



Livestock Commercialisation for Pastoralist Communities in North Dakoro Project Effectiveness Review – Summary Report



Oxfam GB
Adaptation and Risk Reduction Outcome Indicator

August 2012

Acknowledgments:

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Executive Summary

Under Oxfam Great Britain's (OGB) Global Performance Framework (GPF), samples of sufficiently mature projects are being randomly selected each year and their effectiveness is being rigorously assessed. The Livestock Commercialisation for Pastoralist Communities project in Niger was one of those selected for an Effectiveness Review under the adaptation and risk reduction (ARR) thematic area in 2011/12. This project has been implemented in partnership with the Association pour la Redynamisation de l'Élevage au Niger (AREN) in the commune of Bermo, located in the Maradi Region of Niger, since 2009. While the project has focused on improving the livelihoods of pastoralist households, particularly through increasing their negotiating power when buying and selling livestock, another one of its important components has been to build resilience in an area prone to severe droughts.

To assess the effectiveness of the programme on reducing risk and promoting adaptive capacity, a quasi-experimental impact evaluation was implemented. This involved administering surveys to 197 households in Bermo commune, as well as 449 households in the neighbouring commune of Gadèbedji, who served as a comparison group. At the analysis stage, the statistical tools of propensity-score matching and multivariate regression were used to control for demographic and baseline differences between the intervention and comparison groups, so that remaining differences in outcome measures can be assumed to reflect the results of the project. As well as collecting data on risk reduction and adaptive capacity, the survey also included questions on livelihoods activities, livestock transactions, and indicators of household wellbeing.

Various difficulties were encountered in carrying out the survey work, which complicated the analysis of the results. However, some conclusions can, nevertheless, be drawn with reasonable confidence. With respect to Oxfam GB's global indicator for adaptation and risk reduction, there is no overall difference between households in the Bermo commune who are supported by this project and comparable households from the Gadèbedji commune. In particular, households in the intervention area did not demonstrate any difference in destocking or migration behaviour, livelihood diversification, or livestock diversity. Despite the project's investment in renovating wells in the Bermo commune, households in the Gadèbedji commune were just as likely to be using a modern cemented well for watering their livestock as those in Bermo.

On the other hand, it is clear that households in the Bermo commune have received a greater level of veterinary support and more training on drought management techniques during 2011 than the comparison households. In line with the primary objective of the project, some beneficiaries – the members of the Groupement des Interêts Economiques (GIE), a local association supported directly by this project – reported having received more training and support in marketing their livestock. This support appears to have had some effect: the prices realised from the sales of cattle and sheep by households in the Bermo commune are systematically higher than those realised in the Gadèbedji commune. Some key interventions were still to be implemented at the time of the survey, including the handover of management of the livestock market in Bermo town to the GIE, as well as the establishment of ten solidarity groups focused on various artisanal products. Unfortunately, however, there is no evidence that the supported households were better off overall as a result of the activities carried out up to December 2011, on any of the various indicators of household income and wellbeing.

Oxfam in general and the Niger country team and partners in particular are encouraged to consider the following points as a follow-up to this effectiveness review:

- Review approaches to promoting key risk reduction activities, including destocking and migration.
- Ensure that monitoring and evaluation systems and processes are fully integrated into programme design and implementation.

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 to enhance learning across the organisation. As part of this framework, modest samples of sufficiently mature projects (e.g. those closing during a given financial year) 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.

The global outcome indicator for the adaptation and risk reduction (ARR) thematic area is based on the extent households emulate characteristics assumed important for recovering from shocks and adapting to emerging trends and uncertainty. This indicator is explained further below. The work that took place in Niger in December 2011 and January 2012 was part of an effort to capture data on this indicator. The project randomly selected for the effectiveness review, the Livestock Commercialisation for Pastoralist Communities in North Dakoro project (NGRA36), has been implemented in partnership with the Association pour la Redynamisation de l'Élevage au Niger (AREN) in the commune of Bermo, located in the Maradi Region of Niger, since 2009. The project aims to both support the livelihoods of pastoralist households – particularly through enabling them to increase their negotiating power when buying and selling livestock – and enable them to reduce their vulnerability to the frequent droughts in the area. To realise these aims efforts have been undertaken to build the capacity of the Groupement des Interêts Economiques (GIE), a local association of pastoralists created with Oxfam and AREN support in 2008, to enable it to provide benefits to the wider community of pastoralists in Bermo commune.

