



OXFAM

Guatemala Highlands Value-Chain Development Alliance Effectiveness Review – Summary Report



Oxfam GB
Women's Empowerment Global Outcome Indicator

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Acknowledgments:

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Executive Summary

Under Oxfam Great Britain's (OGB) Global Performance Framework (GPF), samples of mature projects are being selected at random each year to undergo a rigorous assessment of their effectiveness. In the financial year of 2011/12, the Guatemala Highlands Value Chain Development Alliance (GUAB49) was selected for evaluation against OGB's global indicator for women's empowerment:

- **Proportion of supported women demonstrating greater involvement in household decision-making and influencing affairs at the community level.**

This project, together with two related projects (GUAB38 and GUAB62), have provided support to members of producer associations in the Department of Sololá, in partnership with the Asociación de Desarrollo Agrícola y Microempresarial (ADAM), and in alliance with Sysco, Superior Foods and Alimentos Sumar, the purchasers of the produce of the four associations. The primary objectives of these projects have been to improve household food security and strengthen agricultural livelihoods. Activities have included: agricultural extension support, distribution of fertiliser, training on the cultivation of kitchen gardens, provision of productive infrastructure to associations, and support in establishing linkages to private-sector vegetable exporters. At the same time, the activities are seeking to strengthen the position of women within the associations and within their households, with many of the activities carried out specifically with female members of the associations.

In February 2012, with the support of an external consultant, a team of enumerators administered a household survey to 383 members of producers' associations and producers' groups in the Department of Sololá. As well as members of the supported associations, enumerators interviewed members of comparable associations and groups that had not received similar external support. The survey was designed to allow evaluation of the projects against their intended outcomes and against OGB's global indicator for women's empowerment. At the analysis stage, the statistical tools of propensity score matching and multivariable regression were used to control for measured differences between the supported and comparison households.

The effectiveness review found evidence of positive impact on the ability of women to influence decisions in producer associations, as well as on attitudes to women's economic roles among women themselves. These effects are mostly concentrated on those women who were not directly members of the producer associations themselves, but who are wives or partners of male association members. To some extent, this may be because many of the women who are direct beneficiaries are members of women-only associations, and, consequently, there is less potential for their influence in their associations to change, as compared to women in mixed associations. There is no evidence to date that the projects have impacted women's influence in household level decision-making; the extent of women's involvement in such decision-making was found to be approximately the same among the supported and comparison households.

On the livelihoods outcomes, results are mixed. The projects appear to have been highly successful in encouraging the adoption of some improved agricultural techniques and cultivation of broccoli and other vegetables. However, there is, as of yet, no indication that this has led to higher returns to producer households. Surprisingly, the distribution of significant quantities of fertiliser in 2011 had no detectable effect on maize yields. Moreover, there is no evidence of an effect of activities carried out thus far on household income, food security or other measures of wellbeing.

Suggestions to enable to programme team to learn from this effectiveness review include:

- Consider whether and how project activities are intended to reinforce each other when designing projects, as well as how evaluation will be carried out.
- Consider using the sample interviewed for the project effectiveness review as a baseline for the full project (GUAB62).
- Investigate why the fertiliser distribution and other agricultural support did not lead to improved agricultural productivity or increased household income.

Introduction and Purpose

Oxfam GB has put in place a Global Performance Framework (GPF) as part of its effort to better understand and communicate its effectiveness, as well as enhance learning across the organisation. As part of this framework, modest samples of sufficiently-mature projects are being randomly selected each year and rigorously evaluated. One key focus is on the extent they have promoted change in relation to relevant OGB global outcome indicators. For projects focusing on empowering women, the global outcome indicator is the *proportion of supported women demonstrating greater involvement in household decision-making and influencing affairs at the community level*.

