

Oxfam Management response to the review of *Resilience in Thailand: Impact evaluation of the climate change community-based adaptation model for food security project (Effectiveness Review Series 2014/15)*

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Date:	8 October 2015	Country/Region/Campaign:	Thailand, Asia

1. The context and background of the review

As part of Oxfam Great Britain’s (OGB) Global Performance Framework (GPF), samples of mature projects are randomly selected each year and their effectiveness rigorously assessed. The ‘Development and Scaling up of a Climate Change Community-Based Adaptation Model for Food Security in Thailand’ project was selected for review in this way under the resilience thematic area.

Since 2004, Oxfam has worked with a local organisation in the country, Earth Net Foundation (ENF) to promote organic rice farming and fair trade marketing in Yasothon province.

In 2007, farmers in the province experienced the longest drought during the rainy season that made their rice yields drop significantly. Therefore, in 2008 Oxfam and ENF piloted a climate change adaptation project in which 59 farmers participated to test out an adaptation model. The project provided climate change knowledge to induce farmers to replan their rice farming, and established a small grant to encourage farmers to invest on water management system setting up granted by Oxfam Thailand. Following the successful collaborative effort between Oxfam and ENF, the project ‘*Development and Scaling up of a Climate Change Community-Based Adaptation (CC CBA) Model for Food Security in Thailand Project*’ was developed in 2011 and lasted until August 2013.

The objective of this review is to evaluate the impact of ‘*Development and Scaling up of a Climate Change Community-Based Adaptation (CC CBA) Model for Food Security in Thailand Project*’. A word of caution must be taken into account when looking at the outcome measures of this review since it is possible that project participants may have also been affected by previous interventions; the evaluation uses as a reference point 2007, the year in which ENF firstly piloted a climate change adaptation project in the area.

The project was funded by the European Union (EU). Other partner organisation that teamed up with Oxfam GB in Thailand and ENF for the implementation of the project are the Healthy Public Policy Foundation (HPPF) and Climate Change Knowledge Management (CCKM). The project was carried out in two provinces; 3 sub-districts of Yasothon in the Northeast, and 1 sub-district in Chiang Mai in the North.

The project had threes specific objectives;

1. increase resilience and adaptation capacity of small scale farmers to weather variability and climate change through the development of a self-sustainable climate change adaptation model
2. scale up the model implementation to reach new communities and to support national development of agenda on climate change adaptation and food security;
3. foster cooperation among NGOs, CBOs, scholars, local and central government and the private sector to achieve the above objectives.

Due to budgetary and time constraints, survey work was not carried out in Chiang Mai, and so the project’s work in that province is not covered by this Effectiveness Review.

This Effectiveness Review used a quasi-experimental evaluation econometric approach to assess the

impact of the project activities typically some time after implementation ended. This review covered a subset of organic rice farmers who were considered as 'pilot rice growers', that would subsequently pass on their knowledge and skills they had learned to other members of their local associations.

With this logic in mind, the Effectiveness Review planned to consider the impact of the project among these pilot farmers (direct effect of the project) and among members of other rice farming associations (to measure the spillover effect that the project objectives has had through dissemination process of project activities with the pilot growers). The sample used in the review comprised four groups in the Yasothon province, derived from the existing farmer organisations in the study sites.

Two groups were randomly assigned as intervention group (group A and group B, with group A consisting of organic rice farmers, and group B including all other rice farmers in the area) and two groups (group C and group D) assigned as comparison groups. The results of this Effectiveness Review will reflect the impact on the entire group of rice farmers (both what we will call 'pilot' and 'spill over' farmers), and also present the results for the pilot farmers separately (Group A and Group C) who were not direct project participants.

The total sample size for this review included 757 rice farmers, of which 311 were organic farmers, and 447 other members of rice cooperatives. At the analysis stage, the statistical tools of propensity-score matching and multivariate regression were used to control for household specific and baseline differences between the rice farming households surveyed in project and comparison groups, to provide additional confidence when making estimates of the project's impact.

