



Evaluation of 'Stories of Change' Goat and Irrigation Projects in Malawi

Full Report

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1.0 EXECUTIVE SUMMARY

Across the globe, Oxfam has a long tradition of creating sustainable impact in the communities it serves. However, time and resource constraints often mean that programme results are not fully assessed, documented and shared with staff or the general public. Recognising the power of good data dissemination, Oxfam embarked on a new initiative in early 2009: called “Stories of Change”, this effort aims to combine quantitative results and ‘first-person’ narratives to develop strong communications materials that are backed up rigorous programme data. Overall, “Stories of Change” profile project achievements and challenges in four key country sites: Malawi, Haiti, India, and Sri Lanka. This particular document focuses on Oxfam’s work in Malawi, and specifically on its livelihood rehabilitation programme, which includes a goat distribution scheme (operational between 2005-2006 in the Thyolo district), and two irrigation schemes (constructed between 2005- 2007 in the Thyolo and Mulanje districts). Both of these interventions were designed and implemented with the intention of re-building more resilient livelihoods for local community members, following an acute food crisis in 2005.

In Thyolo Oxfam has distributed female goats to eligible local households as a low-cost, high-return strategy for giving recipients a versatile asset that can produce offspring for sale/food consumption and manure for sale/farming use. Since the intervention’s start in 2005, Oxfam has worked in partnership with District Government staff and local community-based organisation (CBO) partners to reach more than 2,798 beneficiaries in Thyolo through a simple process. First, Oxfam and partners raised local awareness about the project and set up Village Livestock Committees (or VLCs) to choose eligible goat recipients (who were typically persons living with HIV/AIDS, child heads of households, or other vulnerable community members). Once chosen, these beneficiaries each received one Oxfam-purchased female goat from the VLCs, with the distribution process supported by the CBOs. Male goats (bucks) were kept by the village head and were free for programme recipients to use in breeding). Beneficiaries then raised their goats, bred them with local bucks, and passed on the first born female kid to other identified beneficiaries. All subsequent offspring remained the property of the beneficiary for sale/home use/additional breeding. Oxfam also funded training for beneficiaries (delivered by government extension workers) on animal husbandry and housing, animal health, manure use, and other key topics. In addition, Oxfam-trained local livestock technicians delivered follow-up veterinary care and animal medicines.

By the end of the project’s lifespan, Oxfam and local partners aimed to achieve the following food/income security-related outcomes among beneficiaries: A 50% increase in beneficiaries’ annual agricultural production, through the use of goat manure to enrich soil, a 50% increase in beneficiaries’ annual household income, through the sale of kids bred from project does, and 80% of households using goats as a primary resilience/coping strategy during hungry months (by selling kids for cash and/or by consuming meat as part of the household diet).

Meanwhile, in Thyolo and neighbouring Mulanje, another intervention focused on improving crop cultivation through irrigation, with 997 local farmers (combined) benefiting as a result. The irrigation intervention’s process is also straightforward, working to mitigate poor/unreliable rainfall and improve crop yields through several steps. First, government extension workers helped communities identify locations for irrigation scheme construction (usually on land already being leveraged by local beneficiaries, but without formal irrigation canals). Oxfam and district extension workers then raised local awareness about the project and set up a local irrigation committee to manage the scheme.

Oxfam proceeded to build a network of cement irrigation canals which channeled water from a nearby natural source to arable land tracts (in both schemes, the tracts are privately-owned parcels whose owners have consented to lend their land for scheme use). After construction was completed, local committee members were trained to operate and maintain the canals. In parallel, local irrigation committees registered area farmers for tracts of irrigated land. Here, the sole determinant of eligibility was participants' capacity to pay an initial membership fee and an annual land rental fee. After registering, each producer got seasonal access to a farming plot until all plots were allocated (at which point no further applicants were accepted). During the rainy season, which typically lasts from (approximately) December to April, beneficiaries used their own household plots for subsistence cropping while irrigation scheme land owners farmed irrigation plots. In the dry season, scheme land owners gave the plots over to beneficiaries, who could then grow between one and three cycles of 'off-season' maize and vegetables.

To promote higher-yield harvests, Oxfam also provided local beneficiaries with "starter packs" of inputs at the onset of the project (including seeds and fertiliser/manure). On an ongoing basis, Oxfam-supported extension workers visited the community to advise beneficiaries on new farming techniques; Oxfam and partners also raised beneficiaries' awareness about state-sponsored coupons for subsidised fertiliser, and about inputs available from nearby depots run by ADMARC, the parastatal Agriculture Development and Marketing Corporation whose functions include the provision of low-cost inputs and hungry-month maize supplies for area farmers. To promote better market access for scheme-grown crops, Oxfam-supported community committees identified market opportunities and in some cases concluded agreements with local buyers. Concurrent with these field-based efforts, Oxfam also funded and mentored local NGOs to lobby government officials--with the aim of influencing policy-making on ADMARC to ensure that its social roles are maintained, despite recent calls for its privatisation.

By the end of the irrigation intervention's lifespan, Oxfam and local partners aimed to achieve the following food/income security-related outcomes among beneficiaries: 70% of beneficiary households with greater annual production levels of maize/other crops, 70% of beneficiary households with access to ADMARC inputs (like fertilizer and seeds) and/or maize, and 70% of beneficiary households with access to markets that offer a profit margin of 30% or greater for the sale of maize and other scheme crops. While not explicitly stated as outcomes, improving gender equality and opportunities for/attitudes toward persons living with HIV/AIDS (PLWH/A) in local communities were key cross-cutting themes for both interventions—and a specific impact goal for the goat intervention, which aimed to achieve better health/care for chronically ill people/PLWH/A as a result of project activities.

In February 2009, Oxfam carried out an evaluation of both interventions' progress to date, with the aims of learning about *ex post* results and assess sustainability after project close-out, exploring the potential for possible future scale-up, and supporting the multi-country "Stories of Change" campaign to document and promote results more effectively. A mixed team of Oxfam and external evaluators aimed to determine whether the goat and irrigation schemes have in fact been moving toward the successful achievement of anticipated outcomes/impact in beneficiary communities; the team also wished to ascertain which, if any, of the interventions' accomplishments might be attributable to Oxfam support. While the very recent completion of both projects suggests that it may still be early to gauge the effects (if any) of Oxfam contributions, evaluators nonetheless felt the

longer-term outcome goals described above could serve as useful ‘yardsticks’ to measure progress to date toward longer-term project success.

To carry out its evaluation, the Oxfam team targeted samples of each intervention’s beneficiary population and compared these cohorts against non-beneficiary samples located in the same communities and with largely similar characteristics. Evaluators sought to determine whether clear differences existed between the two groups in the project areas described above—and if so, whether these differences may be attributable to Oxfam activities. The team used a mix of quantitative and qualitative methods, including—for the goat intervention only—a quantitative household survey administered to 80 beneficiary households and 80 non-beneficiary households, and for both interventions qualitative focus group discussions/semi-structured interviews with selected stakeholders. These methods are described in detail in the full-length report that follows.

While the evaluation team was, in general, able to carry out a meaningful assessment of the goat and irrigation interventions, some limitations affected the quality and rigour of data collected. A lack of quantitative background data for the evaluation sites made comparative analysis difficult: for both projects, a shortage of good baseline data for the locations visited forced evaluators to rely on respondents’ *ex post* recollections of their prior livelihood status—a somewhat unreliable process—rather than simply comparing new reported responses with previously documented *ex ante* results. The timing of the evaluation also coincided with the peak of the annual ‘hungry season’; as a result, evaluators were concerned that respondents’ adverse circumstances might bias their responses toward the negative.

Yet despite these challenges, evaluators found promising results which suggest that both projects are, in many respects, making good progress toward its stated aims. For the **goat intervention**, in the outcome area of **increased production through manure use**, the team observed that 72% of beneficiaries who use goat manure cited production increases since joining the goat project (compared with only 32% of non-beneficiaries who used manure, most of which came from non-goat sources like chickens or cows). Beneficiaries reported that goat manure has helped boost crop yields by enriching soil quality and reducing the need for fertilizer, which was expensive and only improved yields in the short term (rather than contributing to long-term soil quality). In contrast, many non-beneficiaries cited their lack of good goat manure as a barrier to production growth. Evaluators also found that some female beneficiaries have become more empowered now that newly-available manure has catalysed the growth of household vegetable gardening. The growth of this activity, and women’s involvement in it, has provided female beneficiaries with a valued additional income source that they can manage independently of men in their communities. However, some challenges were also observed: in some communities, beneficiaries mentioned that other inputs that are key to production increases (eg. fertilizer, seeds, etc.) have been hard to obtain, impeding overall output growth.

In the outcome area of **increased household income through goat sale**, the team found that since the start of the project, beneficiary incomes have risen by an average of 70% (although more males than females feel that their incomes have risen since receiving a goat), and beneficiaries have earned between US\$10 and US\$50 for each full-grown goat kid sold. Many beneficiaries believed their ability to use goats as a ‘long-term livelihood asset’ was a key advantage of goat ownership: kids could be kept until shocks necessitated a sale; manure could be used year-round. The team also noted that goats can be key income generators for PLWH/A: they require little investment of labour

or time, and husbandry is not physically demanding. Finally, while income from goat/goat product sales has been used to pay for school fees, medication for household members with chronic illness, and other key expenditures—a key impact-level benefit—evaluators did note that most beneficiaries still rely on agriculture as their main income source at present; only 37% of beneficiaries have actually produced goat offspring for sale.

Where the **use of goats as hungry month coping strategy** is concerned, evaluators discovered that 80% of beneficiaries believe that goat ownership has helped them cope better in times of hunger, and that 64% of polled beneficiaries report an increase in overall food security since the start of the project (compared with only 22% of non-beneficiaries). Some beneficiaries have been able to reduce their hunger period from 8 months to 4 months through the sale of goats and use of goat products, which has replaced the need to sell maize—enabling the crop to be kept at home for consumption. However, most beneficiaries affirmed that ADMARC has not helped them reduce their hungry months/ combat food insecurity, as ADMARC depots are far from their communities and often poorly stocked. A majority also noted that they still presently rely on *ganyu* (or piecework) as their main coping strategy during hungry months—and that the use of goats/goat products to offset food shortages is still an emerging practice.

Moving to the **irrigation intervention**, evaluators also found promising results. In the outcome area of **increased agricultural production**, beneficiaries reported an average 114% rise in annual maize yields since joining the irrigation project (compared to a 77% mean increase among non-beneficiary farmers). Some beneficiaries were able to triple their annual harvests from 3 bags of maize to 12 bags in a single year, after using project “starter kits” of fertiliser and seed and accessing irrigated plots. Project-supported production growth may have also led to a rise in local women’s empowerment: beneficiaries noted that more women are leading farming activities since the start of the project. In the impact-level area of food security, 71% of beneficiaries reported feeling more food secure since joining the irrigation scheme (compared with only 25% of non-beneficiaries); since the start of the project, some beneficiaries have been able to reduce their annual hunger period from 8 months to naught. However, some beneficiaries raised concerns about the sustainability of project support. Key inputs like fertiliser are only provided free of charge at the start of the project; after that time, beneficiaries must purchase these items at prices that are usually very high.

On a related note, in the outcome area of **increased access to ADMARC inputs/maize, through better Oxfam-supported advocacy**, evaluators noted that government officials have recently decided to keep ADMARC’s social function of maize and input provision intact, reversing earlier plans to privatise the organisation. This outcome may be partly due to Oxfam support for ADMARC lobbying efforts: members of Parliament and ministerial staff noted that Oxfam-funded local advocacy groups provided key information about ADMARC and agricultural issues, and that parliamentarians often consulted these resources during their policy planning. Meanwhile, at the grassroots level some beneficiaries have used ADMARC coupons to purchase subsidised fertiliser, which in some cases has contributed to a doubling of annual crop yields. However, it appears that few beneficiaries rely on ADMARC for maize in hungry months—as ADMARC maize depots are too far, too crowded, or understocked during these times.

Finally, with regard to the outcome of **increased access to more profitable markets**, evaluators found that 45% of beneficiaries feel “better off” in the area of market access since joining the project

(compared with only 20% of non-beneficiaries). After project efforts to increase access, many beneficiaries have been able to sell new crops like wheat and tomatoes for the first time, with average profit margins for tomato sales exceeding 40 percent. Better market access has also likely translated into higher incomes: 72% of beneficiaries felt “better off” in the area of income generation since joining the project (compared with only 38% of non-beneficiaries). Some beneficiaries have used surplus scheme income to fund large-scale household activities like the construction of new dwellings, or the addition of tin roofing. However, evaluators noted that logistical challenges including a lack of transport and poor pricing coordination have impeded market access for some producers. In addition, programme activities do not appear to have focused on organising producers to enhance their bargaining power, nor have strong efforts been made to identify profitable markets for producers to access.

To help overcome these and other challenges, and to better inform future intervention planning, evaluators have made several **recommendations**. **Overall**, the team suggests that Oxfam and partner NGO staff may wish to carry out **more regular project monitoring and evaluation (M&E)**. Current data collection is somewhat sporadic, and data is often not fed back into project planning processes. Stronger M&E will help staff identify project strengths/weaknesses and enhance future planning. **For the goat project**, proactive **provision of non-manure farming inputs** (specifically fertiliser) may help beneficiaries overcome production challenges and boost their agricultural output (despite some risk of encouraging a longer-term reliance on project support). Closer **monitoring of the goat pass-on process** and more support for goat housing and veterinary care may improve overall animal health and encourage more beneficiaries to leverage goats as a key income generator and/or hungry-month coping mechanism. **For the irrigation project**, longer-term **provision of farming inputs**—beyond the current “starter packs”—could help beneficiaries grow their production more sustainably, improving longer term food security (although here too, the risk of dependency on project support also exists). **Enhanced advocacy efforts** (which could include more frequent training of local partners) may be a lower-risk way to help ensure that ADMARC inputs and maize are available in more communities across the programme coverage area, and in greater amounts. Finally, **increased producer capacity-building** and proactive efforts to **improve market opportunity identification, transport and storage** may help beneficiaries enhance their market access, income levels, and income security. If some or all of these suggestions are implemented in order to address key challenges, and if future project efforts build on both interventions’ current successes, then the goat and irrigation schemes have strong prospects for growth and scale-up.

