

Evaluation of Climate Lighthouse Projects in Ethiopia and Indonesia

Conducted for Brot für die Welt & Diakonie Katastrophenhilfe
between September 2019 and March 2020



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Anonymous Summary
of Synthesis Results

May 2020

Background

In 2008, Diakonie Katastrophenhilfe (Diakonie Emergency Aid) and Brot für die Welt (Bread for the World) developed the so-called Climate Lighthouse Concept, which had two mutually reinforcing strands: the implementation of individual climate projects (Lighthouse Projects, LHP) in Bangladesh, Ethiopia, Guatemala and Indonesia, modelled on a unified approach, as well as a learning process aimed at strengthening the two organisations and their partners' capacities for climate-related work.

This summary presents the main synthesis results of three individual on-site project evaluations, one in Ethiopia (where LHP operated since 2011) and two in Indonesia (where LHP operated since 2009) that were conducted between November 2019 - February 2020. In Indonesia, the evaluation included an additional climate change adaptation project with a focus on agricultural innovation, based on cooperation with universities and a farmer research approach.

The projects' direct target group were farmer communities who were particularly vulnerable to the effects of climate change. Depending on the respective project location, these included drought, flood, heavy or untimely rainfall, landslides, hail/frost, sea level rise, salt-water intrusion and/ or abrasion, as well as secondary effects such as pests and plant diseases. The projects addressed these impacts and farmer households' vulnerabilities by, inter alia, the introduction of climate-resilient crop varieties and organic agriculture as part of Climate Field Schools (CFS) and farmer research schemes, irrigation, disaster risk management, natural resource conservation and a diversification of livelihoods. Some of the projects also engaged in the mitigation of greenhouse gas emissions, e.g. through energy efficient stoves, afforestation and solar panels.

Objective and purpose

The evaluation examined the achievement of the projects' specific objectives – i.e. reducing the risks of climate change to particularly vulnerable target groups – along the OECD DAC evaluation criteria and drew recommendations for the respective partner organisations. These were documented in individual reports. A synthesis report compared the strategies and outcomes of the individual projects in order to reflect on the results of the overall Lighthouse Concept at community level and to come up with recommendations for the transfer of lessons to other community-based climate resilience projects.

Methodology

The methodological approach of the evaluation included document review and analysis of quantitative risk assessment as well as monitoring data (both provided by the projects). During field research in three project villages per project, qualitative instruments (interviews, focus group discussions, transects) were used to validate secondary and gather additional data. Self-assessment and lessons learnt workshops with the project teams and interviews with project staff, government representatives, project partners and external consultants were conducted. Triangulation of information sources guaranteed reliability of the data.

Synthesis of evaluation findings

Comparison of project strategies

All projects showed consistency between problem analysis, formulation of objectives and indicators, interventions and their (implicit) theory of change. The Ethiopian project's unique feature was a strong natural resource management approach, while both Indonesian projects included, besides an adaptation, a disaster risk reduction and a climate change mitigation component.

All projects employed measures to generate and diversify household income and assets (e.g. livestock distribution, support for vegetable and apple production, small-scale home businesses as well as skills

training) to increase beneficiaries' absorptive capacity in the face of climate related shocks that may affect their livelihoods. In all projects, these measures were mostly suitable and successful. However, in some instances, the projects still struggled to assure that the measures benefit all high-risk households. The main limiting factors were budget constraints and the difficulty to find suitable measures for low-skilled, elderly or disabled individuals.

To enable farmers to manage climate change risks and strengthen adaptive and anticipatory capacity, all projects included intensive training curricula and experiments on demonstration plots in CFS. The "hands on", practical CFS approach was well-received and successful. It raised awareness about climate change, generated skills and laid the groundwork for participants to start addressing changing conditions on their own.

In both LHP sites in Indonesia, a participatory farmer research approach intensified and extended the CFS curricula. Participants carried out simple laboratory tests for soil and organic fertilizer as well as field experiments on more resilient agricultural practices and varieties. We consider this a promising strategy to build capacities for finding solutions to the challenges of climate change in an autonomous way. The evaluation found many farmer researchers applied what they had learned through the research (new planting techniques, varieties, organic fertiliser) on their own fields.

In both countries, however, the diffusion of innovative agricultural practices and natural resource conservation activities to the wider community – within villages and beyond the direct beneficiaries – was still in its initial stage. Many of the CFS alumni and farmer researchers (in Indonesia) proactively spread their learnings to other farmers, and the resulting benefits (e.g. saving on inputs and increased yields) spoke for themselves. However, the dissemination process needs more time and should be intensified by the projects and through closer cooperation with village and higher levels of government as well as farmer groups.

All three projects implemented their activities through groups. In Ethiopia, the group approach was used more extensively. We consider this a success factor. For various project interventions, user groups or committees were established (e.g. for watershed, irrigation, vegetable cultivation etc.). Women were supported in the form of self-help groups. The groups were operating well and helped to increase the sustainability of project activities. Besides, they increased overall community resilience, as they contributed to strengthen collective action for sustainable natural resource management.