Evaluation Approach

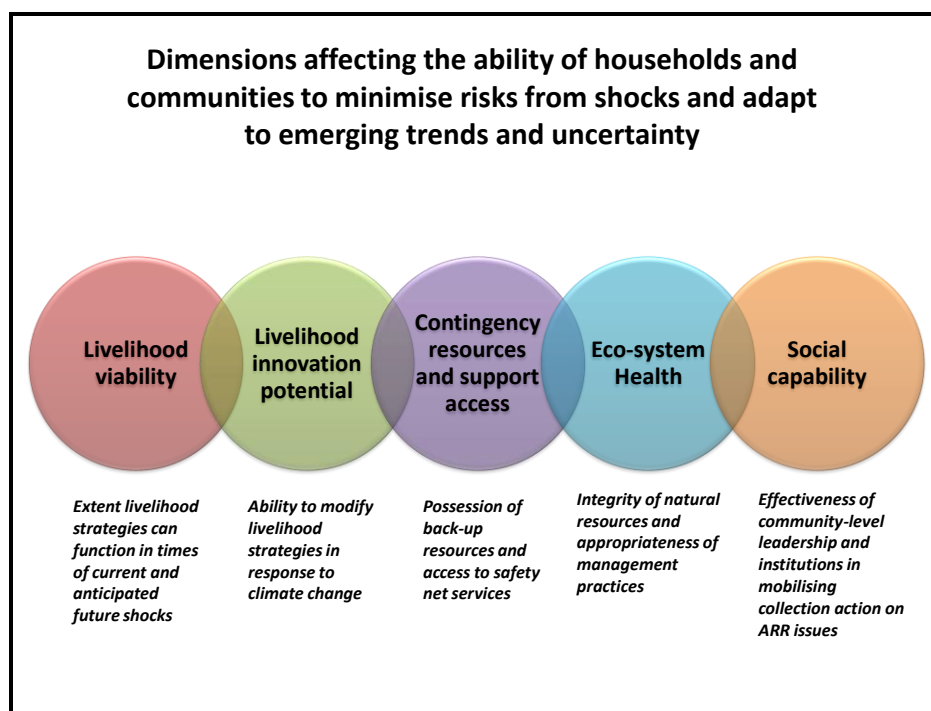
The Livestock Commercialisation for Pastoralist Communities in North Dakoro project is attempting to enhance livelihoods and improve resilience to drought among households at a grass-roots level. From a rigorous impact evaluation perspective, the best way to evaluate such an intervention would have been to restrict its implementation to randomly selected geographical areas, leaving other sites for comparison purposes, i.e. as controls. This impact evaluation design is known as a clustered randomised controlled trial. If this design had been used, the impact of the project could have been assessed by directly comparing the outcome indicators among the treatment and control groups. If all went well, the randomisation process would have made the households in the intervention and control sites comparable in every way, apart from their participation in the project.

However, this project was not in fact carried out in randomly-selected geographic areas; the activities were implemented through the GIE with the intention of benefiting communities across the commune of Bermo. An alternative impact assessment design was consequently pursued. This design is referred to as a quasi-experiment because it attempts to “mimic” what a randomised controlled trial does by identifying comparison households that are similar to the supported households, and then statistically controlling for any measured differences between them.

To implement this evaluation design, Oxfam and AREN staff identified the neighbouring commune of Gadèbedji as having sizeable numbers of pastoralist households that are similar in make-up to the supported households in the Bermo commune but whom were not thought to have benefited significantly from the project's activities. Questionnaires were carried out with a total of 197 households in the Bermo commune (including 51 who identified themselves as members of the GIE) and 449 households in Gadèbedji commune. Various difficulties were experienced with the selection of respondents for the survey, but the resulting dataset is sufficient to make some assessment of the impact of the project. At the analysis stage, the statistical tools of propensity-score matching and multi-variable regression were used to control for measured differences between the supported and comparison households.

Outcomes Evaluated

As part of OGB's Global Performance Framework, efforts are being undertaken to develop an innovative approach to measuring the resilience of households to climate-related disasters and their ability to adapt to climate change. This approach involves capturing data on household and community characteristics falling under five interrelated dimensions:



Consequently, a key aim of the study was to assess whether the households residing in the intervention sites emulate these characteristics to a greater extent than households in the comparison villages. Evidence of this would give us confidence that the project is successfully building resilience. The effectiveness review therefore investigated what evidence there is that the project affected the characteristics, both in aggregate and by dimension and specific characteristic. The specific characteristics examined are listed in the table below.