2.0 INTRODUCTION

2.1 BACKGROUND – STORIES OF CHANGE

Oxfam has a long tradition of creating lasting impact in the communities it serves. However, tight timelines and limited budgets often mean that programme results are not fully assessed, documented and shared with staff or the general public. Given that Oxfam depends on large numbers of individuals and institutional funders for resources to carry out its work, better storytelling about “what works” in Oxfam programming can be a powerful motivation for these donors to continue their support. Better storytelling may also draw in new donors and raise more awareness about Oxfam programmes among the public at large. In addition, good narrative documentation can help Oxfam country staff identify areas of program strength and weakness, in order to make changes where needed.

Recognising the power of good storytelling, Oxfam embarked on a new initiative in early 2009. Called “Stories of Change”, this effort aims to combine quantitative data and ‘first-person’ narratives with the goal of developing strong communications materials (for use locally and in the UK) that are backed up rigorous programme data. The initiative focuses on livelihood programmes in particular, at four country sites: Malawi, Haiti, India and Sri Lanka. In carrying out this activity, Oxfam’s aim is to meet both external and internal needs. For outside stakeholders, Oxfam hopes to collect, analyse and present data that demonstrates key results which can be clearly attributed to Oxfam interventions. Within the organisation, Oxfam aims to build its own capacity to collect data effectively, analyse it meaningfully, and communicate it powerfully to others. Each of the four Stories of Change follows a common structure and process:

- ***A research/planning phase***, where Oxfam and country staff identify key themes, projects and geographic locations for evaluation and documentation.
- ***A logic model phase***, where the team works together to create a clear, concise logic model for selected projects, in collaboration with local stakeholders.
- ***An evaluation phase***, where the team tests the logic model’s hypotheses through field work that involves the collection and analysis of data from selected project activities. This phase includes ‘story gathering’, where country staff and UK-based communications staff document compelling individual case studies together.
- ***A product development phase***, where the team summarizes findings and transforms them into a) an internal evaluation report and b) powerful communications products for key audiences.

For its Malawi Story of Change, Oxfam chose to focus on the livelihood-linked themes of food security and income security, and the related sub-themes of agricultural production and market access. In Malawi, Oxfam has devoted substantial resources to addressing these challenges both at the level of direct project intervention and at the level of advocacy. As a result, Oxfam believed that strong potential existed for finding Stories of Change which might show a link between Oxfam’s work in these areas and better local livelihoods outcomes. Narrowing its focus further, Oxfam selected two specific Malawi interventions which exemplify its efforts: A goat distribution scheme that formed part of livelihood rehabilitation programmes operating in communities across the

Thyolo district in 2005-2006,¹ and two irrigation schemes constructed between 2005- 2007² (one large-scale irrigation scheme built in the Mulanje district, an area where Oxfam no longer works at present, and another smaller scheme in the Thyolo district, where Oxfam is still working through partners). Both of these interventions were designed and implemented with the intention of re-building more resilient livelihoods, following a food crisis in 2005. (See Appendix for district/project site map). The logic of both these interventions is described in detail below.

The Thyolo goat scheme was chosen partly because of the strong brand value of Oxfam's work with goats among UK audiences, but also because of its potential for scale-up into more sites in coming programme cycles. Selecting this project for Stories of Change allowed Oxfam to carry out a timely assessment of its successes and shortcomings—and determine whether goat distribution may in fact be an effective mechanism for livelihoods enhancement on a larger scale. The irrigation scheme in Mulanje was chosen because of the scale of Oxfam's investment there, and the interest in learning more about the sustainability of the approach since Oxfam's exit in 2007. The Malawi team also identified the Thyolo irrigation scheme as an ideal evaluation choice, viewing it as an activity which had greater likelihood for future replication given its small scale; Thyolo also provided an opportunity to examine how Oxfam worked to deliver support through local partners. Finally, the fact that the construction of both these schemes and accompanying extension activities were completed in 2007, offered a unique opportunity to “follow up” with beneficiaries and assess what (if any) medium to longer-term benefits have come from participation.

Alongside these two interventions in the communities, the Malawi programme was also actively engaged in a lobbying process which also aimed to strengthen agricultural production and food security. Whilst this was conceived as a separate activity in management terms, for the purpose of this evaluation the lobbying activities have been linked with the logic of the irrigation intervention. The intention here is to demonstrate the potential of Oxfam's “One Programme Approach” which aims to ensure our work in humanitarian response, long-term development and advocacy and campaigning are closely linked and mutually supportive.

2.2 CONTEXT AND DESCRIPTION OF SELECTED INTERVENTIONS

2.2.1 CONTEXT OF INTERVENTIONS

With an estimated annual per capita income of US\$ 200 in 1999, Malawi is one of the world's poorest nations. Two-thirds of the population lives below the poverty line; overall, the country is ranked 161 out of 174 states on the UN's Human Development Index.³ Historically, low education levels, limited labour market opportunities, and poor linkages with other regional markets have hindered Malawi's economic growth. More recently, changing weather patterns and rising HIV/AIDS levels have exacerbated an already dire situation. Today, over 87% of the population is engaged in agriculture as its main income-generating activity (IGA), with a focus on production of maize, tea and tobacco for export and domestic consumption. But with 13 million inhabitants crowding an area smaller than the U.S. state of Pennsylvania, individual farming plots are tiny

¹ Intervention was carried out as part of the Shire Highlands Sustainable Livelihoods Programme and took place in Mulanje, Thyolo and Phalombe. The intervention in Thyolo district was prioritised for this evaluation.

² Also part of the Shire Highlands Sustainable Livelihoods Programme and taking place in other sites. These two sites were prioritised for both logistical reasons and because of their relevance to the learning priorities of the evaluation.

³ Source: *Joint Oxfam Programme in Malawi – Report on Annual Outcome and Impact Assessment: 2008*.

(typically, less than one hectare). Most smallholders over-farm their land, degrading its soil quality and producing increasingly smaller crop yields. Traditionally reliable rainfall patterns have become erratic over the past two decades, resulting in severe droughts that have decimated crop harvests, created food shortages—and, ultimately, have led to long-term food insecurity among many Malawians. HIV/AIDS has added to the agricultural sector's woes, as formerly able-bodied workers fall ill in growing numbers. Labour shortages at key planting and harvesting times are now creating clear efficiency losses for many farmers. These realities have prompted many smallholder producers to favour less labour-intensive (but less financially lucrative) crops and farming processes.

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The Government of Malawi, despite its limited financial resources, has made some moves to address these challenges: Fertiliser and other input subsidies were introduced in the 2005-06 and 2006-07 growing season, with generally favourable results: In 2006 the country enjoyed an 8% grain production surplus; in 2007 Malawi boasted a “bumper harvest” and a 22% surplus. While favourable rains likely played a large role in these outcomes, government subsidies are also credited. The role of the parastatal Agricultural Development and Marketing Corporation (ADMARC), has been critical to the government's input and food security strategy. ADMARC was founded in 1971 with the mandate to:

- provide smallholder farmers with subsidized inputs through a network of local depots
- buy, store and resell grain output from local producers during harvest times
- provide access to cheap maize for many of the same smallholders during the dry season—when their food needs are high but household production is low.⁴

ADMARC, through these mainly “social functions”, has given millions of Malawian farmers a reliable food security/income safety net since its start. However, the government's more recent liberalization of the agricultural marketplace has led to a rise in competition from other agricultural bulk buyers, and ADMARC's virtual monopoly on commercial maize purchase/sale has been eroded. This, combined with management inefficiencies has driven it deep into debt, causing the closure of hundreds of its depots, and prompting strong calls for its privatisation in recent years.

In response to these multiple challenges, Oxfam has been implementing sustainable livelihoods interventions in Southern Malawi since 1994, most recently under the umbrella of the Joint Oxfam Programme in Malawi programme funded through a combined effort between Oxfam, Oxfam Novib, Oxfam Ireland, and Oxfam Hong Kong. For the purpose of this evaluation, evaluators examined two sub-components of this wider programme, the Thyolo Sustainable Livelihoods Project and the Mulanje Sustainable Livelihoods Project. Both the Thyolo and Mulanje projects tackle an ambitious range of topics: Livelihoods, HIV/AIDS, Emergency Preparedness, Governance and Gender. Central to both, however, is a commitment to a shared social impact: Improved income and food security for rural households. Through hands-on activities that target grassroots community members, these projects have worked to address many of the obstacles facing small-scale producers, compensate for the effects of overfarming and climate change, and, through strong lobbying, ensure that ADMARC's services remain available to local farmers.

⁴ Source: *Poverty and Social Impact Analysis of Reforms*.

2.2.2 DESCRIPTION OF INTERVENTIONS

In Thyolo, the district that adjoins Malawi's main commercial centre of Blantyre, Oxfam has focused substantial efforts on the distribution of female goats to eligible local households. Viewed as a potentially low-cost, high-return livelihoods development strategy, this intervention aims to provide recipients with a versatile asset that can produce offspring for sale or food consumption and manure for sale and/or farming use. Since the intervention's start in 2005, Oxfam has worked in partnership with District Government staff⁵ and local community-based organisation (CBO) partners to reach more than 2,798 beneficiaries in Thyolo⁶ through the following process:

- 1) Oxfam, together with government staff, raised awareness about the project in local communities and secured local buy-in for implementation. Oxfam and government staff then supported local CBOs to establish and orient Village Livestock Committees (or VLCs) to lead the local beneficiary selection process and help with distribution and follow-up.
- 2) Village livestock committees, under the guidance of local CBOs, select eligible community members to receive goats. Recipient beneficiaries typically meet one or more of the following criteria:
 - Chronically ill persons (with HIV and AIDS or other ailments)
 - Child heads of households
 - Households keeping orphans.
 - Elderly community members with little or no support system
 - People with disabilities⁷
- 3) Oxfam and government staff then coordinate the purchase and delivery of bucks (male goats) and does (female goats) to the local community CBO, which then distributes one female goat to each selected beneficiary. Bucks are kept by the village head and are free for programme recipients to use. Government staff and CBOs also train beneficiaries on appropriate goat housing construction, and in some cases assist with the building of *kbolas* (goat housing structures).
- 4) Beneficiaries raise their goats, breed them with local bucks, and pass on the first born female kid to other identified beneficiaries. All subsequent offspring remain the property of the beneficiary for sale/home use/additional breeding. Oxfam funds training for beneficiaries (delivered by government extension workers) on animal husbandry and housing, animal health, manure use, and other key topics.
- 5) CBOs select community members for training as Village Livestock Technicians (VLTs). Oxfam then funds 3-day training courses for the nominated VLTs; courses are led by government extension workers. Following training, Oxfam funds the purchase and distribution of "starter drug boxes" to VLTs; drug boxes contain basic animal medicines which the VLTs distribute to

⁵ Oxfam's approach shifted in 2007 to focus on implementing work through NGO partners. These NGOs are currently involved in the implementation of Oxfam's work and helped evaluators collect data for the evaluation--but were not actively involved in the implementation of the goat distribution intervention evaluated here.

⁶ 3,879 female goats were also distributed to beneficiaries in Mulanje, and 786 to beneficiaries in Phalombe.

⁷ Source: *Evaluation Report of the Goat Distribution Program in JOPM*.

beneficiaries in need for a small fee (which funds drug box replenishment. Government extension workers provide further veterinary support for cases that surpass the technical capability of the VLT.

By the end of the project's lifespan, Oxfam and local partners aimed to achieve the following food/income security-related outcomes among beneficiaries:

- **Outcome 1:** A 50% increase in beneficiaries' annual agricultural production, through the use of goat manure to enrich soil.
- **Outcome 2:** 50% increase in beneficiaries' annual household income, through the sale of kids bred from project does.
- **Outcome 3:** 80% of households using goats as a primary resilience/coping strategy during hungry months (by selling kids for cash and/or by consuming meat as part of the household diet).

Meanwhile, in Thyolo and neighbouring Mulanje, another intervention focused on improving crop cultivation through irrigation. While small livestock husbandry offers smallholder farmers an opportunity to accumulate valuable assets, most rural Malawians rely on agriculture as their primary mode of subsistence. The irrigation project therefore draws on local communities' pre-existing farming skill sets, leveraging local land to create communal irrigated tracts that target large numbers of beneficiaries. By late 2007 when Mulanje implementation drew to a close, 893 local farmers had been served by the scheme, which had developed over 60 hectares of land for cultivation.⁸ Thyolo, in contrast, was a much smaller scheme benefiting 104 people, who farmed a smaller plot of about 20 hectares. It should be noted that both schemes continue to operate currently, but only the Thyolo scheme presently draws on Oxfam support. The Mulanje scheme relies on the irrigation committee and the government District Irrigation Officer and his team for ongoing assistance. The irrigation intervention's process is also straightforward, working to mitigate poor/unreliable rainfall and improve crop yields through several steps which are generally common to both project sites:

- 1) Government extension workers work with communities to identify suitable locations for irrigation scheme construction (on land already being leveraged by local beneficiaries, but without formal irrigation canals). Once sites have been identified, Oxfam⁹ and district extension workers raise awareness about the project in local communities and secure local buy-in for implementation. Oxfam helps establish a local irrigation committee to manage this scheme set-up process.

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- 2) Oxfam works with local communities to construct a network of basic cement irrigation canals which channel water from the nearby natural source to arable land tracts. In both schemes, the

⁸ 473 beneficiaries were farmers able to cultivate 3 times a year on fully developed land. A further 400 are "downstream" farmers who benefit from the scheme but can typically only cultivate twice a year, as they are not able to fully manage the water on their land and may suffer from excess or insufficient water.

⁹ As with the goat intervention, Oxfam delivered direct support to communities at the start of the programme, but subsequently worked through local partners.

tracts are privately-owned parcels whose owners have consented to lend their land for scheme use. After construction is completed, local committee members are trained to operate and maintain the canals.