2. Summary main findings and recommendations

Key results of this Effectiveness Review

Outcome area	Connected to project logic	Evidence of positive impact?	Comments
Improved awareness of climate change	Yes	Yes/organic farmers only	Only organic farmers who participated in the project were significantly more aware of climate change; they indicated their knowledge in climate change in nearly all three areas suggested. Organic farmers in the comparison group suggested being aware only in two areas. The difference in knowledge was found to be statistically significant.
Improved weather forecasting information	Yes	No	No evidence of project impact in this area: both intervention and comparison rice farming households were found to be comparable and not significantly different in the use of weather forecasting information.
Use of weather forecasting to plan annual rice production	Yes	No	No evidence of project impact in this area: both intervention and comparison rice farming households were found to be comparable and not significantly different in the use of weather forecasting to plan rice production.
Improved agricultural production	Yes	Mixed	Evidence of significantly higher agricultural production of fruit products for both overall and organic beneficiaries of the project production. No evidence of either higher rice or higher vegetable production.
Improved knowledge	Yes	Mixed	No evidence of change among project beneficiaries in their attitude toward farming practice, but clear positive effect of the project on water management practices.
Increased agricultural diversification	Yes	Yes	Evidence of higher number of crops cultivated by organic farmers and by CBO farmers relative to their comparison beneficiaries.

Improved revenues for selling agricultural products	No	Yes	Rice farming households in the intervention groups generated a total value of all agricultural production that was 92% higher than that of non-project beneficiaries, and their total value of rice production sold was 153% higher than that of non-project beneficiaries.
Access to credit	Yes	Yes/organic farmers only	Organic rice growers that were part of the project have access on average to nearly two sources of credit. Organic growers in the comparison group have access on average only to one source of credit. The difference is statistically significant.
Improved water management facilities	Yes	Yes	There is evidence that overall farmers and organic farmers participating in the project made better use of their own water management techniques, but the project farmers have a higher water storage capacity than in the comparison group.
Resilience index	Yes	Yes	Positive impact on resilience index in both organic farmers in the project (Group A) and regular organic farmers (Group C); organic project farmers scored 39 percentage points higher than regular organic farmers in the province.
Overall wealth	No	Yes	Project participants were found to be significantly better off in both the overall sample and in the restricted sample of organic farmers only. This result was obtained using a wealth index that combined different household assets.
Food security	No	Mixed	Direct beneficiaries of the project (i.e. organic rice farmers) were found to have a marginally more diversified diet than the relevant comparison group. No evidence was found of severe food security between any groups.
Investment in education	No	No	There was no evidence at any level that the project had increased directly project households' expenditure in schooling.

Main findings

The review found strong and compelling evidence of project impact in the overall resilience index. This index was constructed by summing 16 characteristics in which each rice farming household scored positively. This index was found to be significantly higher on average in the intervention group (for both all rice producers and organic ones only) than among comparison farmers.

There were nine specific indicators of resilience where the project was particularly impactful:

First, rice farmers were able to diversify their crop portfolio, and raise fruit production. Also, compared to the farmers in the non-project sample, intervention farmers have had access to a larger number of credit sources, and become more aware of climate change.

The project was found to be successful in all areas of contingency resources and support access: rice farming households in the intervention groups were better off relative to those in the comparison group in accessing savings, diversifying income sources, owning a larger share of livestock, and in cultivating own food garden for self-consumption. The latter set of findings represent a particularly important result, as these indicators are all positively correlated with the resilience potential of rice farmers in case of a negative climate change shock.

The analysis also suggested that all project beneficiaries had better access to water facilities as a result of the project, and that their ability to store water was significantly higher than that of the comparison group thanks to the project impact.

The key reflection that emerges from effectiveness review results is that the project has been largely successful

for its direct beneficiaries; the organic rice farming households. There are three areas where there has been no evidence (or mixed evidence) of impact. First, no evidence of project impact was found in terms of use of weather forecast services, and farmers' ability to use the service to improve their rice production. Second, the project had limited success in increasing total agricultural production. The only clear positive effect in this area was found among overall and organic beneficiaries of the project (the direct beneficiaries of the project) whose fruit production was found to be significantly higher than the comparison group. Thirdly, the project had limited impact in the knowledge area: here the only underlying indicator of success was found to be improved water management practices for project beneficiaries.