In the 2011/12 financial year, the Guatemala Highlands Value-Chain Development Alliance project (GUAB49) was one of those randomly selected for an effectiveness review. This project is the second of three projects supporting members of several local producer associations in the Department of Sololá in Guatemala. These projects are implemented in partnership with the Asociación de Desarrollo Agrícola y Microempresarial (ADAM), and they focus on increasing agricultural production and household food security, as well as giving opportunities for increasing women's participation in the associations.

One of the key purposes of the project effectiveness review was to assess the extent to which members of these supported groups are better off in relation to the global indicator for women's empowerment than if they had never been supported. The effectiveness review also involved assessing the effects of the projects on other outcomes they are intending to bring about, including the extent to which they have, to date, resulted in positive change in agricultural production and household incomes.

Evaluation Approach

The projects under consideration aim to improve the lives of selected beneficiaries at the grassroots level. From an impact evaluation perspective, the best way to evaluate their effectiveness would have been to restrict their implementation to randomly selected geographical areas, leaving other sites for comparison purposes. This impact evaluation design is known as a clustered randomised controlled trial. If this design had been used, the impact of the projects could have been assessed by directly comparing outcome indicators for households residing in the implementation and control sites. If all went well, the randomisation process would have made the households in the intervention and control sites comparable in every way, save their participation in the programme.

In fact, there was no random element to the selection of beneficiaries targeted by the projects. The producers' associations involved were selected because of ADAM's existing relationship with them, and the specific beneficiaries were deliberately chosen. Consequently, an alternative impact assessment design was pursued, which attempts to "mimic" a randomised trial by identifying comparison groups which are similar to the supported groups, and then statistically controlling for any measured differences between them.

To implement the design, groups of producers were identified who were comparable to those included in the Oxfam/ADAM projects, but who had not themselves benefited from these or similar projects. A questionnaire was designed and administered to a randomly-selected sample of 148 of the supported households, as well as to 235 comparison households. At the analysis stage, propensity-score matching (PSM) and multi-variable regression were used to control for observable differences between the women and men that were interviewed.

It should be noted that this effectiveness review covers only the interventions which had already been implemented at the time of the survey. The infrastructure and facilities provided to the associations under project GUAB49 had only recently been constructed and were not yet in use at the time of the survey, so their impact could not be assessed. Further,

this effectiveness review does not cover the activities of the main Value-Chain Development Alliance project (GUAB62), which had only recently been launched at the time of the survey.






Outcomes Evaluated






The intended outcomes of the Guatemala Highlands Value Chain Development Alliance projects that were assessed as part of the effectiveness review included:

- Outcome 1:** Greater involvement in household decision-making
- Outcome 2:** Greater influence for women in community-level associations
- Outcome 3:** Attitudes to women’s economic roles
- Outcome 4:** Women’s self-efficacy
- Outcome 5:** Increased household income

Impact Assessment Summary Table

The following summary table gives a snapshot of the key findings of the effectiveness review. A short narrative description related to each outcome then provides further information on each key finding. A separate technical report is also available, with a more detailed description of the evaluation design, process, and results. The table below summarises the extent there is evidence that the project realised its targeted outcomes in the form of a simple five-point ‘traffic light’ system. The key to the right shows what the traffic lights represent.

-  Evidence supporting large impact
-  Evidence supporting more modest impact
-  Evidence of large impact, but only for specific sub-groups or measures
-  Evidence of modest impact, but only for specific sub-groups or measures
-  No evidence of impact

Outcome/Impact	Rating	Short Commentary
Outcome 1 – Greater women’s involvement in household decision-making		No evidence of an increased level of involvement for women in household decision-making.
Outcome 2 – Greater influence for women in community-level associations		Evidence of positive change, not among women direct beneficiaries, but among the wives and partners of male beneficiaries.
Outcome 3 – Attitudes to women’s economic roles		Evidence of improved attitudes among the female household members of male beneficiaries, but no indication of attitude change among the female beneficiaries themselves.
Outcome 4 – Women’s self-efficacy		Evidence of increased self-efficacy among women direct beneficiaries <i>and</i> among female household members of male beneficiaries.
Outcome 5 - Increased household income		No evidence of improvement in indicators of household income or wellbeing.