- 3) In parallel, local irrigation committees register area farmers for tracts of irrigated land. Unlike the goat project, no particular vulnerability criteria exist for the irrigation scheme. The sole determinant of eligibility is participants' capacity to pay a US\$1.40 - \$3.50 (equivalent) initial membership fee and a US\$10.70 (equivalent) annual land rental fee. After registering, each producer gets seasonal access to a farming plot until all plots have been allocated (at which point no further applicants are accepted). In the Thyolo scheme, the plots were between 15m² and 30m², whereas in the Mulanje scheme, they were considerably larger at 0.1 hectares (it should also be noted that in Mulanje beneficiaries could register for multiple plots, with several participants reporting renting 2-3 plots, whereas in Thyolo, plots were limited to one per participant).
- 4) During the rainy season, which typically lasts from (approximately) December to April, Thyolo beneficiaries use their own household plots for subsistence maize crops while irrigation scheme land owners farm irrigation plots. In the dry season, scheme land owners give the plots over to beneficiaries, who generally grow one dry season crop (green maize or wheat) as well as vegetables for consumption and sale locally. A similar cycle of land use takes place in Mulanje, but as water is more readily available and water management more sophisticated in that district, irrigation plots yield three crops per year, generally maize, rice and wheat or tomatoes.
- 5) To promote higher-yield harvests, Oxfam provides local beneficiaries with "starter packs" of inputs at the onset of the project (including seeds and fertiliser/manure). On an ongoing basis, Oxfam-supported extension workers and government agricultural specialists visit the community to advise beneficiaries on new farming techniques and viable new crop types. Together with Government Extension Officers, Oxfam also raises beneficiaries' awareness about state-sponsored coupons for subsidised fertiliser, and about inputs available from nearby ADMARC depots.¹⁰
- 6) Irrigation committees and their marketing sub committees are supported by Oxfam and government extension workers to identify market opportunities; this process informs decision-making about crop planting and sale strategies (in Mulanje, an opportunity for producers to sell tomatoes in bulk to a canning factory was also established, but most producers still negotiate and sell their goods individually to local travelling buyers/at local markets).
- 7) Concurrent with these field-based efforts to improve production and market access, Oxfam also funds and mentors local NGOs to lobby government officials--with the aim of influencing policy-making on ADMARC for the benefit of local farmers. Here, Oxfam convenes meetings, commissions research, and provides other resources to help partner NGOs ensure that ADMARC's social functions (like the sale of subsidised inputs, the purchase of maize at fixed prices at harvest time, and the resale of surplus maize at low prices during hungry months) are maintained, despite recent calls for the entity's privatisation.

¹⁰ Source: Interview with Chiyambi Mataya, Programme Officer, Oxfam Malawi Office, 2 Feb. 2009.

By the end of the project’s lifespan, Oxfam and local partners aim to achieve the following food/income security-related outcomes among beneficiaries:

- **Outcome 1:** 70% of beneficiary households with greater annual production levels of maize/other crops, after taking part in the irrigation scheme.
- **Outcome 2:** 70% of beneficiary households with access to ADMARC inputs (like fertilizer and seeds) and/or maize as the result of successful Oxfam-led government lobbying to retain ADMARC’s ‘social function’.
- **Outcome 3:** 70% of beneficiary households with access to markets that offer a profit margin of 30% or greater for the sale of maize and other crops produced on the scheme.

While not explicitly stated as outcomes, improving gender equality and opportunities for/attitudes toward persons living with HIV/AIDS (PLWH/A) in local communities were key cross-cutting themes for both interventions—and a specific impact goal for the goat intervention, which aimed to achieve better health/care for chronically ill people/PLWH/A as a result of project activities. In both cases, the same communities were also the recipients of gender and HIV/AIDS interventions and efforts had been made to ensure that both the goat and irrigation interventions reached and empowered vulnerable populations in communities served.

2.2.3 INTERVENTION LOGIC MODELS

As part of the Stories of Change process, prior to the start of this evaluation, Oxfam’s senior Malawi team members, Oxford programme staff and an external consultant worked with Oxfam Malawi programme staff and partner NGO staff to capture the above-mentioned project processes in simple, clear logic models. The models aimed to give all project implementers a clear, shared understanding of the changes that each project hoped to achieve in local communities. The completed models for each project are shown here, along with the implementation and social change assumptions which stakeholders have identified in order for each model to unfold successfully:

Logic Model: Goat Intervention¹¹

Inputs	Activities	Outputs	Outcomes	Impact
Human Resources: • Oxfam	Mobilise community.	500 community members attend meetings and able to explain goat project.	50% increase in household income through sale of	Improved food and income security, especially during hunger
	Identify beneficiaries based on agreed criteria.	265 vulnerable households identified.		

¹¹ The numbers in this logic model relate to the activities in the Traditional Authority of Bvumbwe, the target area for the household survey. As mentioned above, 2,798 goats were distributed in Thyolo district.

<p>programme staff</p> <ul style="list-style-type: none"> • Partner NGO staff • Government extension workers <p>Financial/Capital resources:</p> <ul style="list-style-type: none"> • Goats for distribution • Drugs and drug boxes for medical support • Materials for goat houses (to be provided by community) 	Identify and train village livestock committees	11 village livestock committees exist to monitor goat distribution, care and pass on.	goats.	months.
	Identify literate members and train as technicians	5 technicians trained.	80% of households using goats as a primary resilience/ coping strategy during hunger months	Improved health / care for chronically ill people / orphans.
	Procure and distribute drug boxes	1 drug box distributed.		
	Train beneficiaries in goat husbandry	265 farmers trained.		
	Supervise goat housing construction	265 goat houses constructed.		
	Procure and distribute goats (does)	265 goats distributed to vulnerable households.		
	Procure and distribute goats (bucks)	18 bucks distributed to village livestock committees		
	Monitor goat breeding	Increased number of goats produced each year by goats owned by vulnerable households.		
	Supervise pass on of kids to new beneficiaries	70% of recipients pass on goats within the first two years.		
	Training beneficiaries in use of manure	265 vulnerable households using manure in maize production.		
Monitor production and use of manure				

Implementation assumptions:

- Farmers will be able to afford housing materials / construction
- Farmers will be able to afford cost of keeping goats in good health (fodder / drugs)
- Bucks will be accessible / affordable to use for breeding

Theory of change assumptions:

- Communities will be able to sell goats for a good price
- Incomes from sale of goats will be adequate to meet cash needs during hunger months
- Income from goats will be used to care for PLWH/A / orphans.

- Beneficiaries will be able to produce enough manure to apply to plots

Logic Model: Irrigation Intervention ¹²

Inputs	Activities	Outputs	Outcomes	Impact
Human resources: <ul style="list-style-type: none"> • Oxfam programme staff • Local agricultural extension staff • Government irrigation officer Financial/ Capital resources <ul style="list-style-type: none"> • Bags of fertiliser • Seeds • Bags of cement • Water pumps Natural resources: <ul style="list-style-type: none"> • Arable farmland for irrigation • Accessible irrigation water source 	Assess suitability of sites	Sites identified	70% of HHs with increased production of maize/other crops	Increased food and income security for communities involved in irrigation
	Sensitise the community	1000 community members understand the importance of irrigation.		
	Identify beneficiaries	400 farmers commit to involvement in the project and have access to land suitable for irrigation.		
	Form irrigation committees	1 irrigation committee overseeing membership fees, maintenance, social welfare & security.		
	Train groups in water management, irrigation farming, group dynamics, gender/HIV and marketing	400 farmers attend training on water management, irrigation farming, group dynamics, gender/HIV and marketing.		
	Procure and distribute inputs	400 farmers have seeds, fertilisers etc.		
	Conduct crop production demonstrations (plot layout, use of manure/inputs)	400 farmers implement improved irrigated crop production techniques		
	Supervise crop production activities (planting, weeding, fertiliser application, harvesting)	60 hectares at Mnembo cultivated under irrigation		
Promote manure making / monitor delivery of subsidy programme	60% of farmers apply organic or purchased fertilisers to fields			

¹² Numbers used in this logic model are based on the direct beneficiaries of the Mulanje scheme. As mentioned above there were a further 400 “downstream” farmers who also benefited in Mulanje and a further 104 benefitting in the Chaoneka scheme in Thyolo.

	Campaign to retain social function of ADMARC	ADMARC sells maize at prices lower than market rate during hunger months.	70% of HHs with access to ADMARC inputs and/or maize.	
	Carry out market assessment for crops produced under irrigation	Staff, partners and irrigation committees identify market opportunities	70% of HHs with access to markets offering a profit margin of 30% or greater for crop sales.	
	Establish and train irrigation committees in marketing	Committees provide market information to farmers and facilitate decision making around marketing		
	Facilitate meetings between groups and buyers	Farmers select new crops / markets on the basis of profitability		

Implementation assumptions:

- Irrigation committees will be able to pass on messages about market access opportunities to participating farmers.
- Farmers will be able to organise themselves in groups, to negotiate better crop sale prices in new markets.
- Farmers will qualify for input subsidy programme or will be able to produce sufficient manure to farm irrigated tracts adequately.

Theory of change assumptions:

- Sufficient water will be available to irrigate designated scheme tracts.
- Farmers will be able to access inputs (fertilizer, seed, etc) for new crops.
- Market access will be sustained over time, giving farmers reliable access to sale and income-earning opportunities.

2.3 EVALUATION METHODOLOGY

2.3.1 OVERVIEW

Over the course of goat and irrigation project delivery, Oxfam Malawi team members and partner NGO/CBO staff have documented certain key project success stories and “good practices”. However, much of this documentation has been anecdotal—leaving partners involved in the project and wider stakeholders (like donors, funders, and government counterparts) without a clear quantifiable understanding of the livelihood projects’ strengths/weaknesses and impact on communities. As significant funding had been invested in both irrigation and goat interventions, Oxfam, its Malawi team, and partner NGOs agreed that a more formal assessment of each project’s activities and ‘change models’ could be useful. An evaluation would help support future planning by providing a useful snapshot of the projects’ impact to date and prospects for growth. It could also

yield useable data that staff could integrate into communications materials—enabling them to promote the projects more effectively in Malawi and in the UK.

In conducting an evaluation, Oxfam and its partner NGOs aimed to answer two key research questions:

- 1) Through their ongoing activities, have the goat and irrigation projects made progress toward achieving the anticipated outcomes (and, by extension, impact) highlighted in the logic models above?
- 2) Which, if any, of these project results (positive or negative) might be attributable to Oxfam support?

To carry out this assessment work, Oxfam engaged an Oxford-based Programme Resource Officer and a third-party evaluation consultant to perform a two-week assessment at project sites in Thyolo and Mulanje. While the very recent completion of both projects suggests that it may still be early to gauge the effects (if any) of Oxfam support, evaluators nonetheless felt the longer-term outcome and impact goals presented in Section 2.2.3 would serve as useful ‘yardsticks’ to measure progress to date toward longer-term project success. As a result, the team used the outcomes stated above as standards for project performance measurement, and have grouped findings below by project, and then by outcome area. Findings have also been analysed within the framework of two main OECD-DAC EHA criteria¹³:

OECD-DAC Criterion	Evaluation Questions
Effectiveness	<ul style="list-style-type: none"> • Is the project component achieving its desired outcomes? Why/why not? • What positive/negative outcomes might be attributed to Oxfam’s project support? • What is Oxfam doing to enhance/impede the effectiveness of this component?
Impact	<ul style="list-style-type: none"> • Is there any evidence that the project component is creating wider social/economic impact? Why/why not? • What positive/negative impact, if any, might be attributed to Oxfam’s project support? • What is Oxfam doing to enhance/impede this component’s impact?

Like Stories of Change as a whole, the evaluation and its products have several audiences: Internal Oxfam staff (both in Malawi, across countries, and in the UK), as well as external stakeholders (including the general public, project beneficiaries, and programme partners). Internally, Oxfam hopes the evaluation will be used by:

- Malawi country staff to stimulate discussion, reflection and learning about 'good practice' in project delivery and as a basis for follow-up monitoring.
- Oxfam managers and Livelihoods Advisors in the development of its new Livelihoods strategy
- Oxfam MEL Advisors in their periodic assessments of Oxfam's effectiveness
- Other Oxfam country teams, to learn from the Malawi team’s experience of working with partners to implement goat/irrigation livelihood projects.

¹³ Source: *Evaluating Humanitarian Action Using the OECD-DAC Criteria*. Note that project activities/data were not evaluated/analysed in the context of the remaining DAC criteria) due to time and resource constraints. For example, data on “efficiency” (costs per participant, gross expenditure/returns on goat distribution, etc.) was not actively tracked by local partner NGOs and therefore not available for analysis.

Externally, Oxfam aims to share evaluation results with:

- Local NGO implementing partners, to inform future planning and help enhance joint work.
- Donor audiences in the UK and other Oxfam donor countries (in tandem with/embedded in communications products), to stimulate more involvement with Oxfam's work.
- Government/civil society members in Malawi and/or the UK, to demonstrate Oxfam's effectiveness and increase buy-in/cooperation with key decision-makers.