Specific ARR characteristics assessed in this project effectiveness review

Dimension	Characteristic
Livelihood viability	<ul style="list-style-type: none"> • Livelihood diversification • Herd diversity (as of mid-2011) • Crop diversity • Access to seasonal forecast information • Support in marketing livestock • Destocking behaviour • Seasonal migration behaviour • Access to veterinary services • Drought preparedness training
Livelihood innovation potential	<ul style="list-style-type: none"> • Attitudes to change and willingness to try new practices
Access to contingency resources and support	<ul style="list-style-type: none"> • Possession of convertible assets (other than livestock)
Natural resource access, management and health	<ul style="list-style-type: none"> • Access to improved water source for livestock

In addition, various other outcome indicators were collected, to assess the success of the project in supporting households in marketing their livestock and in improving their livelihoods.

Overall, the main outcomes measures which were assessed in this effectiveness review were:

Outcome 1: Oxfam GB global indicator for adaptation and risk reduction






Outcome 2: Increased negotiating power when buying or selling livestock




Outcome 3: Increased household income and wellbeing

It should be noted that some key activities of the project were not yet in place at the time of the survey, and so the effectiveness of these interventions could not be assessed. In particular, the project was supporting GIE to take charge of the livestock market in Bermo town during early 2012, an intervention which was expected to result in better returns to pastoralist traders, partly by restricting the use of intermediaries (*dilalli*) for trading in livestock. In addition, various solidarity groups were being established at the time of the effectiveness review, which were expected in time to have an impact on household incomes of their members.

Impact Assessment Summary Table

The following summary table provides a snapshot of the key findings of the effectiveness review. A short narrative description related to each outcome then follows to unpack each key finding. A separate more technical report is also available, which provides a more detailed and technical description of the evaluation design, process, and results. The table below summarises the extent to which 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 presents what the various traffic lights represent.

	Evidence supporting large impact
	Evidence supporting more modest impact
	Evidence of large impact, but constrained to specific sub-groups
	Evidence of modest impact, but constrained to specific sub-groups
	No evidence of impact

Outcome/Impact	Rating	Short Commentary
Outcome 1 – Oxfam GB global indicator for adaptation and risk reduction (ARR)		No evidence of impact on the aggregate ARR indicator, either among GIE members or the wider population.
Outcome 2 – Increased negotiating power when buying or selling livestock		Some indications that households in the project area have realised higher prices when selling cattle and sheep.
Outcome 3 – Increased household income and wellbeing		No indications that households in the project area have improved in terms of income, food security or wealth indicators.