Applicability: These results apply to the households which directly participated in the various project activities carried out in 2010 and 2011 in the four producer associations. The infrastructure investments made during 2011 were not yet operational at the time of the survey, so their impact could not be assessed.

Impact Assessment Findings

Outcome 1 – Greater women’s involvement in household decision-making

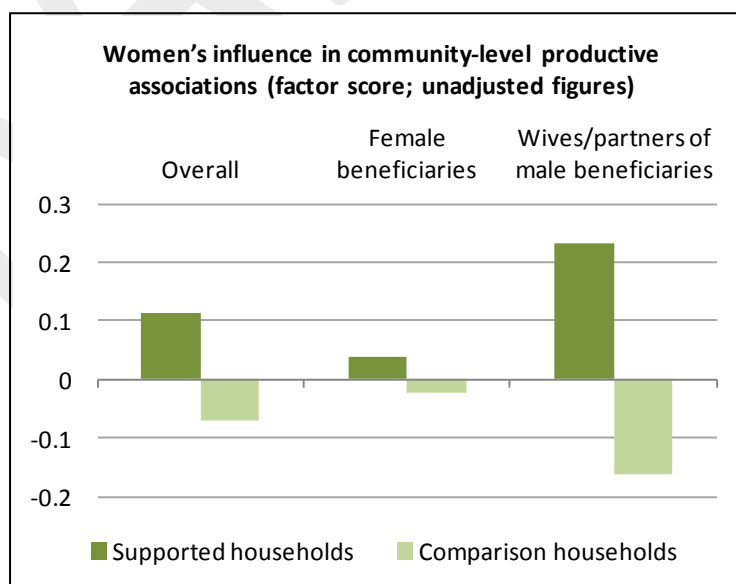
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The survey asked women to describe the degree of their involvement in a range of types of decisions taken in their households – or the degree to which they *could be* involved, if they wanted to be. These results were aggregated, and a percentage score was calculated for each respondent, representing the level of their involvement in household decisions overall. On this measure there were no discernable differences in the involvement of surveyed women in household decision making between the supported households and the comparison households. This applies equally when considering the women who were direct beneficiaries of the project or the wives and partners of male beneficiaries.

Outcome 2 – Greater influence for women in producers’ associations

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A separate component of the questionnaire asked women to state the extent to which they agree or disagree with various statements about their ability to influence decisions within the producer associations in their community. An aggregate score was constructed using principal factor analysis, a technique which reduces statistical “noise” to produce an overall decision-making index for each respondent. In the chart below, zero represents the extent of influence reported by the average respondent, while positive scores represent above-average influence and negative scores below-average influence. In this case, there were significant differences between the supported households and the comparison households. The women who were interviewed as direct project beneficiaries did not report having significantly greater influence in their associations than the corresponding comparison women. However, this is not surprising, given that the majority of them are members of all-women associations, and were therefore probably more likely to feel empowered within their associations. Nevertheless, the women interviewed in the households of male project beneficiaries also reported that they had greater ability to influence the associations in their community than the corresponding comparison women.

