Evaluation of the Hand in Hand East Africa and FSD Kenya poultry pilot project in Tala

QuIP
Qualitative Impact Assessment Protocol

Bath SDR

Executive summary

Project overview

The Poultry Value Chain Pilot Project started in 2020 as a multi-year project implemented by Hand in Hand East Africa and FSD Kenya in Machakos County, aiming to improve the livelihoods of smallholder farmers organised in Community Based Organisations. The objective of the pilot was to develop a sustainable and scalable livelihood model using a market system approach. This consisted of multiple activities, such as training on poultry rearing, exchange visits and access to finance through links with Equity bank. The project was based on the delivery of both financial and non-financial services and aimed to demonstrate how finance can add value in building poor households' livelihoods. By the time of this study design, June 2024, 238 loans had been disbursed to 18 groups.

Research methodology

This research study used multiple qualitative data collection tools to gather farmers' experiences and perceptions of change during the project's period and assess the design, delivery and sustainability of the Tala pilot.

Ten key informant interviews (KIIs) were carried out to assess the design and implementation of the pilot project with informants at central/management level who were involved in the design of the pilot project, including FSD Kenya, HiH EA and EBL, and with informants who were involved in the delivery of the project or benefitted from its implementation at community level, such as Lead Farmers and paravets.

In-depth semi-structured interviews (using the Qualitative Impact Protocol, QuIP, approach) were carried out with 36 farmers, 24 women and 12 men to explore changes in the last two years in farming production, productivity & profitability, income sources & access to markets, financial knowledge & practices, decision-making & household relationships, and overall wellbeing and resilience to shocks. QuIP respondents were selected through purposeful sampling and only group members who had received all interventions (i.e., training and other non-financial activities, and access to finance through Equity) were sampled for interviews.

The interviews were conducted in the local language and double blindfolding was adopted during data collection. This entailed that both local researchers and respondents were not aware of the project being evaluated and of the organisation that commissioned the study. The interviews did not refer to the project or the study commissioner. Thus, if farmers provided causal narratives linked to the programme, this is considered unprompted and helps to build a picture of pathways of change triggered by the project whilst mitigating for pro-project and confirmation bias. In order to assess whether participation in the pilot drove changes,

Additionally, seven focus group discussions explored changes in the same domains as the individual interviews, while also explicitly asking about training and support received by the group. The FGDs focused on changes at community level and looked at the differences between those who were members of groups and CBOs versus those who were not.

Main findings - Impact

Poultry farming: The study found that most interview respondents - about 86% - (31/36) kept poultry and half kept poultry for commercial purposes. Sixteen of the 36 respondents (44%) reported either starting a new or expanding an existing poultry business and over 50% of respondents mentioned an improved health and longevity of their poultry as a result of changing their management practices. These included better feeding schedules, better hygiene practices and housing, switching to improved poultry breeds and the introduction of a vaccination schedule which highly reduced the bird mortality. Both interview and FGD respondents linked these changes to HiH training and exchange visits. However, the rise in the costs of commercial poultry feeds since 2022 mitigated some of the positive changes, as poultry rearing became less profitable over the two years of the project, leading some farmers to reduce or stop their poultry businesses.

Income: Most respondents experienced an increase in their income from farming activities - about 64% - (23/36). The most cited links to increased profits and income from both farming and non-farming income generating activities were improved market access, improved crop yields, improved health and longevity of poultry, the ability of farmers to make their own poultry feed as well as starting and expanding non-farming businesses. The improved poultry care practices that farmers learned from HiH training were linked to an increase in profits from poultry rearing. While most respondents reported an increase in profits from their poultry businesses, somewhat less than half also reported that the rise in feed costs and other agricultural inputs had reduced their income from poultry during the project period, thus showing fluctuations in income from poultry during the project period.