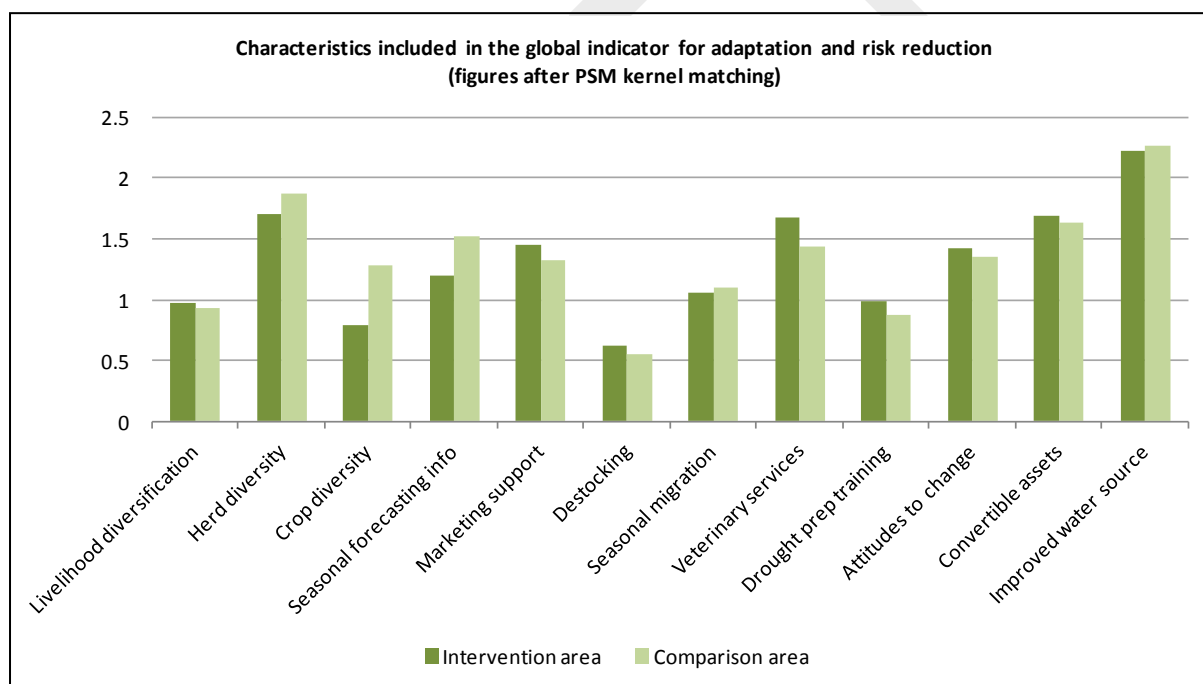
Impact Assessment Findings

Outcome 1 – Oxfam GB global indicator for adaptation and risk reduction (ARR)

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Survey respondents were asked various questions about their household's livelihoods activities, their responses to recent experiences of drought, and the activities they were undertaking during the current dry season. This information allowed each household's situation in relation to the characteristics of adaptation and risk reduction listed in the table on page 3 to be evaluated. Each household was allocated a score of between 0 and 3 for each characteristic (higher scores representing greater capacity for adaptation or risk reduction), and these scores were aggregated to give the overall ARR score for the household. The Oxfam GB global indicator is the proportion of households with a score greater than that of a typical household (as defined by the median) in the comparison group.

Overall, the survey results revealed no significant difference between the ARR scores of those in the intervention area (the Bermo commune) and those in the comparison area (Gadèbedji commune). This was the case whether considering the GIE members specifically or the broader population in Bermo commune. There is, then, no evidence of impact on the global ARR indicator as a whole.



However, when the data are disaggregated, there are important differences between the supported and comparison producers for some of the ARR characteristics. The breakdown of results by characteristic is shown in the chart above. Most of the differences between intervention and comparison households in this chart are not statistically significant: for example, at the time of the survey around a third of households had engaged in some destocking to prepare for the dry season, but there was no detectable difference in this proportion or in the extent of destocking between the intervention and comparison areas. There are also no significant differences between supported and comparison households in terms of livelihood diversification, diversity of animals in the herd, or migration behaviour. There are indications that the range of crops being grown by supported households has actually decreased, relative to the comparison area, over the lifetime of the project. The use of seasonal forecasting information is also significantly lower in the project area than the comparison area. Around a third of respondents reported using a modern cemented well for watering their livestock, with no significant difference between the intervention and comparison areas in this respect.

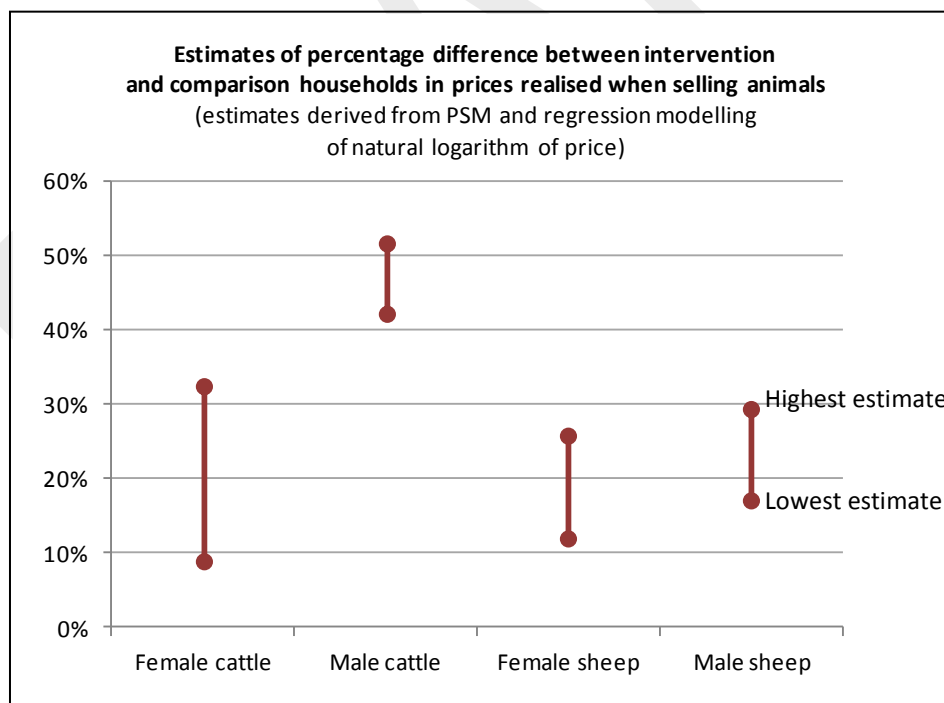
There was no sign of an effect overall on the level of support received in marketing livestock. However, when the GIE members were considered alone, they did report receiving greater support in

