension, forest enterprises as well as universities
2.2. The Process followed

Team establishment
Review of literature
Identify criteria & indicators
Develop questionnaires

Consultative meeting in regional capital involving key actors to: (i) refine criteria and indicators for selection, and (ii) identify key practices/sites

Evaluate candidate practices using agreed procedure based on the criteria and indicators, and select effective practices

Assess ecological and socioeconomic impacts of the selected practices

Identify improvement measures to enhance livelihood and conservation benefits and conduct ex-ante evaluation

Identify enabling conditions for scaling up effective practices

Develop regional strategy to scale up the best practices in the selected regions

Develop a national road map to scale up selected practices in the country

Figure 1. Schematic diagram of the processes involved in developing the national road map for scaling up effective forest management practices (Adapted from Tolera et al 2015).
3. Main findings
3.1 Area exclosures

- Exclosures are areas socially fenced from cutting, grazing and other agricultural activities with the goal of promoting natural regeneration of plants and rehabilitating formerly degraded lands.
- The government considers area exclosures as successful that could be scaled up widely in most parts of the country.
- But effective practices in area exclosure and conditions to scaling them were poorly understood.
- The study showed that:
  - Both experts and communities have positive views on ecological outcomes of exclosures – (enhance availability of water, animal feed and wood, and sequester more carbon up to 246 t of carbon/ha) but much lower than expected benefits.
  - Planning and monitoring tools are lacking to assess gains (biodiversity for example).
  - Poorly defined tenure and net benefit sharing arrangements lead to conflicts.
  - Have worries about their sustainability due to tenure insecurity.
Atsbi woreda kalamin tabia Buhole watershed
3.1 Area exclosures (Contd.)

- Main improvement measures proposed to enhance success are:
  - Addressing uncertainties in ownership/tenure and use rights
  - Empowering communities to actively engage in negotiating and jointly articulating objectives of exclosures (mainly protection, production, or both) and developing corresponding management plans to maintain continued interest and engagement of communities
  - Planting economically important species to increase returns, and SWC work to improve survival rates and growth rates of seedlings
  - Supporting the development, refinement and endorsement of community bylaws. The bylaws for a particular exclosure should be closely aligned with the objectives defined at the outset.
  - Clearly defined equitable responsibility and net benefit sharing mechanisms (between the state & communities on one hand and among community members on the other)
  - Building capacity to managing conflicts and promote equity among community members
3.2. Participatory forest management

- PFM is seen as a means to reduce D&D in natural forests and to engage communities in the management and use of these state forests.
- Though PFM was initiated in the mid-1990s, experiences have not been systematically examined to identify good practices and limitations.
- Team of experts developed the following criteria & indicators to identify effective practices:
  
  (i) degree of participation and level of empowerment,
  
  (ii) institutional and organization set up of PFM,
  
  (iii) impacts on livelihoods,
  
  (iv) Impacts on the forest resource,
  
  (v) equity & protection of interests of disadvantaged groups & women
  
  (vi) nature and effectiveness of conflict resolution mechanisms.
3.2. PFM (Contd.)

• The team concluded that
  – PFM reduced D&D in forested areas under PFM, but little information exists about leakage and their importance
  – Benefits to communities remain limited due to legal impediments to use natural forests for wood/timber production
  – sustainability was questioned due to limited incentives

• The recommendations of the research team in scaling up PFM are:
  – allocating sufficient time and resources to actively engage smallholders in the process
  – Promote equitable power sharing in decision-making between communities and the government (experts)
  – Create incentive mechanisms for better forest outcomes (e.g. increase in area of forest cover, reduction of forest degradation, extent of forest regeneration, etc.)
3.2. PFM (Contd.)

- Be as inclusive as possible to have representation of important interest groups (e.g. gender) and consider interests of non-members
- Empower local communities to influence the objectives of PFM and means of achieving outcomes including forest demarcation
- Also focus on livelihood outcomes in setting PFM objectives, and make sure that the forest management plan contributes to maximizing economic gains for communities from managing forests
- Continuously assess the impact of PFM on all local stakeholders and plan to mitigate negative impacts on non-members if any
- Integrate forest management and utilization activities with other HH income sources to maximize PFM impacts on livelihoods
- Engaging the state to revise the forest law regarding wood products extraction from natural forests
4. Conclusions

- Ethiopia is engaged in major FLR initiatives but needs to be supported to make these undertakings knowledge-based and sustainable.
- Both area exclosure & PFM are major landscape rehabilitation strategies.
- Both face common challenges (e.g. land scarcity, tenure, productivity, ...).
- Unclear ownership & use rights undermine sustained engagement.
- Negotiating multiple objectives of FR and developing management plans to achieving these objectives is needed to continue active involvement of local communities and authorities in FLR.
- Increasing total productivity of rehabilitated landscapes to make them economically competitive with other land uses is critical.
- Devising fair & clear responsibility and benefit sharing mechanisms is key.
- Addressing those challenges helps improve livelihoods and conservation outcomes of FLR strategies.
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Thank you!