2.3.2 METHODS

Activities

To measure the goat and irrigation projects' progress toward planned outcomes, Oxfam evaluators identified a sample of each project's beneficiary population and compared this cohort against non-beneficiary samples with similar characteristics, located in the same communities. Evaluators sought to determine whether clear differences existed between the two groups in the each outcome area being evaluated—and if so, whether these differences may be attributable to Oxfam-supported activities. Given the project's emphasis on promoting gender equality and analysing differences between gender groups, the team also opted to evaluate male and female beneficiaries/non-beneficiaries separately where possible—or disaggregate data by gender. As Stories of Change aims to capture both numerical and narrative outcome/impact data, the team used a mix of quantitative and qualitative methods in its assessment work:

- **A Quantitative Household Survey** was administered to evaluate the potential effects of the goat intervention (due to time and resource constraints, evaluators were unable to carry out a household survey related to the irrigation project). The goat intervention survey was delivered to an overall sample of 80 beneficiary households and 80 non-beneficiary households in 10 villages in the Bvumbwe traditional authority of Thyolo district, and specifically in catchment areas targeted by a single CBO, the Bvumbwe Community-Based Organisation. Surveys asked respondents to compare *ex post* levels of income generation/security, market access, food security, gender perceptions and PLWH/A care with *ex ante* levels. Beneficiaries were asked to compare 2008 levels with levels in the last year prior to entering the goat project (usually between 2005 – 2007); non-beneficiaries were simply asked to compare 2008 levels with levels two years prior, as best they could recollect. Surveys were delivered by a team of 8 local surveyors trained by the Oxfam evaluation team. Data entry was carried out by a team of two local analysts at the Oxfam Malawi office in Blantyre before Oxfam evaluators analysed the results. Full survey questionnaires can be found in the appendix of this report.
- **Qualitative Focus Group Discussions** were held to assess both the goat and irrigation schemes. For the goat intervention evaluation, the team held 4 group discussions with beneficiaries and 4 discussions with non-beneficiaries; for the irrigation intervention, the team held 8 beneficiary groups and 2 non-beneficiary groups. All groups were gender-segregated; male evaluators met with male community members, and female evaluators spoke with females. A detailed listing of all groups can be found in the Appendix. For both goat and irrigation projects, focus groups comprised two key activities: First, participants took part in a structured matrix ranking activity (based on the FAO's Livelihood Matrix tool), where they were asked to self-rate changes they had experienced in key outcome-linked areas ranging from income generation to women's empowerment—either since the

start of their participation in the project in question (for beneficiaries) or in the past two years, for non-beneficiaries (a full list of matrix criteria can be found in the Appendix). In the second part of the focus group, evaluators asked participants a series of open-ended questions related to each matrix response area, and documented narrative answers. Each focus group was led by a local facilitator, an Oxfam evaluator, and a local translator; local staff was trained by Oxfam evaluators prior to the start of field work.

- **Semi-structured interviews** were also held with selected stakeholders, so that evaluators could gain further insight into programme components and outcomes at the individual beneficiary/stakeholder level. Oxfam evaluators carried out interviews directly, through the aid of local translators where needed, using structured questionnaires—however interviewees were also encouraged to add additional response content/comments where pertinent. Interviewees included individual beneficiaries, government extension workers, ADMARC staff and ADMARC advocacy campaign leaders (for the irrigation intervention), and Oxfam programme staff in the Blantyre and Lilongwe offices.
- **Individual Profiles** formed a final element of the evaluation; here, Oxfam communications staff (with the aid of a translator) followed selected beneficiaries over the course of a working day, documenting their activities through photography and journalistic interviews. This qualitative process aimed to capture the outcomes and impact of the program through the eyes of beneficiaries.

Sample Selection

For the goat intervention, evaluators were able to identify beneficiary and comparison samples relatively easily. To focus the evaluation more precisely, the team opted to analyse beneficiary samples supported by a single CBO; here, CBO staff had kept reliable goat distribution lists that evaluators used to generate systematic random samples for the evaluation activities described above (samples were stratified by gender for focus groups). For non-beneficiaries, CBOs had also kept ‘waiting lists’ of eligible goat recipients who met programme criteria but had not yet received project livestock. While selection of non-beneficiaries from this cohort did present some risks of bias (i.e. non-beneficiary self-selection for waiting lists, and self-reporting that favoured the programme in order to improve chances of goat receipt), evaluators nonetheless felt that this method was the most effective means of isolating a valid comparison group with near-identical socio-economic criteria and geographic location to that of the beneficiaries.

For the irrigation intervention, Oxfam asked irrigation committees to randomly select beneficiaries for focus group participation, stratified by gender. However, in the absence of a similar irrigation ‘waiting list’, evaluators had more difficulty finding a credible random sample of non-beneficiaries who shared socio-economic criteria with scheme participants and were located within the same communities. Ultimately, evaluators were forced to rely on community irrigation committees to identify and recruit available non-beneficiaries. In many cases, this resulted in a biased selection process as community members were chosen because they were known to the committee or because they happened to be “in the area at the right time”—rather than yielding a truly random sample that would be directly comparable with the beneficiaries.

2.3.3 LIMITATIONS

In addition to the sampling error described above, several other limitations affected the quality and rigour of data collected (but were not, in the evaluators' view, substantial enough to compromise the overall quality of the evaluation):

- A lack of quantitative background data for the evaluation sites made comparative analysis difficult. For the goat intervention, while partner NGOs/CBOs maintained good records of goat recipients and wait-list members, their records of actual goat distribution and breeding were scarce. As a result, evaluators were unable to obtain key information concerning the number of goats distributed, number of kids passed on, number of offspring sold, etc. The absence of these results hampered evaluators' efforts to get a clear overall numerical picture of the intervention's success. For both projects, a shortage of good baseline data for the locations visited forced evaluators to rely on respondents' *ex post* recollections of their prior livelihood status—a somewhat unreliable process—rather than simply comparing new reported responses with previously documented *ex ante* results.
- The timing of the evaluation coincided with the peak of the annual 'hungry season', where agricultural production and food security are at their lowest and most local community members are struggling to feed their families. As a result, evaluators were concerned that respondents' adverse circumstances might bias their responses toward the negative, prompting them to portray their overall livelihood status as uniformly poor—rather than the more likely reality of cyclical fluctuations.

However, despite these constraints and sampling errors, evaluators still felt that the response data collected through the methods described above was reasonably clear, credible, and relevant enough to permit a good general evaluation of the program. Selected consolidated quantitative and qualitative findings are presented below, and grouped by project outcome.

3.0 KEY FINDINGS

3.1 GOAT INTERVENTION OUTCOMES

[Summary Box Removed]

3.1.1 INCREASED AGRICULTURAL PRODUCTION, THROUGH MANURE USE

Central to the strength of the goat intervention is the notion that project animals are versatile assets. In addition to breeding offspring for sale, home use and/or consumption, goats ideally also produce sizeable quantities of manure which can be used to enhance soil fertility and, by extension, crop yields. As a result, evaluators set out to assess whether project goat manure was in fact an effective means of boosting farming output, and whether beneficiaries who used it were able to raise their production by at least 50%--an anticipated project outcome.

Initial analysis of survey results suggested that this was the case. 98% of beneficiaries and 100% of non-beneficiaries reported producing maize as their primary household crop (with proportions of sale/home use varying across samples), however 62% of all surveyed beneficiaries reported that their crop yields had increased since joining the goat scheme while only 24% of non-beneficiaries reported the same result for the proxy comparison period of 2006 – 2008. *Ex post* data on mean maize yields support this distinction between the samples: beneficiaries, on average, produced fourteen 50-kilogram bags of maize in 2008, while non-beneficiaries only produced 9.6 bags on average. A lack of clear *ex ante* production data unfortunately precluded precise analysis of the extent of production growth over time--making it difficult to verify whether the project was moving successfully toward its 50% growth target.

[Photo Removed]

Nonetheless, other complementary results suggest that this may be the case. In addition to boasting a higher proportion of farmers with increased crop yields, the beneficiary sample also had a higher percentage of members reporting manure use in crop production: 83% of beneficiaries had used goat manure in farming since receiving their animal from Oxfam and partners, while only 41% of non-beneficiaries said they'd used animal waste (from other livestock, or chickens) to enrich their farmland in the past two years. While these production and manure use findings are not necessarily linked, the sizeable differences between each sample's data, and the strong positive results for beneficiaries in both areas, suggest that the two factors may be associated with each other.

Table 1: Comparative Crop Production and Manure Use (n = 154; n = 147)

Survey Question: "Since you received a goat/since 2006, has your crop production increased, decreased, or stayed the same?"

Survey Question: "Has your household used manure for crop production since you received a goat/since 2006?"

[Figure Removed]

Strengthening this assertion is the finding that among the sample subsets of beneficiaries and non-beneficiaries who self-reported being active manure users, the differences persist (see Table 2). Controlling for manure use, 72% of beneficiaries cite production increases since joining the goat scheme, while only 32% of non-beneficiaries report similar gains since the proxy comparison point of 2006. With almost two-thirds (63%) of non-beneficiaries obtaining their manure from non-goat household sources (ie. chickens, cows, etc.), this result suggests that goat manure could be a greater contributor to soil fertility—and, by extension, to production growth—than other manure types.

Table 2: Increases in Crop Production Among Manure Users (n = 92)

[Figure Removed]

Focus group findings reinforced this notion, with most beneficiaries believing that project goat manure use has been a contributing factor to greater production on their household land tracts:

- Many Kapichi beneficiaries commented that manure helped boost yields as it enriched soil quality and reduced amounts of fertilizer needed.
- In Bvumbwe, most male beneficiaries cited substantial improvement in household crop production since the introduction of goat manure into the farming process.

- “Before goat manure, I could only harvest 4 bags of maize from my land. But the first year after I got my goat, I was able to produce 7 bags of maize [with the manure it provided]. This year I added fertilizer and doubled that amount to 14 bags” (male beneficiary, Kapichi).

While manure from Oxfam-funded goats has likely had a positive effect on beneficiary farm output, it also appears that this project element has created a wider impact in local communities:

- In Kapichi, male beneficiaries expressed a belief that **local women have become more empowered** since the introduction of goats into the community. They noted that newly-available manure has enabled household gardening to be expanded—permitting a rising number of women to take part in these farming activities and earn income that they can manage independently of men in their households.
- One Kapichi beneficiary noted that **farmers from other areas are now approaching him to request goat manure** for their own land, which they prefer to cow/chicken manure. By keeping some manure and selling part of it, the farmer is able to boost his production and his income on a more sustainable basis.

[Case Study Removed]

Many non-beneficiaries, meanwhile, cited a lack of good manure as a key impediment to production growth:

- In Bvumbwe, male non-beneficiaries mentioned that a **lack of manure-producing livestock** had contributed to their **poor harvests**; in the past two years, yields of maize, cassava and other vegetables had been too small to warrant sale. While fertiliser shortages and bad weather also played a role in these farmers’ production woes, most respondents felt that the absence of manure had contributed to the problem substantially, and that reliable access to goat manure would mitigate the issue.
- Male non-beneficiaries in Kapichi complained that a **lack of access to manure** (which, they believe, should be used in conjunction with fertiliser to keep soil arable) has led to an **over-use of fertiliser** by itself and a degradation of soil quality as a result. Commented one beneficiary: “People who mix manure into their fertilizer get higher crop yields, especially with maize and mustard...manure helps keep moisture in the soil”.
- In Kapichi, female non-beneficiaries noted that **manure is scarce** among those who don’t own animals—and can generally only be acquired from family or friends who own livestock.

During the course of their conversations with beneficiaries and non-beneficiary farmers, evaluators did also note that crop production is a complex activity which depends on multiple variables. In addition to manure, good fertiliser and good seeds clearly play important roles in boosting crop output, and many respondents mentioned that finding adequate quantities of these inputs—and arriving at the right combined mix of fertiliser and manure—were crucial to ensuring soil productivity but also difficult to achieve. Extension support and training on improved farming techniques were also mentioned as key contributors to increased yields.

In many communities, it was noted that ADMARC should ideally be helping in this regard by providing access to subsidised inputs through the Government Subsidy Programme, a national initiative where coupons for purchasing discounted fertiliser are distributed to communities (through government extension staff and village chiefs). However, beneficiaries reported that the impact of this programme was very mixed, with results largely depending on whether they had actually been selected to receive coupons, whether they had access to an ADMARC depot with fertiliser and inputs in stock and whether they had adequate access to cash to buy the subsidised fertiliser.

In some instances, the combination of goat distribution and coupon distribution coupons had enabled beneficiaries to improve their access to fertiliser. However other community members had less positive experiences. Female non-beneficiaries in Bvumbwe, for example, noted that in their community ADMARC is located quite a distance from their village—and even if they're able to travel to the local depot, they face long waits before being able to buy fertiliser and often resort to bribery to get the inputs they need. Men in Kapichi noted that ADMARC inputs are typically only available at the start of the growing season, and that they quickly run out, leaving many farmers unequipped (see Section 3.2.2 for more findings on ADMARC's role in promoting agricultural production and food security in irrigation project communities).

In short, then, these and other non-project factors have likely also contributed to non-beneficiaries' comparatively lower production output—and may have affected beneficiaries' productivity in some cases as well. Overall, though, focus group comments suggest that beneficiaries, by virtue of their access to manure, have likely been more insulated from these challenges and better equipped to increase their production even when outside inputs are scarce. If true at the population level, this finding suggests that Oxfam-supported project activities have been successful at creating genuine, positive “Stories of Change” in this outcome area.

3.1.2 INCREASED HOUSEHOLD INCOME FROM GOAT SALE

[Summary Box Removed]

In addition to boosting agricultural production, the goat intervention also aims to raise beneficiaries' annual household incomes by 50%, through the sale of kids bred from project-distributed does. In a best-case scenario, the Oxfam goat is viewed as a 'sustainable asset' capable of producing multiple offspring—which bring steady, reliable, and increasing income to a household over time. However, like any income-generating activity, many factors play a role in determining the economic viability of goat breeding for sale: access to food and health care for the animals, access to markets for sale, and good knowledge of market pricing mechanisms are only a few of the many 'moving parts' that can affect this project component. As a result, through surveys, focus group discussions, and individual interviews, evaluators probed in depth to understand the multiple ingredients required for successful goat sale that can lead to higher annual incomes. The team sought to determine whether project activities had in fact been effective in their aim to raise yearly beneficiary earnings by 50%, and if so, what Oxfam's role in the process had been. Where relevant/observable, evaluators also examined the wider impact of activities related to goat sale on beneficiary communities.

[Photo Removed]

Initial household survey results were encouraging, with polled beneficiaries reporting a mean 70% increase in annual incomes, from an average of US\$122 (equivalent) at the *ex ante* comparison point (the most recent year prior to goat receipt, usually between 2005 and 2007) to an average of US\$207 (equivalent) in 2008. Meanwhile, surveyed non-beneficiaries only reported a 59% rise in annual incomes during the same approximate period (between 2006 and 2008).