Borrowing and saving: By the time of the study 18 groups were linked to Equity bank, mostly successfully. Only one group disintegrated, and loans were recovered through the members' savings. Interview respondents linked the financial management training received by HiH and Equity Bank and their membership in a CBO to their ability to access loans. In turn, access to loans was linked to starting new or expanding existing businesses, including poultry rearing and other types of businesses, such as retail and transport. Loans were also linked to asset acquisition and investment in education. The majority of female respondents reported an increase in farming income - 54% - (13/24), and a diversified list of productive investments thanks to the increased access to capital facilitated by the pilot project. Only a few respondents mentioned that the complicated process of accessing commercial loans, including the rigid repayment structure without a grace period, and the fact that other members in their group defaulted on loans, made them less likely to access loans from Equity.

Almost all respondents - 94% - (34/36) also mentioned that their ability to save increased during the pilot project as a result of the financial training received from HiH and Equity, their participation in CBOs and increased profits. Unsurprisingly, half of them linked this to their commercial bank account with Equity, since the group loan product required group members to save 200Kshs weekly. Although their saving amounts increased, some farmers reported concerns regarding their inability to access their Equity savings and mentioned their intention of leaving their group in order to withdraw their savings. Improved ability to save was linked by some respondents to increased resilience, and feeling closer to their financial goals.

Decision-making and household relationships: Findings from the interviews did not show many changes in terms of decision-making roles at the household level, showing that the majority of respondents take decisions jointly with their partners and this was the case also before the project. Nevertheless, local key informants discussed changes in women's activities, mentioning that women were more actively contributing to the economics of their households, investing in income-generating activities and accessing funds from Equity Bank and these were considered positive changes.

Wellbeing, resilience and confidence in the future: Farmers gave mixed responses to the questions related to wellbeing. 44% of respondents reported improved wellbeing. This was linked to increased income and poultry profit, and improved ability to meet household needs. On the contrary, 33% of respondents reported decreased wellbeing as a result of reduced income and financial stability, nd reduced ability to meet household needs. During the interviews some respondents also discussed a feeling of being resilient. Reduced income and reduced ability to save were linked to reduced resilience, while increased income, profits, ability to save, and improved financial management skills made farmers feel more resilient in the face of unexpected emergencies. Those respondents who mentioned a reduced sense of wellbeing and resilience linked this to the rise in the cost of goods, including agricultural inputs, and decrease crop yields due to poor weather. Overall, most respondents were confident that their income generating activities would be successful in the future as a result of the training received, their ability to save and take loans from Equity and prior business expansion.

Main findings - Mechanisms

Analysis of key informant interviews: The Tala pilot was designed based on the previous experiences and strengths of the three partners FSD Kenya (FSDK), HiH and Equity bank. The capacity of the three partners to implement the pilot were challenged by the high staff turnover and the lack of assigned staff in HiH and FSDK. This might have affected the capacity to regularly monitor progress and delayed the resolution of some implementation challenges.

Two main approaches were used for the delivery of the non-financial activities of the project. The Lead Farmers (LF) approach consisted in training LFs selected from each CBOs and assigning them between 3 to 5 groups each to be trained. These training activities were compensated directly by HiH. A second delivery approach was used by training and delivering paravet services through a fee-based system. In this way, paravets could support disease control and vaccinations within their groups, while also providing the same services to other groups and farmers in exchange of a small fee generally to cover the transport cost. Other interventions included exchange visits, training in digital marketing and support in accessing markets and inputs related to poultry rearing.

The study found that the fee-for-service approach adopted for paravets had higher chances to remain sustainable after the end of the project. Indeed, already during the pilot implementation, paravets provided their services to multiple farmers in the community and they received a compensation for their services directly by the farmers. On the contrary, the training on poultry rearing carried by Lead Farmers only targeted the few groups that each LF was assigned by HiH. The Lead Farmers interviewed during the study mentioned that they were happy to provide free training and advice if people came to them to ask for support, generally on an individual basis. However, they were not going to organise groups' training as they did during the project because the system was not set up as a fee-for-service.