this area, consistent with the primary aim of the project. The two areas where households in Bermo commune were clearly better off were in their use of veterinary services and the intensity of training they had received on drought preparedness. The positive results on these two characteristics, however, do not apply to GIE members specifically but only to the wider population.

Outcome 2 – Increased negotiating power when buying or selling livestock G A

This project’s primary aim was to support pastoralists to realise better gains when marketing their livestock, and a large proportion of GIE’s activities have focused on this. In the analysis of the global indicator, we found that GIE members (though not the wider population in Bermo commune) reported that they have received greater levels of training and support in marketing livestock than had the corresponding comparison households. To see whether this training had been effective in improving their market power, respondents were asked for the prices they paid and the prices they received the last time they bought or sold livestock, respectively. They were also asked whether these transactions were carried out via an intermediary (*dillali*), something the project has been trying to discourage.

One very clear finding is that intermediaries were used for almost all of the livestock transactions reported by households – only a handful of respondents had made any transactions without an intermediary. However, in spite of this, it appears that households in Bermo commune were receiving generally higher prices when bringing cattle or sheep to market. As can be seen in the chart below, the price difference is clearest in the case of male cattle, with the price premium gained by households in Bermo commune of between 40 and 50 per cent. The price differences were smaller but still positive for sales of female cattle and sheep. There were too few transactions reported to make judgements about the prices realised for sales of other animal types, or for the prices paid when purchasing animals.



Outcome 3 – Increased household income and wellbeing

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Various outcome measures were used to investigate whether the project had supported households to increase their level of income or wellbeing (or, at the very least, mitigating a decline):

- The respondent's own assessment of whether his or her household income increased, decreased, or remained around the same level since 2008.
- The respondent's assessment of the household was currently able to meet its basic needs from income, without resorting to selling assets or relying on assistance.
- The household's food security situation, measured using six questions adapted from the Household Food Insecurity Access Scale developed by USAID's Food and Nutrition Technical Assistance Programme (FANTA).
- An index of the household's asset ownership and related wealth indicators, including ownership of productive assets, household goods, and the condition of the house.
- An index of the herds owned by the household.

In each of these indicators, there was no systematic difference between households in Bermo commune and comparable households in Gadèbedji commune, whether considering GIE members specifically or the population in general. There is, then, no evidence that the activities of the project which had been carried out as of December 2011 had made a significant contribution to increasing household income or wellbeing.

It should be noted that Oxfam and AREN have provided extensive humanitarian assistance in both Bermo and Gadèbedji communes since 2008. The data collected in this effectiveness review does not make an assessment of the impact of that humanitarian assistance but only of the *additional* support provided by the livestock commercialisation project.

Programme Learning Considerations

Oxfam in general and the Niger country team and partners in particular are encouraged to consider the following points as a follow-up to this effectiveness review:

- **Review approaches to promoting key risk reduction activities, including destocking and migration.**

Despite the emphasis which was being given by Oxfam and AREN staff at the time of the effectiveness review to encourage pastoralists to destock their herds and take other steps to prepare for the dry season, there is no evidence that the supported households were any more likely to have taken these steps than the comparison households. Consideration should be given to whether the means by which these messages are delivered to households could be strengthened. In particular, we recommend engaging with the Programme Policy Team in order to learn from good practice in encouraging behaviour change among pastoralists in other programmes.

- **Ensure that monitoring and evaluation systems and processes are fully integrated into programme design and implementation.**

The inaccessibility of the project area and the security risks involved in operating there have probably made it particularly difficult to monitor implementation of this project closely. However, these factors make it all the more important to conduct regular reviews of progress. The monitoring system should include periodic interviews with small numbers of pastoralists in Bermo commune, particularly to check how well the project's messages about livestock marketing and risk reduction are reaching them and are understood and being followed. If the project does appear to have been successful in generating higher gains to pastoralists from their livestock transactions – as the results of this effectiveness review suggest – then it will be important to track whether and how these gains eventually translate into improvements in food security or improvements in the welfare of household members.