Table 3: Comparative Mean Annual Household Income (n = 125)

[Figure Removed]

Sample/Time	Mean (USD/year)	Standard Deviation (USD/yr)
Beneficiary Income Time 1 (2005/2006/2007)	\$130.08	\$181.74
Non-Beneficiary Income Time 1 (2006)	\$103.39	\$147.69
Beneficiary Income Time 2 (2008)	\$211.29	\$276.05
Non-Beneficiary Income Time 2 (2008)	\$164.57	\$229.43

Evaluators did note a relatively broad distribution of results for both sample groups, manifested in sizeable standard deviations which indicate some overlap between the two samples. This finding suggests that goat distribution to beneficiaries may not necessarily be the main driver of income growth at the population level. Some non-beneficiaries may have also experienced similarly large income increases over time without project assistance, and some beneficiaries may have witnessed only modest rises in their annual earnings, despite receiving Oxfam goats. Nonetheless, aggregated focus group matrix data seemed to support the notion that beneficiary income increases exceeded those of non-beneficiaries over time. A mean 36% of beneficiaries across four groups reported that they were “better off” in the area of income earning since joining the scheme—but only a mean 23% of non-beneficiaries reported the same.

Table 4: Aggregate Comparative Income Status (n = ± 76)

Focus Group Question: “Since the start of the project/since 2006 do you feel your income status has become better off, worse off, or remained unchanged?”

[Figure Removed]

However, when evaluators disaggregated the same data by sex, they discovered a different picture: Among females only, 37% of beneficiaries reported being “better off” in the area of income, but a slightly larger proportion—41 percent—reported being “worse off”. Meanwhile, a comparatively higher number of non-beneficiary women (46 percent) reported positive changes in their income over time. These results may suggest that income gains may have accrued unevenly in local communities, and that male goat recipients may be succeeding more readily than female recipients in

leveraging their animals for income (a finding which could be linked to many factors, including differing market attitudes toward men and women, differing access to goat husbandry inputs/goat care by gender, etc.) However, sampling error may also explain these findings as many female beneficiaries taking part in Bvumbwe focus group discussions appear to have been prompted to attend the groups by local CBO staff (despite efforts to ensure random sampling), on the basis of their common experience raising project goats which died before they could generate any income. If this reality underlies the results displayed in Table 5, it has likely biased the chart's outcomes—but may also point to a need for better veterinary care, a point raised by many beneficiaries who felt that VLTs were underqualified and drugs not available when needed.

Table 5: Comparative Income Status – Females (n = ± 37)

Focus Group Question: “Since the start of the project/since 2006 do you feel your income status has become better off, worse off, or remained unchanged?”

[Figure Removed]

Evaluators also found that aggregate increases in beneficiary income may be linked to factors other than new-found opportunities to sell the offspring of project goats—for example, local piecework on tea estates, or the use of goat manure to improve crop yields and agricultural income, as described above. Indeed, closer analysis of survey responses (see Table 6) revealed that most beneficiaries, despite having received goats through the project, cited agriculture as their main income-generating activity (or IGA). Survey data also showed that among beneficiaries, these “other” IGAs like agriculture brought in more household income per year than the direct sale of goats or goat products: an average of US\$175 (equivalent) in 2008, compared with an average of US\$80 (equivalent), or roughly half that amount, for the direct sale of goat offspring, meat, or project goats themselves. Probing deeper, evaluators found that only 37% of polled goat recipients have actually generated offspring for sale since the time of goat receipt, beyond the initial kid they were required to pass on. Yet among that minority of eligible sellers, 58% had sold at least one animal for money—an encouraging sign.

Table 6: Comparative Primary Income-Generating Activities (2008) (n = 153)

Survey Question: “What has been your main income-generating activity since receiving a goat/since 2006?”

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Taken together, then, these results suggest that direct goat sales may still be an emerging income-generating activity for beneficiaries, but that household use of goat products like manure to enhance crop yields and sale opportunities may play a more central role in raising income levels. For beneficiaries who do sell their goats, however, this sale still brings much-needed additional household income ranging from US\$10 – 50 per full-grown kid. With aggregate annual earnings averaging around US\$200, even the sale of a single kid at the lowest cited market rate can boost household income by 10%.

Focus group results supported these findings, with many beneficiaries praising project goats as an effective income generation strategy, even if this activity was secondary to agriculture in many communities and took time to yield benefits:

- Some male beneficiaries in Kapichi believed that the sale of goats has helped them earn **good money in a short amount of time**: “With tea-plucking [the primary alternative IGA], you have to wait until the end of the month to get paid. But if you have your own goat, you can sell it whenever you need to and get over [US\$25] instantly. It’s not hard to find buyers”.
- Another male Kapichi beneficiary commented on the **longer-term asset advantages** of goats, relative to agriculture: “A goat doesn’t go rotten; you don’t have to sell it right away. You can wait until the right time when prices are good. Vegetables, on the other hand, go rotten quickly...so you’re forced to sell them fast, and often you don’t get a good price”.
- Other Kapichi beneficiaries observed that goat husbandry is ultimately **more lucrative than other IGAs**, mainly because of the ongoing/long-term **benefits derived from manure**, which can be used to increase household crop yields and/or quality—both of which bring in more income.

In addition to being effective short-term IGAs, beneficiaries noted that the sale of goats and goat products has likely had a broader, long-term positive impact on their income security and social well-being:

- In Bvumbwe, a beneficiary reported being able to sell meat from her goats and then buy a new kid with the cash generated through the sale—a result which supports the notion that goat can be a **sustainable long-term income generating strategy**.
- In Kapichi, many beneficiaries proudly spoke of their **new ability to pay for school fees** after selling goat offspring. One participant reported that he put two children through secondary school with funds generated from goat sales alone, and that these children now contributed to household income generation.

- Other Kapichi beneficiaries cited the **purchase of medication for ill household members** as a key secondary use of income from goat/goat product sales—suggesting potential social spin-off benefits from goat sales for PLWH/A.

Indeed, many beneficiaries noted that goat ownership and the income it generated could help PLWH/A in a range of ways: female beneficiaries in Kapichi observed that the non-labour intensive/time intensive nature of goat husbandry (relative to piecework) enabled some beneficiaries to earn “home-based income” while caring for PLWH/A concurrently. Male beneficiaries in Bvumbwe mentioned that surplus income could be used to buy food for the ill individuals, observing that anti-retroviral drug users often have big appetites. Additional beneficiaries affirmed that goat husbandry was also an ideal IGA for PLWH/A themselves, since it was much less physically demanding than field work or other labour. Female beneficiaries in Kapichi commented that in the rainy season goats have plentiful fodder available—and in the dry season grass can often be found—so PLWH/A didn’t need to invest substantial time or effort feeding the animals.

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In comparison to these outcome and impact-level advantages cited by beneficiaries, non-beneficiaries spoke of their frustration at a lack of solid income-generating opportunities, and expressed a strong desire to receive goats from the project—which they believed would serve as a lucrative income-earner through the reliable production of offspring.

- Male non-beneficiaries in Bvumbwe reported that they relied mainly on *ganyu*, or **piecework**, to make ends meet, but that this activity was only sporadic and thus **failed to generate sufficient income**. Some mentioned raising small animals like guinea fowl, but commented that these animals frequently died or could not be sold at good market prices. In contrast, most non-beneficiaries believed that goat ownership would enable them to boost their incomes substantially, because goats are more hearty animals and their kids fetch higher market rates when sold.
- In Kapichi, male non-beneficiaries conceded that they **lacked a real stable income source**. Most subsisted on household crops farmed with poor inputs. Some worked on local tea estates, but complained of competition against a large number of other labourers for a small number of jobs. All, however, felt that goat ownership would help them improve their incomes, as manure could be used for farming—perhaps even to double current crop yields—and offspring could be sold for additional cash.
- Female non-beneficiaries in Kapichi complained that a **lack of good income sources** have **forced families to borrow money** in order to pay their children’s school fees. A particular fear is that children will be sent away from school for lack of fees, and that girls in particular will feel they have no choice but to enter into early marriage, child labour or prostitution. In general, most female non-beneficiaries felt trapped in a cycle of poverty which stems from a lack of investment capital for fertilizer/animals.

These results suggest that communities which have received goats are likely faring much better in many areas--income security, care for PLWH/A, women's empowerment--than those which have not. The findings also hint that sale of goat offspring likely plays a part in these beneficiary communities' higher incomes and better standards of living—an encouraging potential “Story of Change”—even if it is not presently a principal contributing factor (although this small-sample result should be verified on a larger scale to confirm whether it applies uniformly at the population level).

3.1.3 INCREASED USE OF GOATS AS HUNGRY-MONTH COPING STRATEGY

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Ideally, a goat that provides offspring for sale and manure for agricultural production enhancement should represent a strong solution to food shortages and overall food insecurity. Indeed, this is one of the goat project's main goals: By the end of implementation, it aims to have 80% of participating households using goats as a primary resilience/coping strategy during hungry months (which typically coincide with Malawi's dry season that runs from Aug/Sep through Feb./Mar.)--either by selling offspring for cash, by using manure for agriculture, and/or by consuming meat as part of the household diet. As a result, evaluators focused part of their assessment on determining whether the project was making good progress toward this outcome—ie. whether efforts to promote goats as a coping mechanism have been effective in the short term, and whether they have also contributed to improving beneficiaries' overall food security (a longer-term anticipated project impact). Evaluators also aimed to determine which, if any, of these results might be associated with Oxfam's support.

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After analysing survey and focus group data, evaluators found that project goats are likely helping beneficiaries survive the often-difficult hungry season, by giving beneficiaries the chance to earn income through the sale of goat meat and/or offspring. Initial analysis of survey results showed that 80% of sample goat recipients believed goat ownership has helped them cope better in times of hunger, with “production of items for home use”, ie. meat for household consumption (or manure for farming), as the leading coping response (cited by 41% of respondents).

Table 7: Perceived Benefits of Goat Ownership as a Hungry Month Coping Strategy (n = 71)
Survey Question: “How has goat ownership helped you cope better in times of food insecurity?”

[Figure Removed]

When asked in a related question whether they feel their overall food security (defined as ‘number of months per year with adequate food access’) has improved since they received an Oxfam-funded goat, 64% of polled beneficiaries reported feeling more food secure over time while only 22% of non-beneficiaries felt similarly during the comparison period of 2006 – 2008. Focus group matrix results supported these survey findings, with 57% of beneficiary participants citing that they are “better off” in terms of food security since project participation—but only 18% of non-beneficiaries reporting the same.

Table 8: Comparative Changes in Perceptions of Food Security (n = 154)

Survey Question: “Do you feel your food access (number of months with adequate food supply) has increased since joining the project/since 2006?”

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Naturally, the relatively higher proportion of beneficiaries citing increases in their food security could be linked to a wide range of factors beyond the mere use of Oxfam goats as described above. Evaluators also noted that better access to maize for purchase from ADMARC (among whose key intended functions is the stockpiling and sale of maize at affordable rates during hungry months), or an increase in non-agricultural IGAs that pay decent wages during the dry season can also play (and have played) a role in reducing hunger. However, focus group comments suggested that goat ownership has likely contributed to beneficiaries' improved ability to cope, even if it does not completely eradicate seasonal hunger.

- Many beneficiaries mentioned that their new ability to sell kids to raise cash for healthcare or education makes them **less likely to sell part of their annual maize crop** under pressure, during times when prices are low. For many households, the maize crop is one of the only assets of value, but it is also the only source of food. The sale of maize at below-market prices following harvest—and the subsequent need to purchase more expensive maize in the hungry months—is a vicious cycle affecting many food insecure smallholders; the new existence of an alternative asset for sale appears to have helped break this pattern and improve resilience.
- In Kapichi, beneficiaries noted that in years prior to the project's start-up, they typically endured 8 months of food shortages from August through March. Now, however, through the **sale of goats** (instead of maize) for additional cash, **hungry months have generally been reduced** to 4 months, from November through February only.
- In Bvumbwe, beneficiaries also reported **selling goats during hungry season stress/shock periods** to fund food purchase, school fees, clothing and health care. They also noted that overall hungry months have declined since their receipt of goats from Oxfam.

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In contrast, non-beneficiaries reported very little change over time in their ability to cope with food shortages.

- In Kapichi, female non-beneficiaries stated that *ganyu* (or **piecework**) is their **main source of hungry month income**, but that in some cases they are not even paid cash for work—but instead only receive a small quantity of maize husks as compensation.
- Male non-beneficiaries in Kapichi believed that local peers who owned Oxfam goats were better equipped to cope during food shortages, because they had an asset to sell in times of stress—whereas **non-owners had few shock mitigation options**.

Further reinforcing the case in favour of goats as a coping mechanism were reports from both beneficiaries and non-beneficiaries that ADMARC, a complementary support structure, is failing to adequately help local farmers in times of food insecurity: ADMARC is supposed to sell maize at fixed prices during the hungry period when demand sends prices soaring in the open market. However in practice, this maize is rarely available and difficult to access.

- Female non-beneficiaries in Kapichi reported that they considered **buying maize from ADMARC to be very difficult, as local demand often far exceeded supply**: Some community members have wounds from scrambling for maize at the local depot; in other instances children were pushed and injured.
- Meanwhile female beneficiaries in the same community expressed frustration that ADMARC sells maize to **vendors** who then **sell it back to the community at higher prices** which many cannot afford (vendors buy maize from ADMARC for \$0.37/bag but then resell it for \$0.70/bag). Others complained that ADMARC scales were inaccurate, such that bags often contained less maize than the value purchased by beneficiaries.

These and other comments suggest that in light of the problems most community members face when trying to access ADMARC maize, beneficiaries' cited increases in food security over time may not be linked to ADMARC support, but instead to other strategies like goat ownership. However, evaluators also ultimately discovered that hungry month coping—and longer term food security—are complex processes, and that beneficiaries and non-beneficiaries generally employ a wide range of strategies in response. While goat ownership likely contributes to improved coping and food security, survey data showed that other activities like part-time labour are presently more prevalent coping strategies.