Access to finance and financial literacy training were provided by Equity Bank jointly with Equity Foundation. Groups which had already worked with and previously taken a loan from HiH were eligible for the Equity loan. As part of the vetting process, each member was asked to save 200Kshs weekly and demonstrate they had a business to support their ability to repay the loan. The loan product was a group loan whereby individual saving amounts constituted the loan guarantee. Generally, although multiple payment structures were offered, farmers decided to repay their loan in weekly instalments starting from the week after they accessed the loan.

Nevertheless, some of the loan features were problematic for some borrowers, namely the rigid repayment schedules, the lack of a grace period and the fact that savings could not be withdrawn unless the member left the group. Having the full saving amount blocked in their individual account over time could lead farmers to revert to other short-term lenders in case of an emergency, and in the longer-term lead to farmers leaving their group, which could eventually result in the disintegration of the group.

Overall, the bank was cushioned by the Credit Guarantee (CG) provided by FSD Kenya and this is what allowed Equity to take the risk to serve the low-income groups located in distant rural geographical areas targeted by the Tala pilot. Although the handover process of groups from HiH to Equity presented some initial challenges and starting the linkages took longer than planned, by the end of the pilot Equity Bank had linked with 18 groups and reached the lending value goal. The bank reached its lending goal of KSh20 million and had 265 active clients in September 2024 (191 women and 74 men) and never used the CG to cover for defaults.

Overall, the design and delivery of the Tala pilot indicated potential sustainability of the project results. Since the project had created local knowledge and skills in poultry rearing, local farmers will likely continue to rear poultry, and the adoption of the new feeding and vaccination practices can ensure healthier and more profitable poultry. Meanwhile, the established financial linkages with

Equity Bank are likely to continue for those groups that had already established a linkage with the bank. The new marketing skills and access to new markets, such as hotels, will also help groups look for new markets for their produce.

Although these positive results, the pilot project also presents some limitations and challenges to future expansion and sustainability. For instance, while Equity Bank will continue to operate with the established groups, the bank is not likely to expand its operations to other groups without the Credit Guarantee. In addition, the financial needs of farmers may change in the medium to long-term and this might challenge their relationship with the bank, in case for instance in which they might need to withdraw their savings or groups default. Similarly, as mentioned above, the poultry training will not be provided to additional groups since the pilot did not set up a fee-for-service approach for LFs to deliver the training to other groups. Overall, the study also showed that farmers were impacted by the rise of input costs, especially poultry feed. This suggests the need to target multiple value-chains and different nodes along value-chains (including transformation of produce) to promote income adaptation to market shocks and resilient livelihoods.

In addition, the study found that the intervention managed to reach only some categories of farmers – generally those already involved in agricultural businesses, with some interest in poultry and/or already rearing chickens as a livelihood strategy, and older. Meanwhile, at least half of the targeted communities were not reached by the intervention and, specifically, younger households without a regular income, no business activities and children in school, as they would not be able to contribute the regular contributions towards the group's membership and activities, such as the regular savings to Equity Bank.

Conclusions and recommendations

To conclude, the findings show that the project activities triggered several mechanisms that led to positive changes in the activities and livelihoods of the targeted farmers. It is, however, hard to say whether such improvements will be sustainable in the face of external shocks such as inflation in the long-term. Similarly, the findings show that the proposed access to finance product might not be effective for groups in the medium to long-term as the inability to withdraw their savings might trigger negative coping mechanisms in case of emergencies, such as reverting to short-term lenders or selling assets which may in turn reduce households' resilience and food security.

Based on the findings, the project has the potential to be replicated as the approach of reaching farmers with both financial and non-financial services and using value-chains as entry points is effective and relevant in rural communities. In order to improve the potential sustainability of the results, the approach could be strengthened with an increased focus on income diversification and sustainable use of resources, the development of financial solutions which are designed to improve the ability to save and be resilient as well as borrow, a fee-based approach to the lead farmer training model, and stronger support on value-addition, adaptation and innovation.