Key factors influencing project achievements

Important common factors that supported project success were the long-term presence and commitment of donors and partner organisations in the communities, the incorporation of capacity building for staff and external advice to the projects, as well as the participatory approach, with intensive involvement of beneficiaries in activity planning and design.

All project strategies were in line with the government's national adaptation strategies and related policies. Cooperation with government at different levels was generally good. In Indonesia on the one side, the extent to which project activities, especially vegetable production, were taken up in government programmes and thus beyond the project villages was impressive. The Ethiopian project on the other side still struggled with this – especially because lobbying to government agencies by NGOs has been restricted for many years.

Nonetheless, other government strategies were identified to have hindering effects on project outcomes, e.g. subsidies for liquid gas in Indonesia. Overall, tackling major infrastructural issues related to climate change, e.g. flood protection and large-scale irrigation in Indonesia, were beyond the projects' capacity and depended heavily on the government.

Additionally, despite many households showing good self-help capacities, others still relied on government assistance and lacked own initiative. Poverty in general and a lack of capacities and skills also hindered the uptake and continuation of activities.

Key factors for resilience at household and community level

As much as individual households depend on social or community capital and services to enable them to be resilient, a community depends on the capacities and actions of individuals to shape its resilience. A community's most significant features are its capacities to collectively identify problems, take decisions, act on them and allocate resources. The following table presents an analysis of the projects' contribution to household and community resilience.

Characteristics of a resilient community	Project contributions at household level	Project contributions at community level
<ul style="list-style-type: none"> Diverse and innovative economy and livelihoods 	<ul style="list-style-type: none"> Livelihood diversification contributed to increased capacity to absorb shocks. But for the poor this was limited to a one-time effect when e.g. a goat is sold in times of hardship. 	<ul style="list-style-type: none"> Diversified household economy contributed to a more diversified community economy.
<ul style="list-style-type: none"> Awareness, knowledge, skills and learning about climate change, related hazards and adaptation options 	<ul style="list-style-type: none"> By participating in CFS, farmer research scheme and/or conversation groups (Ethiopia), farmers developed individual awareness and skills. General sense of autonomy and self-reliance amongst farmers, knowing solutions and possibilities to act. Overall, successful women empowerment. 	<ul style="list-style-type: none"> While there were promising signs of adoption by other farmers (e.g. resilient crop varieties, organic fertiliser), the emergence of an actual capacity to autonomously find solutions in the face of climate change was still limited to direct beneficiaries. Women empowerment was also successful on community level.
<ul style="list-style-type: none"> Engaged and inclusive governance and decision making 	<ul style="list-style-type: none"> Groups (like CFS and conversation groups) served as a model for and strengthened informed and participatory decision making at individual level. 	<ul style="list-style-type: none"> Empowered individuals provided important experience for informed and participatory community level decision-making processes. However, there were few systemic effects, as 'resilient governance' was not directly addressed by the projects. The ability of village government to draft proposals and to advocate to high levels of government for climate related support was strengthened (incl. e.g. official recognition of village disaster teams). The awareness and ownership of the projects by the village government was high overall. However, projects remained to be considered separate from governance domain.
<ul style="list-style-type: none"> Leadership and capacity to mobilise for a change towards more resilient behaviour 	<ul style="list-style-type: none"> Further empowerment of leaders, who are considered instrumental to convey innovation to other farmers (CFS/farmer researchers). Empowerment of farmers, including many women, who were previously not considered 'leaders' but now mobilise others (potential 	<ul style="list-style-type: none"> Emergence of 'agents of change', empowered by the project, who influence the wider community. Women increasingly participate in community level activities.

	of some to become leaders in other spheres).	
<ul style="list-style-type: none"> Management of natural resources (NRM) that recognises their value and enables communities to protect, enhance, and maintain them. 	<ul style="list-style-type: none"> Farmers developed their skills for land conservation practices and compost production. 	<ul style="list-style-type: none"> The use of organic fertiliser spread across the community. Natural resource conservation activities are now undertaken by community groups through project interventions, e.g. rehabilitation of degraded/ bare land by construction of terraces, promotion of agroforestry.
<ul style="list-style-type: none"> Community infrastructure that facilitates adaptation and is in itself resilient 	<ul style="list-style-type: none"> Targeted households benefited from small-scale water infrastructure. 	<ul style="list-style-type: none"> Larger scale water infrastructure in Ethiopia (incl. wells, irrigation, source catchments) benefitted the overall community.
<ul style="list-style-type: none"> Access to information and services 	<ul style="list-style-type: none"> Access to weather forecasts helped to preserve the harvest from unexpected heavy rain (Ethiopia). Households received early warning of landslides in Indonesia. Households gained more information, knowledge and expertise through CFS, farmer research scheme, conversation groups. 	<ul style="list-style-type: none"> Weather forecasts served whole communities in Ethiopia. Disaster teams became community asset for early warning (in some villages in Indonesia). However, information channelled through CFS/ farmer researcher scheme remained largely limited to members.
<ul style="list-style-type: none"> Internal and external social networks that provide a wider supportive environment 	<ul style="list-style-type: none"> Direct beneficiaries (i.e. CFS/research farmers) benefited from the cooperation between LHPs in Indonesia and the link with local universities, study trips etc. 	<ul style="list-style-type: none"> 'Climate model village' approach and field days on demonstration plots in Indonesia increased the visibility of project results to the outside (higher levels of government, villagers from other communities, media) A network of disaster teams was established.
<ul style="list-style-type: none"> Safety nets that support people in coping with shocks 	<ul style="list-style-type: none"> Potentially, the revolving funds for livestock and seeds – if maintained – can serve as a safety net for vulnerable households. 	<ul style="list-style-type: none"> Self-help groups which provided access to credit in Ethiopia contributed to an increase of the absorptive capacity, covering entire communities. Unfortunately, no connection with government run social security programmes was made.