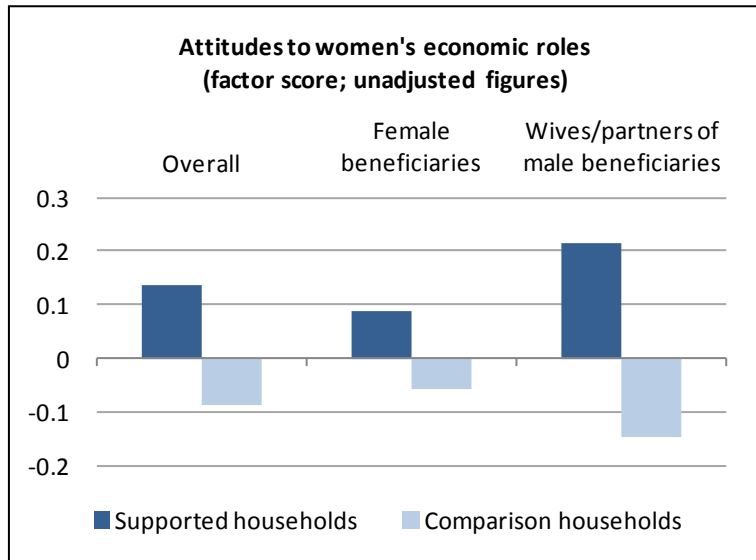


It was not possible to link this apparently positive effect to any of the specific project activities. It is most likely that this effect on women’s influence within the producer associations is a result of ADAM’s relationship with the four producers’ associations, which has involved encouraging women’s membership, participation and leadership over a longer term than just the 18 months of this project.

Outcome 3 – Attitudes to women’s economic roles



Surveyed women were asked to state the extent to which they agree with or disagree with 15 statements about the economic roles of women. Principle factor analysis was again used to aggregate these responses and produce an index score for each respondent. The results closely mirror the results of the association influencing scores: there are significant differences between the wives and partners of supported male beneficiaries and comparison producers, but not (or only marginally) between the female beneficiaries themselves.



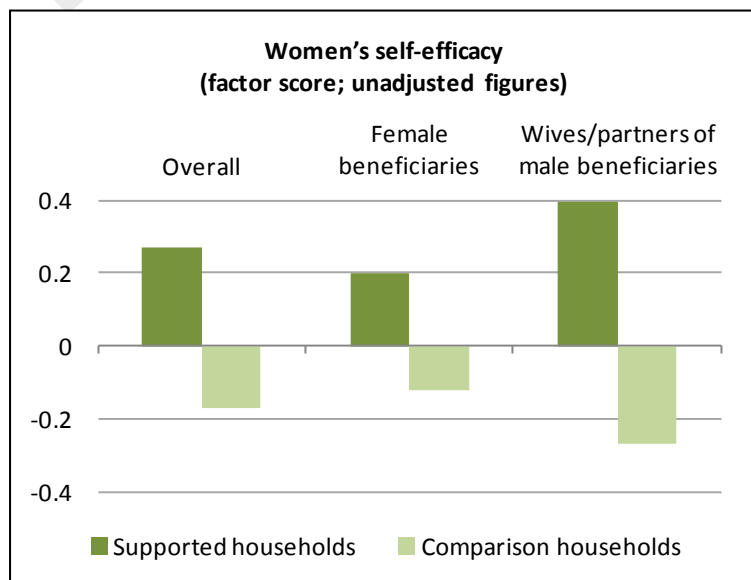
It should be noted that the female beneficiaries express more positive attitudes to women’s economic roles than the wives and partners of male beneficiaries do. However, the difference with the comparison group in each case – the best estimate of the change which ADAM and this project have produced – is higher among the wives and partners of male beneficiaries. In part, there may be fewer signs of impact among the female direct beneficiaries because they were already at a positive level when the projects began.

Outcome 4 – Women’s self-efficacy



Female respondents were asked how they felt they could cope with particular situations as a measure of their self confidence and belief in their personal ability to solve problems and address challenges. The women were read eight statements and asked whether it was ‘not at all true’, ‘hardly true’, ‘moderately true’ or ‘exactly true’ for them. Again an index score was generated for each respondent through principle factor analysis.

As can be seen in the chart, the level of self-efficacy reported by women of the supported households was found to be clearly higher than in the comparison households. As in the case for the other outcome measures, the effect is greater among female members of the households of male beneficiaries. Nevertheless, there is also a significant positive effect for the direct female beneficiaries of the project.