Table 9: Comparative Coping Strategies – Hungry Months (2008) (n = 150)

Survey Question: “What is your main coping strategy during hungry months?”

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Piecework remains the foremost coping strategy among both sample groups, followed by “other IGAs”, which typically include small commerce or trades. Only 4% of beneficiaries reported the sale of goat products as their primary coping mechanism—suggesting that while goat ownership forms a key part of hunger reduction, it is still an emerging solution. Malawi programme staff did stress the need to revisit this outcome once more time had passed, expressing the view that goat sale/home use may become a more dominant coping strategy in the longer term. John Nyirenda, Oxfam

Malawi Programme Manager, observed that many beneficiaries may simply be presently breeding and building up the number of goats they owned as assets for future sale—and/or saving them for use in the event of a severe shock such as drought or crop failure.¹⁴ Beneficiaries corroborated this point, with some commenting that while *ganyu* was a good response to small problems, goats could be sold “to solve larger ones. Evaluators noted, as result, that the use of goats as a primary coping mechanism might increase in times of more extreme hardship and that this may help avert a repeat of the food crisis that struck Malawi in 2005.

Overall, though, evaluators concluded that at present goat distribution has at least partially helped beneficiaries mitigate the effects of a lengthening hungry season and overall rising food insecurity, by providing an alternative to *ganyu* or the sale of household maize—and by enabling recipients to boost farm production and ‘buffer income’. Naturally the longer-term success of this project component (and the project overall) depends on several key assumptions—namely that beneficiaries have the skills and resources to keep their goats healthy and breeding, that the goats produce enough manure to fertilise household land, and that market prices for goat products are robust. However, if Oxfam and partners work (to the furthest extent of their own influence) to ensure that these conditions are met, then this project has the potential bring tangible benefits to many more local communities if it is scaled up.

3.2 IRRIGATION INTERVENTION OUTCOMES

3.2.1 INCREASED AGRICULTURAL PRODUCTION

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¹⁴ Interview with John Nyirenda, Oxfam Malawi Programme Manager, 2 Feb. 2009.

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Given agriculture’s prominence in Malawi’s national economy and local community life, a project devoted to its enhancement through irrigation makes good sense. For many Malawians, small-scale farming is already a key livelihoods strategy; enhancing the productivity of current farming efforts can ideally help turn these small low-yield initiatives into year-round, high volume schemes that provide continuous food and income—to the clear benefit of participating communities. In their assessment of this second Oxfam Malawi project, evaluators therefore focused on exploring this link between increased production, input support, market access and the overall project impact goals of increased food and income security. Here too, the team asked whether project activities were effective in helping beneficiaries progress toward anticipated outcomes and impact—and if so, whether/how these achievements might be clearly linked to Oxfam support.

Where increased production is concerned, findings from 12 irrigation focus groups in two irrigation sites (8 beneficiary groups and 4 non-beneficiary groups; scheme sites in Thyolo and Mulanje) suggest that the aggregate “bundle” of project irrigation and support activities (like input provision) are, in fact, likely contributing to greater crop yields among beneficiaries.

Table 10: Comparative Increases in Annual Maize Yields (n = ± 95)

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While both beneficiaries and non-beneficiaries saw their average maize output increase over time, beneficiaries realised a 114% mean growth in output, while non-beneficiaries saw a more modest rise of only 77%. Focus group matrix data support this finding, with 68% of irrigation beneficiaries—but only 58% of non-beneficiaries—believing they are now generally “better off” in the area of overall crop production than at the *ex ante* comparison point (that 32% of beneficiaries

did not feel “better off” may be attributable to some producers’ discontent with wheat crop yield increases over time, which they felt was inferior to extension workers’ promises of growth).

Still, while multiple factors (climate, access to non-irrigation inputs, training, market demand, etc.) can influence production levels, these overall results—when coupled with focus group comments—suggest that the introduction of irrigation canals and Oxfam-funded farm inputs into beneficiary communities has likely played a contributing role in their greater production gains (however, given the programme’s provision of this support as a “bundle”, evaluators were not able to determine whether one particular component likely played a greater role in beneficiary outcomes than other components).

- The majority of Thyolo scheme participants reported that they are **producing more crops** per year since they joined the scheme--as they can now **leverage two harvests per year – one on** their own household plot (which is rain-fed) in the rainy season, and the irrigated scheme plot in the dry season. In Mulanje, beneficiaries have been able to produce three harvests per year, due to improved water management.
- In Mulanje, female beneficiaries reported that **better project inputs** like fertilizer and seeds had enabled them to realise **large production gains**: Some producers were able to triple their maize harvest from three 50-kilogram bags to 12 bags after joining the project.
- Others achieved even greater growth after using Oxfam-funded hybrid seeds, fertilizer purchased through crop sale, and new planting techniques. One beneficiary raised her yield from 1.5 bags to 16 bags of maize, citing a ‘virtuous cycle’ of increasing access to fertilizer as the reason for the jump in output: now that beneficiaries can farm two plots of land, they **sell more maize and earn more cash** that can be used to buy greater quantities of fertilizer—which in turn gets used to **boost plot output further**.
- Female beneficiaries in Thyolo credited Oxfam-funded “**starter packs**” of inputs as a catalyst for production growth, stating that these initial inputs provided a **good starting point for production expansion**, and after one year of production and sale with subsidized inputs the producers were able to buy seeds and pesticides every year.
- Thyolo female beneficiaries also spoke highly of the **project training** they received in **farming techniques**, indicating that this support has also helped them improve their harvest. Commented one producer: “In the past we used to hear on the radio how people can benefit from farming, but we didn’t know it would be us. Since starting on the scheme this has become reality.”

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Non-beneficiaries, in comparison, cited a lack of access to irrigated land, inputs, and training as key contributors to less robust production growth.

- Male non-beneficiaries in Thyolo felt that overall production has remained consistently modest over the past two years, mainly due to a **lack of affordable fertilizer**. They also noted that their access to training is limited, so they often fail to learn and adopt new/more efficient farming techniques.
- Female non-beneficiaries in Mulanje complained that **rain fed plots** alone **do not enable them to produce enough food**—and that they would eagerly join an irrigation scheme if given the chance.

Interestingly, these results show that while the construction of irrigation canals has, in itself, likely helped increase beneficiary output by facilitating year-round farming, the provision of “starter” farming inputs has also likely played a large role in output growth. As in many projects, this finding raises a question of sustainability: If inputs like fertiliser are expensive but starter packs are only provided at the outset of the project, will beneficiaries be able to finance their own input purchases in the longer term? The Mulanje beneficiaries’ comments above hint that in some cases, producers have been able to earn enough cash after one season (or, in some communities, two seasons) of input provision to fund their own follow-up purchase of fertiliser and seeds. However, many beneficiaries commented on the high retail prices of fertiliser and expressed concern about their own ability to purchase fertiliser bags at full price—and the longer-term impact this could ultimately have on production. While some efforts have already been made to enhance beneficiaries’ access to subsidized ADMARC inputs (see following section), the project team may still wish to explore the viability of longer-term direct project subsidies more thoroughly before proceeding with scheme scale up—or, at the least, observe farmers’ ability (or inability) to self-finance input purchase over a longer time frame before committing to a final stance on input provision.

Overall, though, it appears that even the short-term provision of inputs has likely been an effective strategy for boosting production—and for increasing food security, a wider impact goal of the project. While it seems that food access has been gradually improving over time for both sample cohorts, beneficiaries at both scheme sites still reported much greater increases in their months of maize access per year since joining the project than did non-beneficiaries (who were simply asked to compare 2008 levels with 2006 levels). Matrix data complemented these findings, revealing that 71% of irrigation beneficiaries felt they were “better off” in the area of food security since joining the project—while only 25% of non-beneficiaries felt similarly for the comparison period of 2006 – 2008.

Table 11: Comparative Yearly Months of Maize Access – Thyolo Irrigation Scheme (n = ± 56)

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Table 12: Comparative Yearly Months of Maize Access – Mulanje Irrigation Scheme (n = ± 39)

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- In Mulanje, beneficiaries reported acute food insecurity prior to project start-up, with most households having sufficient food only for one-third of the year, on average. *Ex post*, however, reported **access to food has more than doubled**.
- Male beneficiaries in Thyolo, where pre-project food insecurity was slightly lower, reported that before the scheme, 6 to 8 months of the year were hungry months, with most households only food secure from March through June. But now, since joining the scheme, **most participants have seen their hungry period reduced** to 3 months, and enjoy relative food security for 9 months of the year.
- Female beneficiaries in Thyolo reported a similarly large change: Before the scheme, the majority of respondents had only 4 - 7 months of access to local maize crops. Now, **with year-round farming, food access had risen** to 9 months, and in some cases to 12 months.
- In contrast, male **non-beneficiaries** in Thyolo did not believe that their food security had increased over the past two years; most felt that **food access was consistently poor**.

Evaluators did, however, note that the positive results witnessed by beneficiaries were not uniform across all households taking part in the scheme. As the above-mentioned matrix results reveal, 30% of beneficiaries still feel “worse off” or that there has been “no change” in their level of food security since joining the project. Some male beneficiaries in Thyolo reported consistently low levels

of food access even after starting their scheme farming, due to a lack of affordable inputs and market opportunities. These findings suggest that project efforts to promote the availability of cheap maize for purchase during hungry months and cheap inputs for farming (described in the following section) are likely worthwhile. Nonetheless, it seems that these views are restricted to a minority of scheme farmers; most feel that the project has positively impacted their sense of food security.

Project support to boost production may have also positively impacted participants in another key area: women's empowerment. During focus group discussions, female beneficiaries in Thyolo conveyed their belief that women's decision-making capacity had improved since they had started working together on the scheme. Many felt that the scheme had enabled them to apply their farming skills more effectively throughout the year and contribute more actively and directly to household income--which gave them increased decision-making power in turn. However, non-beneficiary women in Thyolo felt that men still make most of the decisions in their homes and that women are only able to contribute occasionally and they cannot easily question the man's role as head of the household. While these assertions varied somewhat among respondents (some non-beneficiaries did feel greater empowerment, while some female scheme farmers believed no gender role changes had occurred), they do suggest that Oxfam-backed efforts to increase production have likely raised the status of local women—a compelling “Story of Change”.

3.2.2 INCREASED ACCESS TO ADMARC MAIZE/INPUTS, THROUGH ADVOCACY

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Given the key role of good inputs in improving agricultural production—and in light of some beneficiaries’ concerns about high input prices and enduring food insecurity—the project’s aim of promoting access to affordable ADMARC seeds, fertiliser, and maize seems logical. Less clear, however, is whether Oxfam-supported campaigns to retain ADMARC’s ‘social functions’ have actually been effective, or have had a wider impact on local communities’ food and income security. Has Oxfam directly played a role in changing government policy toward ADMARC, or have government decisions been made unilaterally (or in response to others’ efforts)? As a result, has the number of beneficiaries with access to ADMARC resources increased to the extent that it approaches the project target of 70%? Evaluators asked these and other related questions to determine the effectiveness and impact of this project component, relying on a mix of focus group discussions with beneficiaries and interviews with ADMARC campaigners, staff, and government officials.

Conversations with Oxfam-supported ADMARC campaigners—and with government officials, the targets of these advocacy efforts—suggest that lobbying has proven at least partially effective, albeit difficult to measure. Members of Parliament (MPs) who sit on the Parliamentary Agriculture Committee praised Oxfam’s work to fund and train the local agricultural NGOs which lobby the government on ADMARC issues. Given the high turnover rate of MPs in the Malawian parliament, these committee members felt that Oxfam-supported organizations like CISANET (the Civil Society Agriculture Network) have played a key role in educating incoming MPs about the important social role of ADMARC, and in helping influence policy debates. With parliament itself strapped for resources, MPs have come to rely on Oxfam-backed local partners and their publications for good ongoing data about ADMARC. The Principal Secretary for Agriculture, in a separate interview, agreed with this notion—commenting that he periodically consults CISANET reports as information sources for decision-making. While the MPs noted that numerous factors ultimately influence policy formulation, they believed that the advocacy efforts of Oxfam and partners had contributed in some part to the government’s recent decision not to privatise ADMARC entirely, but to instead transform the organisation into a commercial (but still parastatal) entity that continues to provide subsidised inputs and maize.

Oxfam staff and campaigners shared the belief that their efforts to influence state policy had helped prevent the recently-proposed privatization of ADMARC—and helped enshrine project beneficiaries’ access to cheap inputs/maize. Since the start of its ADMARC campaign work early in the decade, Oxfam has led multiple initiatives aimed at preserving ADMARC’s social functions, including:

- Oxfam-funded research on ADMARC and the social services it provides
- Informational workshops on ADMARC for national MPs
- Nation-wide media campaigns to raise awareness about ADMARC’s importance among the general public
- Meetings for/training of national agricultural NGOs to coordinate advocacy strategies on ADMARC issues

While noting that good advocacy involves many parties, and that the direct effects of advocacy campaigns are always tough to gauge, Oxfam and its partners nonetheless felt strongly that these types of activities had been effective in influencing the Finance Minister’s statement on ADMARC in his 2007-08 budget address—wherein he confirmed that prior plans to privatise ADMARC would not in fact move ahead. “Of course, many groups were lobbying the government on ADMARC at that time,” explains current Oxfam Advocacy Manager Shenard Mazengera. “But Oxfam has been one of the most vocal and active organisations in the lobbying arena. As a result, even though it’s difficult to measure concretely, we do feel that our activities played some part in the decisions that were made....Often you’ll see that a Minister or parliamentary committee has incorporated Oxfam advocacy text word-for-word into their policy statements. This is a huge achievement for us”.