The findings from this study can support FSD Kenya into further interrogating the theory of change of the pilot project, its assumptions, main goals and targeting approach. Were the problem and barriers well identified and defined? Was the targeting appropriate and in line with the strategy proposed? This raises further questions about the positioning and role of FSD Kenya and the design of future projects: What practices and activities should be promoted to improve rural households' resilience? Should the focus be on productivity and income-generation or on sustainable farming and ecosystem? How can multiple outcomes be pursued? If market-models don't work for the poorest segments of rural communities, how can they be better targeted to support their resilience and empowerment?

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List of abbreviations

CG	Credit Guarantee
FSDK	Financial Sector Deepening Kenya
HiH	Hand in Hand
K-CEP	Kenya Cereal Enhancement Programme
MoA	Ministry of Agriculture
QuIP	Qualitative Impact Protocol

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Report published February 2024

1 Introduction

1.1 Project overview

The Poultry Value Chain Pilot Project started in 2020 as a multi-year project implemented by Hand in Hand East Africa and FSD Kenya in Machakos County aiming at improving the livelihoods of smallholder farmers. The objective of the pilot was to develop a sustainable and scalable livelihood model using a market system approach. This consists of multiple activities and interventions targeting groups of poultry farmers organised in Community Based Organisations (CBO). In particular, the pilot aimed to develop viable value chain models to demonstrate how finance can add value in building poor households' livelihoods.

The project was delivered using the HiH model of four-step enterprise development broken down in six modules and delivered fortnightly for a period of 9 months. The training on chicken farming was delivered to 40 Lead Farmers, identified among the targeted groups, who then trained their groups of farmers, and a few more that were assigned to them. The HiH model includes, at the end of training, an incubation period for farmers' enterprises and access to an Enterprise Incubation Fund (EIF) of up to Ksh. 20.000 for each member within a farmer group – this is the HiH loan that group members accessed before the Equity Bank loan. Overall, the pilot project included four main components:

- Production component: this included training on various aspects of the poultry value chain, such as on brooding and general husbandry tailored specifically to Kienyeji ('improved local breed') poultry farming, group development and testing of locally produced feeds, as well as training on chick stocking. The training was jointly developed with the Ministry of Agriculture (MoA) and delivered by staff from MoA.
- Vaccination and disease management: under this component some farmers were trained on vaccination and disease management and farmers were further mobilised into clusters for coordination. The project also trained para-vets and helped farmers access them.
- Market access component: this included the establishment of marketing committees responsible for carrying out market surveys to ascertain the market demand and better market for the chickens and for the sale of mature birds, and production committees responsible for the acquisition of chicks, and raw materials for feed formulation.
- Finance component: one of the main identified bottlenecks for farmers was lack of adequate finance. This project promoted the linkage of farmer groups to mainstream credit through a de-risking arrangement between FSD Kenya and Equity Bank (Kenya) Limited. Specifically, FSD Kenya provided a credit guarantee to cover 50% of the loan default loss, in addition to funding the other pilot activities implemented by HiH. This component also included the co-creation of a loan product to meet the needs of the farmers targeted by the project.

HiH EA:

Providing training and support to different VCAs

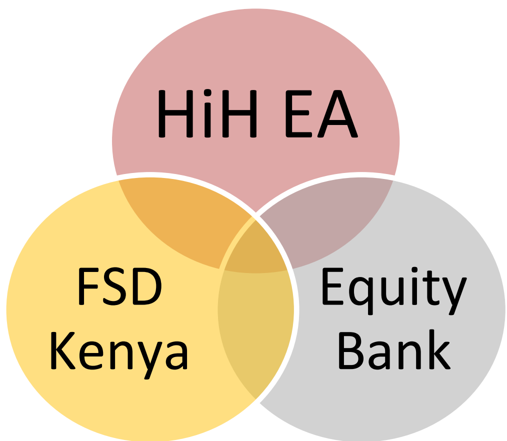
FSD Kenya:

De-risking the linkage between farmers and Equity Bank and funding the HiH activities

Equity Bank:

Delivery of loans, and other financial services

Figure 1: Implementing partners and responsibilities



Overall, the project had reached 1,147 farmers, of which 78% women, organised in several farmer groups. Under the finance component of the pilot project, as of June 2024, 238 loans had been disbursed to 18 groups to a total of Ksh.18.387M in funds from Equity Bank. The project had also promoted monthly savings and by June 2024, a total of Ksh. 3,243,060.86 had been saved with Equity Bank.