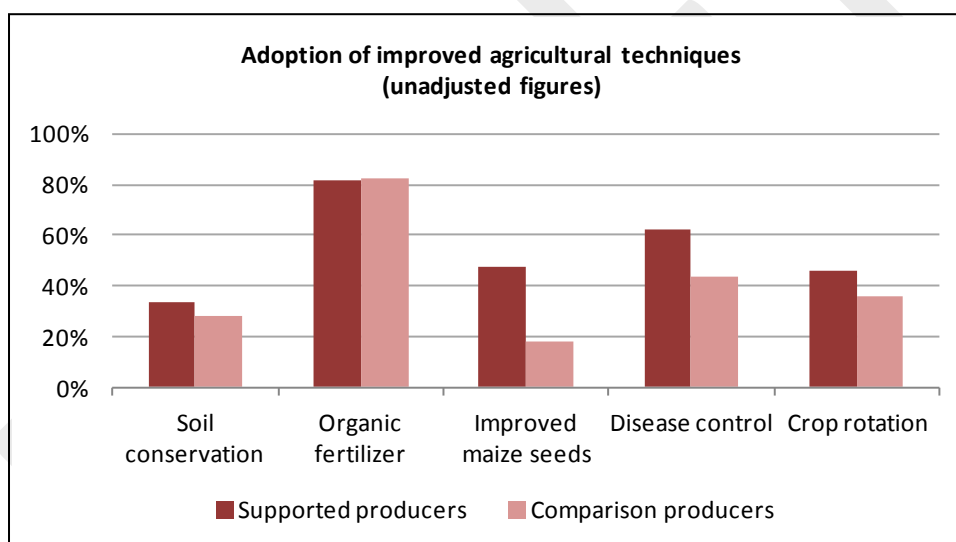


Outcome 5 – Increased household income

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While the effectiveness review focused primarily on evaluating progress against indicators of women's empowerment, the primary objective of the Value-Chain Development Alliance is to improve the livelihoods and market power of supported producers. Although the Alliance programme was still in its infancy at the time of the survey, various activities had been carried out in support of food security and agricultural production over an 18-month period under the two projects GUAB38 and GUAB49. One commercial operation had been also carried out involving the four associations and the private-sector purchasers Alimentos Sumar, Superior Foods and Sysco. The survey included questions on respondents' productive activities and household wellbeing, to allow evaluation of the success of these activities.

One clear result from the survey is that the technical support which ADAM provided to members of the supported cooperatives had been successful in encouraging them to adopt modern agricultural techniques. As seen in the chart below, this is particularly so for the use of improved maize seeds and disease control methods. It is also clear that the component of the project which encouraged the cultivation of broccoli was successful: more than half of those identified as having participated in this aspect of the project produced some broccoli in 2011, compared to only 22 per cent of the comparison population.



Interestingly, supported producers also produced and sold a slightly wider range of crops than comparison producers, even after broccoli is excluded. In particular, supported households were more likely to be growing vegetables such as carrots, radishes and *güicoy* than the comparison households. It should be noted that this is *not* linked to the activity of encouraging production from kitchen gardens (*huertos familiares*). In particular, the increased diversification is observed among the support producers as a whole, but not particularly among those who participated in the kitchen-gardens activity.

Surprisingly, the distribution of significant quantities of fertilizer to approximately half the beneficiary group in 2011 had no detectable effect on maize yields. Reported yields averaged 1.6 to 1.7 *quintals* per *cuerda* for both groups. Also interesting is that the supported households farmed *less* maize during 2011 than the comparison households; on average, supported households planted maize on 25% less acreage than comparison households. A possible explanation is that the project encouraged some of the producers to divert more of their efforts to alternative livelihoods activities.

To investigate what effect these various activities had on households' overall economic situation, respondents were asked for details of their recent expenditure, including:

- The value of all food which had been consumed in the household in the previous seven days.
- The amount spent on most common types of regular expenditure (including transport, communications and cosmetics) in the month previous to the survey.
- The amount spent on less-common expenditure types, such as health costs, school costs, and investments.

