



Resilience of communal grasslands in the Ethiopian highlands: Integrating gender and social learning

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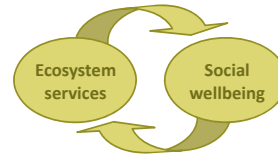
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Why social-ecological resilience?

Sustainable flow of ecosystem services is a challenge

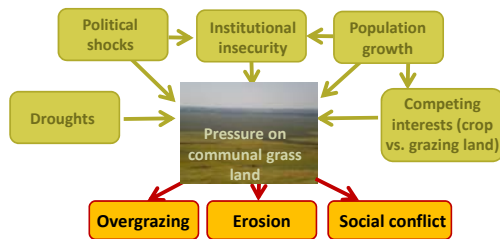


- Cope with social change
 - Demographic growth
 - Radical political shifts
- Understand how communities...
 - ... perceive changes
 - ... learn
 - ... adapt practices

Resilience = ability to cope with change and adapt



Need to cope with changes

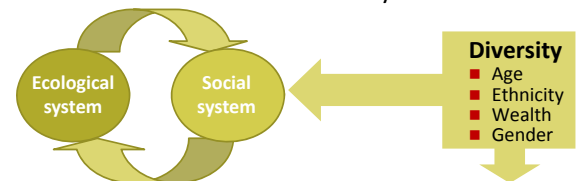


Despite this, some communities have ensured a sustainable management of their communal grassland



Diversity: ecological and social

- Diversity plays an important role in resilience
- Yet ecological diversity emphasised, little attention to social diversity



Leads to difference in roles and knowledge about natural resources



Why gender?

Men & women have...

- ... different social roles
- ... different preferences for the use of natural resources
- ... different knowledge about natural resources
- Power relation
 - Control over the resources (cattle)
 - In the decision-making processes (use of pasture)



Research questions

- Which mechanisms and institutional structures have enabled effective responses to changes?
 - How shocks and stresses are perceived by the community?
 - How community has ensured social learning?
- What is the impact of gender roles on resilience?
 - Are there gender disparities in needs & knowledge?
 - Are women's needs & knowledge taken into account?
 - If not: what impact does it have on the pasture?
- Why do farmers prefer rotational grazing, while the experts promote the cut-and-carry system?
 - How do farmers and experts perceive the two systems?
 - What impacts do the two systems have on benefit sharing (men and women; poor and rich)?



A case study

- Bure: Amhara region
- Crop-livestock mixed farming

- Communal pasture plays a key role
- Ensures feed for oxen and dairy cows

Case selection: 'positive deviant'

- Criteria-based
- Five steps followed
- Stakeholders participated
- Willingness of community

- 12/23 kebeles assessed
- 5 kebeles compared
- 2 kebeles selected:
 - Wundgi: Rotational grazing
 - Wangedam: Cut-and-carry

Qualitative data collection

Focus group discussions:

- Core group
- Management group
- Men-only & women only

14 focus group discussions held

Key informant interviews

- 14 experts:
 - Office of Agriculture
 - Land administration office

38 interviews with community members

Participatory tools

- Community resource map
- Seasonal feed calendar
- Proportional pilling

- Wealth ranking
- Pair-wise ranking
- Division of labour (men, women, children)


Participant observation

- Site selection
- Management meetings
- During cattle grazing

Reflection meetings

- Community
- Experts : Bure district
- Project staff: ILRI & CGIAR

Data analysis: Qualitative




- **Rapid analysis**
 - Information gap
 - Quick results
- **Content analysis**
 - Using Atlas Ti software
- **Comparative analysis**
 - SWOT
 - Two controlled systems
 - Men & women

Mechanisms enhanced community resilience

- Leadership**
 - Elders
 - Social memories
 - Trust
 - Coordination
 - Social network
 - Incentives
 - Participation
 - Social network
 - Sharing information
 - Institutional memories
 - Social network
 - Social memories
- Informal institution**
 - Collective action
 - Observation
 - Adaptation
 - Coordination
 - Sharing information
 - Interaction
 - Negotiation
 - Knowledge integration
 - Support
 - Experimentation
 - Social learning
- Interaction capacity**
 - Interaction
 - Conflict resolution
 - Coordination

Kuwalla(wundgi): Fostered resilience



1974 Feudal to Communist Land tenure change Peasant association

1990 Collapse of producer cooperatives

Haile Selassie regime	Derg regime	EPRDF 1991 to date
Fallow land Forest area Crop-aftermath Communal pasture	Crop-aftermath Communal pasture	Crop aftermath Crop residue Communal pasture
Controlled grazing system	Free grazing system	Rotational grazing system