Ultimately, evaluators agreed with most interviewees’ assertions that project-backed ADMARC advocacy is a difficult activity to monitor and evaluate—mainly due to the wide range of factors influencing policy-making, and the lack of a real tendency for government to attribute its own policy decisions to specific outside actors. Looking ahead, project staff may wish to explore more concrete ways to capture and document advocacy work—through cataloguing of media activities/mentions, tracking of interactions with government officials, or other means. Overall, though, given the length, high profile, and broad range of Oxfam involvement in advocacy to retain ADMARC’s social function, it seems likely that the project has contributed at least partially to the government’s decision against the end of subsidised inputs and maize.

Yet even if the project’s advocacy efforts have been completely effective, evaluators found it difficult to determine whether the decision to continue affordable input/maize provision has actually had an impact at the beneficiary level. Where access to affordable inputs is concerned, beneficiaries offered mixed reviews about ADMARC.

- On the positive side, the majority of female beneficiaries in Thyolo reported receiving ADMARC **input subsidy coupons** via village committees. Coupons were used to purchase cheaper fertilizer, which in at least one case enabled a doubling of harvest amounts.
- In Mulanje, many male beneficiaries also reported getting coupons, and praised ADMARC for opening of a **temporary local fertilizer** depot where the coupons could be used. Female beneficiaries in Mulanje concurred that the opening of the temporary ADMARC depot has improved access to fertiliser.
- However, in Thyolo a **lack of nearby depots** was cited as a key problem. Many male beneficiaries contended that ADMARC has not helped them access inputs mainly because its sole depot (and point of sale) in the area is “far away from us”, at a distance of 8 – 10 kilometers. For the minority who did travel to the depot, transportation was costly and tough to obtain. Female beneficiaries echoed this claim, stating that “it takes around 2-3 hours to walk to the [nearest] ADMARC depot”.
- Female beneficiaries in Thyolo also noted **supply shortages** on arrival at ADMARC depots: One beneficiary recalled traveling to three different ADMARC sites, but finding no fertilizer in stock at any location. Other female beneficiaries cited instances of **corruption** at the depots, commenting that it was necessary to pay bribes in order to be allowed to buy the

subsidised fertiliser. As a result, many women paid over US\$14 (equivalent) for a 50-kilogram bag which would normally cost closer to US\$5.

- **Targeting of coupons** was also cited as a problem. Most focus group participants stated that they believed the coupons should be distributed to the “most vulnerable” members of the community, however in practice clan membership or personal ties with village chiefs also played a part in the distribution process. In addition, the intended recipients of coupons could not always raise the cash to purchase the subsidized fertilizer, even at the discounted rate guaranteed by the voucher.

These results suggest that ADMARC’s provision of support seems to vary by district (a possible reflection of its decision to downsize local depots and input provision in the past decade), but that a segment of beneficiaries are still deriving benefits from the provision of subsidised fertilizer, pesticides, and seeds—a positive outcome that might not occur under a privatized ADMARC structure.

In the area of subsidised maize provision (to combat food shortages and boost food security), the results are also mixed.

- Many beneficiaries noted that ADMARC often **lacks a supply of maize** for purchase during the dry season, leaving them to rely on their own irrigation scheme crops or to use money earned through prior household crop sales to buy privately-traded maize at higher rates. Male non-beneficiaries in Thyolo noted while some community members have managed to purchase maize from ADMARC during hungry months, demand usually exceeded supply—so maize was often not available to buy.
- Female beneficiaries in Thyolo cited **safety concerns** at ADMARC depots, noting that demand often outstrips supply to the extent that hordes of would-be buyers crowd the site and many people are crushed. As a result, most women do not buy maize from the depots, particularly if they have small children to care for.
- **Inconvenient location of depots** was again cited by many beneficiaries as a major deterrent to maize purchase. Beneficiaries in Thyolo and Mulanje both complained that ADMARC maize depots were too far away to reach, or that nearby sites which offered fertiliser in the rainy season did not stock maize in the dry season. As a result, some beneficiaries turn to private traders, who typically have maize to offer when ADMARC supplies run low but at comparatively high prices (US\$0.61/kg, instead of ADMARC’s \$0.37/kg rate). Others simply turn to their own irrigation crops (which can, in part, be used as diet substitutes) and to money from greater rainy season crop sales to weather periods of food insecurity—a result which speaks highly of project efforts to boost production, but less favourably of ADMARC initiatives to ensure good year-round food access.

Taken together, these findings indicate that while Oxfam-supported advocacy efforts may have contributed to change at the policy level, the grassroots reality is different. While ADMARC likely fills a gap in the area of input provision for some beneficiary communities, its role in combating food shortages during hungry months appears limited in the communities visited. Naturally, given the observed variations in ADMARC presence between the two project sites, population-level findings may differ from the results found at the Chaoneka site in Thyolo and the Mnembo site in Mulanje. However, project staff may nonetheless wish to consider realigning advocacy efforts to

focus more on ensuring that ADMARC enhances its geographic reach and/or its maize provision during hungry months.

3.2.3 INCREASED ACCESS TO MORE PROFITABLE MARKETS

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Helping communities boost their agricultural output and get affordable inputs are both key steps along the path toward food and income security, but they cannot occur in isolation. Without reliable buyers and lucrative sale prices, local beneficiaries risk producing surplus crops for naught—and will likely fail to realise any monetary gain from increased production. As a result, promoting good market access is another crucial part of the irrigation project’s change model. Here too, the project

team has set clear targets, aiming to have 70% of beneficiary households access markets that offer a profit margin of 30% or greater by the end of the project timeframe. Evaluators inquired in depth about project activities undertaken to achieve both of these outcomes, in order to ascertain whether these Oxfam-supported efforts have been effective methods for increasing market entry/presence—and for achieving the wider anticipated impact of income security, by extension.

In the absence of household survey data or formal record-keeping, quantitative figures on market access and profit margin changes over time were difficult to obtain. Anecdotally, however, focus group discussions revealed that more beneficiaries feel their market access has increased than do non-beneficiaries: 45% of beneficiaries felt “better off” in the area of market access since joining the project, while only 20% of non-project producers felt the same (for the comparison period of 2006 – 2008).

Table 13: Aggregate Comparative Perceived Increases in Market Access (n = ± 95)

Focus Group Question: “Since joining the project/since 2006, do you believe your market access for the sale of agricultural produce has increased?”

[Figure Removed]

Evaluators did note that disaggregation of focus group data by sex yielded somewhat different findings: When responses of female beneficiaries and non-beneficiaries were analysed in isolation, it appeared that while beneficiary females’ response rates remained high—suggesting similar access growth to that reported by beneficiary males—a far higher proportion of non-beneficiary females reported improved access over time. This finding may suggest that the primary differences in market access exist among males, and that non-beneficiary women in local communities have as equal access to market as their beneficiary peers. However, more sex-disaggregated research into factors like market access tendencies, goods sold by sex, etc. (and evaluation among a much larger sample) is required before this result can be generalized to the population level.

Table 14: Comparative Perceived Increases in Market Access - Females (n = ± 55)

Focus Group Question: “Since joining the project/since 2006, do you believe your market access for the sale of agricultural produce has increased?”

[Figure Removed]

Regardless, focus group comments upheld the notion that substantial differences exist between beneficiaries’ and non-beneficiaries’ market access, with irrigation scheme participants enjoying much more favourable outcomes:

- In Mulanje, beneficiaries spoke of **selling wheat and tomatoes on commercial markets for the first time**, following project efforts to encourage their production and promote their sale. Thanks to a relationship between the scheme’s marketing committee and a nearby Mulanje canning factory, the factory now buys tomatoes from all farmers in the area; even producers who are not directly involved in the scheme are able to benefit from this arrangement (although without access to scheme land, their water supply is more limited and their volume of tomato production for sale is smaller as a result). Despite some caveats about payment terms and prices, on the whole, male beneficiaries felt their market access had improved as a result of this project-supported mechanism.
- Female beneficiaries in Mulanje agreed with these observations, confirming that the market for tomatoes is lucrative and noting that the growing relationship between the scheme marketing committee and the factory has resulted in agents from the **canning factory providing producers with seeds and fertiliser**, and advising the farmers on production techniques—both efforts which have **improved market prospects** for local tomato crops. When tomatoes are ready for purchase, the factory further facilitates access by organising a central point of sale where vehicles collect farmers’ produce directly.

- Meanwhile, in Thyolo, beneficiaries reported that they were **able to sell wheat for the first time** after joining the project, and that they were also able to boost their sales of ‘green’ maize (also known as wet maize—a popular snack in roasted/boiled form) and vegetables. In this district, the programme supported the irrigation committee to advertise the new production of dry season maize—an effort which likely motivated private buyers to come into the village to purchase scheme maize during the dry season.
- Female beneficiaries in Thyolo also commented that **working together** on the scheme had **enhanced their ability to bargain for improved prices**. For example, after a rise in fertilizer costs, women were able to negotiate with local buyers for a 2008 rate of \$US0.35 for 5 maize cobs, in comparison with the 2007 price of US\$0.14 for the same quantity.

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In contrast, non-beneficiaries spoke of fewer opportunities to sell their relatively smaller household output, and less favourable market access processes:

- A male non-beneficiary in Thyolo noted that “the [irrigation] scheme gets buyers coming into the village continuously. They’re always buying, year-round. But [because we only farm on rain-fed plots] we **only have one window per year to sell**. It’s hard because everyone is selling their crops at that time, so buyers don’t bother coming into the village and we have to take our produce all the way to the [district] market. It’s time consuming to reach the market, and there’s also a lot more competition there”.
- Other non-beneficiaries in Thyolo echoed these points, noting that without many interested buyers coming into the village during the rainy season, most non-scheme producers **must transport any produce they wish to sell by foot or bicycle** to a market site that’s 3 kilometers from the village. This process takes time, and also limits the quantity of crops that can be brought to market.

Overall, then, it appears that project efforts to build ties with local agricultural processors, coupled with the construction of canals that allow for year-round farming, have likely given beneficiaries a clear market access advantage over their non-scheme peers. However, despite being able to reach more markets during a longer selling season, beneficiaries did report a range of challenges which they felt were hurting their ability to sell produce at its full value:

- In both sites, beneficiaries felt they **lacked sufficient market price knowledge and bargaining power**, and that these shortcomings prevented them from getting good market rates for their crops. Even beneficiaries who sold tomatoes to the Mulanje canning factory complained about low leverage in market negotiations—noting that an absence of competing tomato buyers has generally forced them to accept whatever purchase price the factory offers. In addition, beneficiaries also mentioned that poor payment terms, which

leave producers waiting for up to four months for full payment, are also extremely disadvantageous for smallholders who often require short-term cash to invest in the next planting season.

- **Poor identification of market opportunities** was another problem mentioned by beneficiaries. In Thyolo, producers noted that they'd been informed that Barkressa Grain and Milling would purchase their wheat harvest at promising rates, but ultimately an agreement failed to materialise and the crop was sold for a much lower price than anticipated.
- Female beneficiaries in Thyolo related that a **lack of transport options** limited their range of selling opportunities. They noted that while buyers do come into the community during the dry season to buy their crops, these visits are never scheduled or predictable. However, without vehicles to take their produce to the more reliable weekly markets in the area, they have little choice but to accept visiting vendors' price offers even if their rates are below market value. Female beneficiaries in Mulanje agreed, commenting that although they have a structured marketing committee which proactively seeks out new buyers, their site's remote location effectively limits options to a smaller range of merchants who must commit to traveling into the area themselves—and who often buy for lower prices as a result.
- Male beneficiaries in Thyolo complained of a **lack of marketing coordination** among the producers themselves. Noting that outside merchants' visits are sporadic, the beneficiaries observed that many scheme participants will simply try to offload their entire crop to the first buyer they encounter—often at below-market rates—just to ensure they sell all their produce and earn some income. However, even if a minority of farmers unilaterally sells crops at inferior prices, this ultimately drives rates down for everyone, and all producers suffer as a result.

These comments suggest that while initial efforts to boost market access have made some inroads, some work still remains to be done in this project area. When considering potential options for scale-up, Oxfam and its Malawi team may wish to include more producer capacity-building in future project plans. Implementers may also wish to consider how to improve transport links to outside markets as part of new project delivery—or prioritise communities located closer to major markets/roads for irrigation activities in future.

Yet even if current market access options are limited and prices are below desired levels, beneficiaries still seem to be earning reasonable profits from irrigated crop sales. Collation of mean margins reported during focus groups shows that maize and tomatoes yielded net profits of 20% or higher in 2008—an encouraging results which approaches the overall project target of 30 percent. Naturally, the factors underlying these profit margins may be exogenous to the project, and profit potential does not necessarily translate into higher producer incomes per se; this depends in large part on the quantities of produce sold at these rates. However, the existence of these margins is encouraging, as it suggests that beneficiaries likely have the potential to earn good cash from the sale of scheme-grown maize and tomatoes—and that project efforts to boost maize and tomato sale opportunities are well-directed.

Table 15: Mean Profit Margins – Irrigation Scheme Crops (2008)

[Figure Removed]

Again, a lack of quantitative survey data precluded precise analysis of profit maximisation and income generation among beneficiaries (in a focus group setting, evaluators were unable to ascertain individual crop sale quantities, percent profits earned, and changes in these and overall income levels over time). However, over the course of discussions most beneficiaries affirmed that the project had enabled them to boost overall yearly agriculture earnings—if not by facilitating the sale of high-profit crops then at least by giving them the opportunity to farm two plots of land over the course of the year (their own home garden during the rainy season, plus a scheme tract during the dry season).

- Male beneficiaries in Thyolo noted that their overall **household income has increased** since joining the project, mainly because they can now use crops grown on their household plots exclusively for home consumption, while **scheme crops could be used solely for sale**. Beneficiaries noted that in the past, when they only had access to a home garden, crops from this plot were used for home consumption **and** sale; as a result, quantities sold were smaller and income earned was less.

Non-beneficiaries complained about their comparative lack of flexibility:

- “People on the scheme get to keep their household crops and sell their scheme crops; we don’t have that option” (Male non-beneficiary, Thyolo).
- Female non-beneficiaries in Thyolo agreed: noting the **limited output of their small household plots**, they commented that “we cannot sell anything as there would not be enough [for us] to eat [ourselves]”.