This information was aggregated and divided by the number of household members (with adjustments made for children and some allowance for economies of scale) in order to estimate per-person per-day expenditure for the household.

The results provide little evidence that supported households have higher per capita expenditure than comparison households. (The numerical estimates show a slight positive difference between the two groups, but this difference is not statistically significant.) This finding is consistent with various other indicators of household wellbeing collected in the survey. Specifically, there is no indication of impact on household food security, ownership of assets, or on respondents' subjective descriptions of their level of wellbeing.

While there is no evidence of impact on the overall *level* of household income and consumption, there is a difference in the *diversity* of food types consumed. Supported households reported consuming approximately 20 per cent more food types than comparison households in the seven days prior to the survey. This effect estimate applies across all categories of food types (carbohydrates, pulses, meat, fruit and vegetables, and even drinks). Again, this result does not appear to be linked to the project's promotion of kitchen gardens.

It is important to re-emphasize that the infrastructure investments made under the GUAB49 project had only recently been completed at the time of the survey. These investments are expected to increase productive efficiency and, in turn, bolster producer income. However, it was too early for the impacts of this particular project to be assessed through this effectiveness review.

Programme Learning Considerations

- **Consider whether and how project activities are intended to reinforce each other when designing projects, as well as how evaluation will be carried out.**

The activities of the various projects were intended to be complementary to some extent. However, the groups of beneficiaries who participated in each activity only partially overlapped. For instance, two-thirds of those interviewed as beneficiaries were direct participants in only one of the various activities across the GUAB38 and GUAB49 projects.

To an extent, the two projects, GUAB38 and GUAB49, have acted as a preparatory phase for the GUAB62 project, allowing the programme to experiment with a variety of approaches. However, if experimentation is the aim, it is important to build in means to assess the success of the various activities being implemented. In this case, the structure of the projects made evaluation difficult. This meant that some of the apparent impacts (such as that on crop diversification) cannot be attributed to any of the specific project activities. Some of the activities – notably the women's economic leadership training – were carried out on too small scale to allow for quantitative evaluation of impact.

We recommend that the ways in which projects are expected to generate their intended impacts be more clearly specified, as well as what the relationships between these activities are, and – particularly if the project involves piloting or testing activities – how they will be evaluated.

- **Consider using the sample interviewed for the project effectiveness review as a baseline for the full project (GUAB62).**

Since implementation of the full project (GUAB62) began around the time of the effectiveness review field work, it may be useful to treat the sample of participant and comparison households interviewed as a baseline for this project. In spite of the evidence found for differences in some outcome measures between the supported and comparison households, the two groups are similar enough that they could function as a reasonable baseline. A final evaluation of GUAB62 would then involve re-surveying the same sample of respondents at the end of the full project, and preferably collecting some of the same outcome measures. This would enable a rigorous assessment of this project's impacts to be made.

- **Investigate why the fertiliser distribution and other agricultural support did not lead to improved agricultural productivity or increased household income.**

One of the effectiveness review's clearest findings is that the projects have been successful in encouraging participants to adopt practices such as using improved seeds and disease control methods, and in engaging broccoli production. However, there is no indication that these activities have yet led to an increase in household income. Clearly, the infrastructure investments made under GUAB49 did not have sufficient time to achieve impact at the time of the survey. The difficulties experienced in marketing the broccoli in 2011, despite the alliance with the private companies, may also have prevented that activity from bringing benefits to most households. However, the more general support given to agricultural production over 18 months should normally be expected to result in some modest income gain to beneficiary households. The new marketing conditions agreed more recently with the companies involved in the Alliance may result in improved outcomes in the future.

A particularly surprising finding is that maize yields were no higher among supported producers – even among those who received fertiliser – than the comparison producers. It is not clear from the results presented here why the fertiliser did not lead to increased yields (the survey did not collect data on other agricultural inputs). However, it is important to understand this before making distributions of this kind in the future.