Social learning



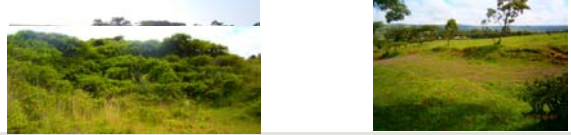
- Community coped with policy shift
- Ensured sustainable use of the pasture over 25 years
- Three factors played a key role:
 - Capacity of traditional leaders: recognize window of opportunity for change
 - Establishment of an informal institution
 - Effective interaction of community with external officials




Traditional leaders



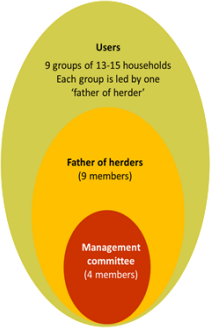
- **Stepped forward: Convinced the community**
 - Seized a window of opportunity : collapse of cooperative
 - Free grazing = overuse = soil degradation = erosion
 - Tried an enclosure: designed rotational grazing system
- **Used their authority experiences to mobilize community**
 - Had influential positions and knowledge




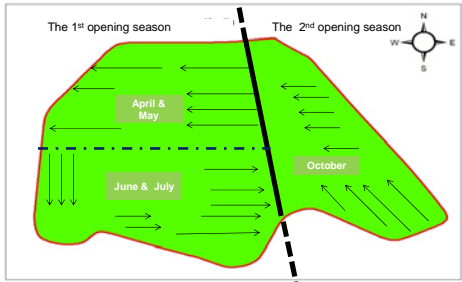
Established an informal institution




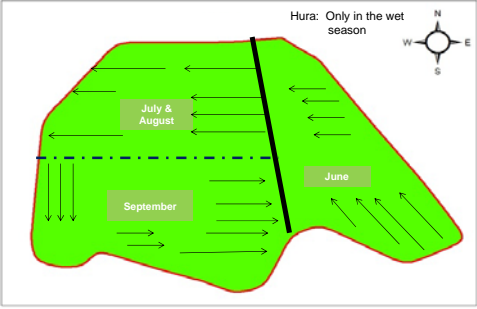
- **Governs the access and use right of the pasture**
 - Priority is given for oxen
 - Followed by cows
- **Monitors rules-in-use**
 - Kello: protect from illegal use
 - Guide the rotation of the grazing
- **Designs management practices**
 - Defines closing & opening seasons
 - Hura: manuring the pasture
 - Using local knowledge



Rotational grazing

Soil fertility management


Hura: Only in the wet season

July & August


September

June

Interaction with officials



- Safeguarded the autonomy of community
 - Enable own social learning processes
- Officials supported rule-enforcement
 - Exclusion of people from other villages
 - Support punishment in case of rule-violation



New challenge: Gender



- Women excluded from informal institution
 - Management committee (men only)
 - Traditional 'father of herders'




Users
9 groups of 13-15 households
Each group is led by one 'father of herder'

Father of herders
(9 members)

Management committee
(4 members)

Women's preferences are overlooked


Impact: rules are undermined




- Women need grass for *Sifet*
- Have to steal it: are not allowed to harvest them



Reduces quality of pasture



- Women need grass for *Sifet*'
- *Elusine floccifolia* is becoming dominant (not palatable)
- **Limits the capacity to cope with changes**



Suboptimal use of resources



- Oxen are privileged over dairy cows
 - Protein-rich feed, even outside the ploughing seasons
- Fewer dairy products for family
- Lower income from milk



Legitimacy is undermined



- The rules set by the informal institution are questioned by poor (women)
- Indirect support for external experts who aim to replace rotational grazing by cut-and-carry



Conclusions: Social resilience



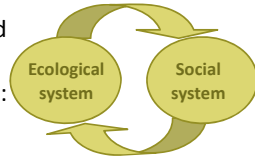
- Decisions taken at community level have ensured sustainable use of pasture & social learning
 - Build on farmers' traditional knowledge & capacity
- Empowering community is a must
 - Encourage transparent and accountable leadership
 - Enhance social learning through local institutions
- Inclusion of women is important too
 - Include their needs → strengthen the adaptive capacity
 - Ensure the legitimacy of institutions and sustainability
 - Enhance social justice
- Require the shift from top-down extension to participatory and co-management approach



Implications: SE-Resilience



- Sustainable management communal pasture is possible if the management is
 - Compatible & adaptable with the current **social** and **ecological** conditions
 - Adaptable to the future changes and challenges
- Not searching for optimal solution to one problem
- But an ongoing learning and negotiation process
- Change in the social system: need to be responded



Acknowledgements



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- Family



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Danke schön!

www.wiso.boku.ac.at/afo/forschung/ethiopia-resilience/