Improving Community Livelihoods Through Soil and Water Conservation

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Communities in Ebinat district, located within South Gondar zone, Amhara region in Northern Ethiopia have diversified their economic livelihoods through soil and water conservation efforts. They have spearheaded the restoration of the ecosystem to increase their communities’ resilience to weather-related hazards.

For decades, the 250,000 Ebinat community members, located 700 km from Addis Ababa in Ethiopia’s wet lowland area, have primarily engaged in subsistence agriculture for their livelihood. However, these livelihoods have declined tremendously due to their sensitivity to weather shocks. Rainfall has become very unpredictable and unevenly distributed, with recurrent and prolonged droughts. The once forested hillsides have also been depleted with trees cut down and used for construction materials, household firewood, and commercial forest products. The expansion of farmland coupled with minimal reforestation programmes has also contributed to increased vulnerability to climate extremes.

Vulnerability and Capacity Assessment (VCA) checklist:

- Training facilitators
- Vulnerability Assessment
- Capacity Assessment
- Data Analysis
- Community Action Planning
In 2012, the Partners for Resilience (PfR) programme through Ethiopia Red Cross Society (ERCS) facilitated the Vulnerability and Capacity Assessments (VCA) in Worgaja, Woberoch and Tarasamba divisions within Ebinat district. Through the Vulnerability and Capacity Assessments (VCA), which incorporated climate and ecosystems issues into the disaster risks, the communities identified the major hazards as recurrent drought and flash floods and environmental degradation. Poor crop and livestock productivity were identified as key factors to the local communities’ vulnerability. Subsequently, Community Action Plans were developed with support from PfR and ERCS. The Community Action Plans prioritized soil and water conservation practices for improved crop production and animal husbandry to address their vulnerabilities.

A total of 364 hectares of the most commonly used and highly degraded hillsides in seven community watersheds were conserved using hillside terraces and other soil and moisture harvesting measures such as constructing micro-basins, eyebrow basins and check dams to complement the on-going Ethiopian government’s Green Development efforts. The soil and moisture harvesting structures were enriched with biological measures such as planting multi-purpose tree species to increase the biomass and improve the damaged ecosystem.

Interventions to optimally utilize the conserved areas for improving the communities’ livelihoods were introduced. We established and trained four Watershed Management Committees comprised of 10 members (4 female and 6 men) each, totalling 40. The committees were responsible for the overall management of the watershed. This entailed identification of the watershed, supervision of construction, and monitoring to ensure sustainability of the conserved areas. The committee drafted, passed and enacted by-laws to protect the conserved areas. Poor resource farmers who allowed their livestock to graze within the conserved areas paid punitive fines (100 ETB per animal). The committees were also responsible for ensuring fair distribution of forage among beneficiaries, monitoring the overall ecosystem progress and reporting to the district development partners.
The Watershed Management Committees also conserved the protected areas from encroachment by communities living outside the watershed. Using the cut-and-carry system of hay production within the conserved areas, the small farmers shared the forage for their livestock. This ensured that livestock productivity improved, at the same time maintaining the regeneration of quality pastures. The hay production was managed by the Watershed Committee as a legal entity.

The regeneration of indigenous vegetation such as palatable grasses, bushes and trees in addition to planted seedlings resulted in a tremendous increase of vegetation cover on the managed hillsides. The ecosystem is gradually being restored through community efforts. There was evidence of wildlife (monkeys, antelopes, birds, etc.) returning to the conserved areas. This created a potential for eco-tourism. The effort the community made changed the fragile ecosystem into a healthy and fully functioning one.

Beekeeping was also an innovative way of utilizing the gradually regenerating ecosystem. Unemployed youth were identified by the Community Based Disaster Risk Reduction Committee (CBDRR) and allocated a portion of the conserved area ideal for beekeeping, with technical support of district apiculture experts.

In 2013, about 78 youths were trained on apiculture and were each provided with two modern beehives and bee colonies in order to increase and sustain the beekeeping business. The bees harvested nectar from flowers within the flourishing conserved area.

In 2014, the youth beneficiaries harvested 4,886 kg from 156 modern and 102 traditional hives. The honey was sold at 70 ETB per kg, earning a total of 34,202 ETB. On average, it is projected that each youth will produce honey worth 4,385 ETB per year, thereby significantly increasing their household’s income.
The conserved areas provide an economic opportunity for the previously unemployed youths to earn an income, while conserving the environment against encroachment. Through PfR and ERCS, these youth have improved their livelihoods. Yohannes, 25, a youth leader in the beekeeper project said, "The PfR program is responding to the economic needs of unemployed and landless youth. I am a member of both the watershed committee and beekeepers group. I have acquired the knowledge and skills of bee keeping. My youth group are now well conscious of how conserved ecosystems can generate additional incomes and become a major source of livelihood."

The honey production by the youth and the hay production improved livelihood options for the most-at-risk groups affected by the recurrent droughts. Moreover, sustainability of the conservation efforts is optimized with the protection of the regenerating ecosystem. The multiple benefits of soil and water conservation in degraded areas of Ebinat are incentives for other communities to adopt these measures and so this project can function as learning grounds for a scale-up to the neighbouring districts.

Communities in the vicinity of the conserved areas also benefitted from collecting forage and receiving wage labour during the construction of conservation structures. About 750 participants received wage labour while developing the ecosystem as a community asset. The farmland located downstream of the conserved hillsides were protected from flooding and soil erosion, thus resolving previous conflicts among neighbouring communities.

Lessons learned

- The restoration of the ecosystem has become a source of livelihood improvement for the Ebinat community. Through hay production the livestock productivity has increased, resulting in higher household incomes.

- Incorporating Vulnerability and Capacity Assessments with climate change issues provides an effective tool for gathering information and data for planning climate-smart community-based initiatives.