Recommendations

The following points merit reflection based on the report findings:

Continue to look at implementing projects that address long term livelihoods beyond the weather factor.

The report confirms that the climate change adaptation project is on track to enable Thai farmers in the Northeast to adapt to instances of severe prolonged dry spells. Adaptation in this context is not only about saving the rice field or maintaining the yield, but also about looking at long term livelihoods beyond the weather factor. With the technical assistance from the project partner and with Oxfam support, rice farmers in the Yasothon province of Thailand have changed to grow premium quality Jasmine rice certified by IFOAM organic labelling for the export market. This has granted them an extra price margin and the potential for extra savings to invest more on farm productivity. Going forward, the subsequent step would be a continuous improvement in productivity, in which the weather variability becomes one key factor alongside other existing constraints such as bad soil, lack of irrigation, and quality seeds.

Put the climate change adaptation project in the context of a wider livelihoods resilience programme which includes improving trading terms of rice farmers.

The project objectives of improving farm productivity and crop diversification is only one part of the rice farmer's resilience plan. Another objective of the programme is to improve the supply chain as a whole.

Address the need to develop a better forecast technology as well as better analysis of the needs relevant to weather forecast.

Investment in technology is the least successful element of the project. The development of weather forecast at the district level would be ideal to inform farmers' decision around their annual crop planning. As it turns out, the report shows less impact in the following areas: farmers did not find the forecast accurate enough, and dissemination of forecast to the farmers was not even. The report findings perhaps suggest the need to develop a better forecast technology as well as better analysis of the needs relevant to weather forecast. For example, some women expressed the desire to receive accurate weather forecast not just to save the rice crop, but possibly to help them plan and diversify crops, which also suggests that in this context the adaptation of rice farmers includes their willingness to shift cultivation to crops of higher value than rice.

3. Overall do the findings of the review concur with your own expectations or assessment of the project's effectiveness?

Yes, the findings concur with the final evaluation at the project end with the beneficiaries and help quantify the resilience into numbers significantly higher in comparison with non-intervention groups.

4. Did the review identify areas that were particularly strong in the project?

Yes, the review identified 3 key strong areas that can increase farmers' resilience: targeting higher value market, investing on-farm water management to reduce risk from prolonged dry spell, and diversifying crops to generate income all year round instead of once a year from rice farming.

5. Did the review identify areas that were particularly weak in the project?

Yes, the review identified the limited success of local weather forecasting.

6. Summary of review quality assessment

The quality of the review is relatively strong. The process was able to ensure the right and sizeable comparison groups in the time limit. However, some questions could be better defined if time of preparation was allowed but overall it did not significantly impact the quality.

7. Main Oxfam follow-up actions

The new Oxfam Country Strategy for Thailand shifts the focus towards policy influencing, private sector engagement and community enterprises for the communities in the forests and coastal area. The new strategy plans to lay the foundation of fair trade in Thailand and is expected to benefit farmer groups to have alternative markets domestically and incentivize farm adaptation. The initiation of Thai Fair Trade scheme with stakeholders has started to improve markets and investment on climate change adaptation for small holders. The project has started and will be completed phase 1 by March 2016.

8. Any conclusions/recommendations Oxfam does not agree with or will not act upon

The recommendation on improving the weather forecast technology is valid but requires much larger size of investment. The farmers also prioritize weather forecast less than investments to improve farm practices and seek new market. Thus, in the final year, the project engaged the National Meteorology Department a few times to exchange with the farmers and share their plan to improve the national forecasting system. The Met Dept was in the process of upgrading the system and offered on request the local weather forecasting in the critical period of rice cultivation.

9. What learning from the review will you apply to relevant or new projects in the future? How can the regional centre/Oxford support these plans?

The review reassures that the strong farmers' organisations continuously improve both eco-system friendly agriculture and target premium markets, making organic rice farmers more resilient than those using chemically intensified single-crop agriculture. This model will be advised to partners for the forest communities that intend to alter from single-crop agriculture while Oxfam pushes for a national system of fair trade scheme to favour fair and inclusive business of small scale holders.

10. Additional reflections

None