Overall matrix data supported these assertions, revealing that 72% of beneficiaries felt “better off” in the area of income generation since the start of the project, while only 38% of non-beneficiaries felt the same (for the comparison time period of 2006 – 2008). In addition to raising income levels, Thyolo beneficiaries also felt confident that the project had helped improve the frequency and reliability of income generation—key contributors to income security.

- Beneficiaries noted that other income-generating activities, particularly piecework on tea estates (a common vocation in the Thyolo district), were seen to be unreliable and

temporary. Demand for estate labour was seasonal and generally inferior to supply, which meant high competition for a small number of jobs. In contrast, scheme farming was generally dependable and could generate a comparatively large amount of income (up to US\$43 gross) from a single sale of crops (compared with a US\$0.89/day estate labour wage). This ability to **earn a large sum of money on a regular basis** was cited as crucial, because many household and farm input purchases cannot be financed through installments—the full amount needs to be paid all at once.

- Female beneficiaries in Thyolo echoed these sentiments about improved income security, mentioning that scheme cultivation has given them **year-round access to cash for household purchases**; in the past, they noted that few beneficiaries had access to money during the dry season.

The perceived wider positive impact of better market access, higher incomes, and greater income security was mentioned frequently in beneficiary focus groups.

- In Thyolo, male beneficiaries reported using additional scheme income to fund recurrent household purchases (like food and clothing) but also to **finance larger one-time investments** like tin roofing or house construction. In Mulanje, a butcher who also farmed on the scheme was able to build a four-bedroom house with an iron-sheeted roof from scheme earnings; a local carpenter has been able to buy new tools. Some male beneficiaries were able to set aside scheme income as savings to buy fertilizer and other inputs, so that they could self-sufficiently maintain their scheme farming.
- Female beneficiaries in Thyolo echoed this observation, noting that they also generally **use scheme income to buy fertilizer—or even to pay others** to cultivate their rain-fed plots.

These results are clearly encouraging—hinting at the potential for beneficiaries to sustain their own farming activities after an initial injection of project support. However, in light of some beneficiaries’ above-mentioned concerns about high input costs and their inability to purchase fertilizer and seeds, this self-sustainability may be limited to a minority of farmers at present. Indeed, in Thyolo some beneficiaries observed that although the scheme provided much-needed additional income, these earnings were still not enough to meet all their household needs. Still, all noted that without the scheme “we’d be far worse off, since we wouldn’t even have money to buy any inputs for our own home gardens, or any household items. At least with the scheme we can get by”. Evaluators shared this view, noting that despite certain challenges, it appears likely that the irrigation project has enabled beneficiaries to increase their farm production, their access to certain key inputs, their ability to sell in local markets—and their overall food and income security—contributing to a compelling story of community change.

4.0 CONCLUSION AND RECOMMENDATIONS

Key Recommendations:

- **Overall**, Oxfam and partner NGO staff may wish to carry out more regular project monitoring and evaluation (M&E). Stronger M&E will help staff identify project strengths/weaknesses and enhance future planning.
- **For the goat project:**
 - Proactive provision of non-manure farming inputs (specifically fertiliser) may help beneficiaries overcome production challenges and boost their agricultural output (but could also risk creating a dependency among local goat recipients).
 - Closer monitoring of the goat pass-on process and more support for goat housing and veterinary care may improve overall animal health and encourage more beneficiaries to leverage goats as a key income generator and/or hungry-month coping mechanism.
- **For the irrigation project:**
 - Longer-term provision of farming inputs—beyond the current “starter packs”—could help beneficiaries grow their production more sustainably, improving longer term food security (although beneficiaries risk developing a dependency on project inputs).
 - Enhanced advocacy efforts (which could include more frequent training of local partners) may help ensure that ADMARC inputs and maize are available in more communities across the programme coverage area, and in greater amounts.
 - Increased producer capacity-building and proactive efforts to improve market opportunity identification, transport and storage may help beneficiaries enhance their market access, income levels, and income security.

Since their start, Oxfam’s Malawi goat and irrigation projects appear to have achieved success in several key areas, demonstrating solid progress toward key project outcomes. In the goat project, efforts to promote manure use in farming have likely led to an increase in the number of beneficiaries using manure, and to production increases among those who do—with beneficiaries doubling their maize yields in some cases. Project activities to promote the breeding of offspring for sale may have contributed to a 70% increase in beneficiaries’ average annual incomes since the project’s start. They have also likely played a role in boosting beneficiaries’ longer-term income security, as the sale of goats/goat products has become a sustainable income generator among some beneficiaries—with strong potential for benefiting households which support PLWH/A, or even PLWH/A themselves (given its non-labour intensive nature). Where hungry-month coping and general food security are concerned, project initiatives have likely helped beneficiaries reduce their yearly hunger periods (by one-half, in some cases), and are likely linked to most beneficiaries’ assertion that their food security has increased over time.

Oxfam’s irrigation project has also likely created key “Stories of Change” in the lives of its beneficiaries. Canal construction and input provision are likely linked to beneficiaries’ reported 114% mean increase in annual maize yields since the start of the project—and triplings of crop yields among some farmers. Beneficiary-reported increases in food security over time may also be associated with these efforts—as may be greater women’s empowerment in local communities, now that the scheme has given women increased opportunities to lead farming activities. Oxfam lobbying

may have also played a role in the recent government decision to retain the social functions of maize marketing and supply organisation ADMARC—enabling beneficiaries to enjoy continued access to subsidised inputs and dry-season maize. Finally, project efforts to increase market access through producer committee training and market research are likely connected with new opportunities for maize and tomato sales at high profit margins. Beneficiary-reported increases in income security may also be associated with this project work.

However, both projects also face certain challenges if they move ahead with scale-up. For the goat project, the range of agricultural inputs (like seed and fertiliser) which complement manure in household farming are costly and sometimes scarce; this reality may hinder beneficiaries' attempts to increase crop output. Goat husbandry, particularly for commercial purposes, also remains an emerging activity in many communities; agriculture and piecework still appear to be viewed as more crucial IGAs and/or coping mechanisms during periods of hunger and food/income insecurity. High input costs were also cited as a key obstacle to the irrigation project's success: While Oxfam's construction of canals has been a crucial catalyst for production growth, fertiliser and seeds are recurrent costs that many beneficiaries find onerous—raising questions about the scheme's sustainability (and ability to boost food security) in the absence of longer-term Oxfam input provision or subsidy. Access to inputs and hungry-month maize from ADMARC has also proven unreliable, compounding production challenges and counteracting project efforts to increase food access. Finally, logistical challenges ranging from poor transport to poor pricing coordination have impeded beneficiaries' market access, hampering efforts to raise incomes and income security.

To help inform the planning process for possible future iterations of each project, this report concludes with several recommendations gathered from beneficiaries, non-beneficiaries, project staff/stakeholders, and the evaluators. Feedback and suggestions are grouped by project for easier reference, but some overall comments are provided here first: Globally, the evaluators' main recommendation is for greater ongoing project monitoring and periodic evaluation. Accurate and reliable data are the best proof of a project's success or failure—and more importantly, they can help project staff make timely changes to project delivery. For example, better tracking of monthly tomato sales from irrigation tracts can expose market access challenges more quickly, prompting project-backed efforts to find new buyers or lobby for better prices.

Both Oxfam and partner NGO staff informed evaluators that current M&E efforts are minimal, and that both projects could benefit from more rigorous data collection. The large number of partner NGOs and CBOs (particularly in the goat project), coupled with the remote locations and basic infrastructure of many project sites, have likely not made M&E systematisation easy, but these processes are still vital—because the data they generate can enhance implementation, attract more funding, improve media coverage, and increase stakeholder engagement (among other key benefits). Indeed, certain beneficiaries and non-beneficiaries commented on the value of the “Stories of Change” evaluation process—affirming that regular evaluation visits help communities recognise their own progress and change their practices/attitudes where needed. Noted a male goat project non-beneficiary in Kapichi: “This [evaluation] exercise is very useful. I didn't realize I could trace the change in my life; it's very helpful to see where I've come from two years ago—and how things have improved”. His peer concurred: “This [evaluation] exercise is great: It helps me identify problems and shows me where I can take action to solve them”.

4.1 RECOMMENDATIONS – GOAT INTERVENTION

- **Challenge:** Frequently mentioned by beneficiaries was the notion that agricultural production is a complex process—and that additional inputs beyond goat manure (namely, good fertiliser and seed) are critical to boosting crop output. However, beneficiaries noted that these **inputs were often very expensive**, hard to find in project communities, and not easily obtained from ADMARC (either because of supply shortages or long distances to depots).
- **Potential Response:** Project staff can opt to **add an agricultural input provision component** to the goat distribution scheme. Along with delivery of training/supplies for animal health care, project staff could coordinate short-term distribution of input “starter packs” like those handed out through the irrigation project. These initial supplies could help beneficiaries jump-start their manure-based agriculture production until they acquire enough recurrent income from goat/goat product sales to finance their own input purchase. However it is important to note that provision of free inputs may not always be a sustainable solution and the role of the state in providing agricultural extension services is also essential. (See below for additional suggestions on the potential for Oxfam to strengthen state structures/strategies through good advocacy).

Project staff and partners might also engage in several other support activities to promote goat husbandry more widely as an income generating strategy and hungry-month coping mechanism. While not discussed at length in this report, beneficiaries cited several challenges related to goat-raising and breeding which may currently hinder their ability to leverage the animals as assets—but which may also be easily addressed:

- **Challenge:** Some beneficiaries cited frequent **thefts of goat offspring**, and mentioned that as a theft-deterrence strategy they kept their goats inside their living spaces, rather than in outdoor raised *kbolas* which protect the animals from ground-level animals and wet conditions. Indoor housing, however, was proving detrimental to the health of household family members and makes manure collection more difficult.
- **Potential Response:** Project staff could consider **communal outdoor goat housing** with rotating night-time supervision to protect animals while preventing theft.
- **Challenge:** Several beneficiaries cited **problems with the goat pass-on process**. In some cases, project goats produced one kid but then did not reproduce again. As a result, the initial recipient either refused to pass on the first kid or attempted to reclaim it after it had already been given away. In other cases, initial recipients’ goats died before bearing kids—typically because they fell ill—and beneficiaries lacked good access to drugs and/or veterinary care to treat them. After their goats died, recipients felt they should receive a replacement from the project.
- **Potential Response:** Oxfam and partner NGOs can **monitor the goat distribution and pass-on process more closely**. Structured record-keeping of recipients, offspring, and pass-on rates can help staff identify shortages, husbandry problems, and/or participant non-compliance and rectify these problems. Oxfam and partners may also wish to invest more time and resources in monitoring the drug box/livestock technician support component of

the project. Efforts to ensure that drug boxes are well stocked, that technicians are carrying out regular visits (and have the skills and knowledge to manage this work as a small enterprise), and that beneficiaries and technicians are properly trained could reduce goat deaths, improve goat health, and create a more compelling case for the use of goats as income-generators/coping strategies.

4.2 RECOMMENDATIONS - IRRIGATION INTERVENTION

- **Challenge:** Many beneficiaries cited **high fertilizer prices** as a key impediment to increasing production—despite project efforts to construct canals and provide short-term input “starter packs”.
- **Potential Response:** Project team can **provide inputs over a longer period of time**, until beneficiaries earn enough recurrent income from scheme farming to sustain their own purchase (however this approach does risk creating a dependency among beneficiaries and could also be costly). Alternately, project staff and partners may wish to continue to lobby for increased government investment in smallholder agriculture (described in greater detail below), and may also wish to manage ADMARC subsidy coupon distribution more proactively—building the capacity of local village committees to identify eligible recipients and ensure fair disbursement. Efforts here could help increase beneficiaries’ access to inputs, stimulate increases in production and food security, and strengthen ADMARC without involving direct supply procurement by the project itself (however, if pursuing this strategy, project staff should be careful to ensure that transport access to ADMARC depots is good and input supplies are reliable).
- **Challenge:** Many beneficiaries cited an **inability to access ADMARC inputs or hungry-month maize** when they needed it—due to a lack of nearby depots and periodic supply shortages at depot sites.
- **Potential Response:** Project staff can **realign advocacy efforts** to focus on ensuring that ADMARC enhances its geographic reach and its maize provision during hungry months. To better gauge the effectiveness of their lobbying in these areas, Oxfam and partner staff develop a strong monitoring and evaluation system that tracks key advocacy outputs (like the number of parliamentary statements that mention Oxfam/partner-created content or policy positions, the number/frequency of Oxfam advocacy mentions in local media, and the number of informational meetings convened by Oxfam/partners for MPs on ADMARC issues). Oxfam can also increase the frequency and depth of its capacity-building training for local partner NGOs, so that the local organizations are better equipped to lobby on these new issues.
- **Challenge:** Beneficiaries report a **failure to obtain good market prices** for their produce, mainly due to a lack of transport for accessing new markets, a lack of producer organization to obtain greater power in price negotiations, a lack of knowledge about negotiating with buyers/coordinating price offers, and a lack of good pre-sale crop storage facilities.
- **Potential Response:** Project staff can explore options for **identifying more private sector buyers** who may be prepared to cover transport costs in order to access sufficient quantities

of quality produce (the linkage with the Mulanje Canning Factory is a positive example of what has already been achieved in this area).

- In addition, where these opportunities exist, Oxfam could play a stronger role as an **honest broker** to ensure that smallholders gain power in the market and are not disadvantaged by payment terms; Oxfam staff could also work to stimulate private sector organisations to invest in the provision of inputs and extension services where appropriate.
- Oxfam can also **increase capacity building** for local beneficiaries in the area of new market penetration, producer group organising, market price monitoring, and other key topics. Better producer organisation may also enable more effective use of transport or more effective lobbying of district authorities to invest more heavily in rural roads that link producers to markets.
- Finally, Oxfam and partners can help producers build/access **shared surplus storage facilities**—either through direct construction or through funding for a community-led building project. If implemented in part, or all together, these measures could do much to help boost beneficiaries’ market penetration, raise their earnings from the irrigation scheme, and increase their overall income security in the longer term.

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