Pros and cons of the LHP's assessment methodology

The unique feature of LHPs was a risk assessment, which was applied regularly in all project sites. The goal was to generate risk profiles of the communities, to identify the most vulnerable households, and to monitor project success over time (base- and endline data).

The approach was effective for determining individual households' risk levels. The projects greatly benefitted from the data for identifying beneficiaries. The assessment process raised awareness about climate change and allowed for an observation of overall change over time. It helped to build trust and credibility by providing standard eligibility criteria for interventions and an evidence base for lobbying government.

Yet, gathering the data was very resource intensive. Furthermore not all identified high-risk households did get project support. and the method cannot be considered a robust tool to monitor project impact (no randomised design, no control groups). Data quality is partly questionable due to a rush in assessment and methodological difficulties (including indicators).

Conclusions

Overall, the projects increased the resilience of targeted farmers and showed effects at community level. The capacity of farmers to absorb climate and weather related shocks increased through the diversification of assets and livelihood sources. Farmers who participated in CFS and the farmer research scheme are now better able to find suitable solutions for and thus adapt to changing climate conditions. Other farmers' adoption of their innovations can be observed but is still in its initial stages.

Recommendations for other projects

Focus on community resilience

- During planning and based on the assessment, develop a 'vision of their resilient community' together with the target community (combined with a theory of change).
- Elaborate community action plans with roles, responsibilities, and a roadmap. Define the roles of the project, village government, farmer and other community groups as well as contributions by higher levels of government for jointly achieving the common 'vision' for the community.
- Continue focusing on community-based groups/ organisations and consider the use or establishment of committees at community level with a mandate to oversee progress.

Transfer of innovation from direct beneficiaries to wider community and beyond

- Involve more capable farmers from vulnerable households in field schools in order to enable better uptake amongst households with low adaptive capacity.
- Further strengthen field school farmers for outreach to other farmers (formalise their role by government, providing them with didactic material, define outreach procedures etc.)
- Involve village government from the outset and clarify their role – and duty – in disseminating innovation.
- Use farmer research approach as a promising way to build individual (and potentially communal) capacities for autonomous adaptation.
- Work closely with agricultural extension officers and involve them in field schools.
- Identify entry points for field school approach carefully (existing groups, new 'project' groups with members from several different groups, groups per hamlet) with a view to dissemination and sustainability.
- Include advocacy to government and other communities for uptake of innovations as a strategy for more widespread uptake of resilient knowledge and practices.

Make sure to address the most vulnerable

- Consider the weak capacities of the most vulnerable, high-risk households from the outset and be prepared to come up with adjusted project interventions to meet their particular needs.

Empowerment of women

- Provide self-help groups/ saving groups with „seed money“ to strengthen them even further.
- Define women quota for activities/ groups to ensure women's participation.

Innovative and resilient practices

- Use system of revolving funds to increase coverage of vulnerable households (as a 'safety net') in the long term.

- Introduce resilient crop varieties (rice, wheat, Leguminosae, etc.) to support adaptation to changing climates.
- Promote organic and agroecological farming as a strategy for both adaptation (e.g. more resilient soils) and mitigation of greenhouse gas emissions (e.g. reducing emissions from chemical fertiliser production).
- Support the provision of livestock and vegetable production as an asset and alternative source of nutrition and livelihood in times of shock.
- Consider mitigation-adaptation as co-benefits in project design and implementation.
- Provide the farmers with tools and approaches so that they can develop solutions for adaptation by themselves, amongst others through cooperation with research institutions/ Universities and thus continuous input for innovation and ongoing research.

Measuring climate risk

- Make a (simplified) risk assessment mandatory for all projects that are potentially sensitive to climate change.
- Allow for a six months period at the beginning of projects to revise proposal (log frame, indicators) based on assessment results.
- Combine different methods for community and, if feasible, household level assessments, keeping in mind the purpose of the assessment, the specific capacities of partner organisations and the available budget.
- Besides well-being indicators, include indicators that can measure awareness, learning and skills and behaviour change.
- Jointly define risk and resilience and indicators with the communities.
- Use existing data like official census data (if quality allows) to supplement or substitute own surveys.
- Digital survey applications, like *Kobo collect*, can help to save resources.