The project hypothesises that the activities under the four components would lead to the outcomes in Table 1:

Table 1: Project outcomes and hypotheses

Outcomes	Key hypotheses
Increased productivity	• Optimal input usage • Correct husbandry • Reduced risks
Increased production	• Timely access to factors of production – labour, husbandry skills, enterprise/business know-how to manage the enterprises • Access to inputs – day-old chicks, feed, vet services • Access to capital/finance to facilitate production
Reduced cost of production	• Affordable inputs • Economies of scale
Reduced losses	• Appropriate husbandry • Usage of appropriate risk mitigation tools • Access to veterinary services to minimise mortality • Access to financial risk mitigation tools
Competitive market prices	• Improved quality of birds • Access to better markets for produce • Access to information • Ability to offer the right quality and quantity of birds • Proper management of logistics including bulking • Effective coordination
Sustained good practice by low-income householdsand other actors and hence incomes and profitability	• Sustainable models for veterinary service delivery, marketing, coordination, finance (capitalisation), skills and knowledge transfer, input access, etc.

FSD Kenya commissioned this assessment of the Tala pilot to investigate how the project had contributed to changes in the livelihoods of poultry farmers and the state of their poultry enterprises after 4 years of implementation, as well as changes for other actors involved in the poultry value chain which might signal changes at the level of the market system.

The study provides an in-depth understanding of the pathway of change triggered by the intervention, insights and lessons learned from the pilot project and recommendations for development partners, policy makers and financial service providers on how a market system approach can add value in building poor households' livelihoods.

1.2 Summary of research methodology

This study used multiple qualitative data collection tools: key informant interviews, QuIP individual interviews and focus group discussions. This section presents a summary of the research methodology that is more extensively presented in Annex 7.

Primary data from project's participants was collected through QuIP individual interviews and focus group discussions.

QuIP interviews were used to collect in-depth information on farmers' perceptions of the main changes that happened in their lives over the last two years of the project's period and their perceptions of the key drivers of change. The QuIP interview was carried out with 36 farmers, 24 women and 12 men, who were part of groups who had taken the Equity loan. This sampling decision was taken together with FSD Kenya, with the intention to hear the stories of change of those farmers who were involved in all aspects of the intervention, to better understand the changes effected by the full pilot package and also to hear from respondents which parts of the pilot, if any, they found most useful and effective. However, the fact that the study did not interview groups who had NOT taken an Equity loan may have compromised the ability to assess the value of loan independently of the other interventions, such as the non-financial activities delivered by HiH. This decision was based on the limited resources allocated to the study, as it would have taken a bigger sample to investigate the comparison between farmers who took the loan and farmers who did not. The unequal split between women and men was based on two main reasons: 1) the pilot project specifically targeted women, and 2) the higher number of beneficiaries who accessed the EB loan are women as a result of the specific project target (i.e., 78% of group's members were women).

The interviews were designed to capture change stories in the domains of people's lives which were expected to be affected by the activities and services provided under the pilot project, such as training, access to para-vets and markets, and access to financing. The interviews included a combination of open-ended and closed questions, aimed to elicit information about change in different outcome domains, and why respondents think that change has happened.

Double blindfolding was adopted during data collection. This means that the interviews did not reference the project at all, taking an exploratory, open-ended approach to capturing information about all possible drivers of change in the areas where the programme expects to have impact. This entailed that both research assistants and respondents were not aware of the programme being evaluated and of the organisation that commissioned the study. However, in doing this, the local researchers were informed to explore more in-depth drivers of change related to poultry rearing, in such cases where respondents mentioned changes in their poultry rearing activities, in order to keep the interviews between one and one and a half hour. Given that the interviews did not refer to the project or the study commissioner, if farmers provided information about the programme, this is considered unprompted and helps to build a picture of contribution whilst mitigating for pro-project and confirmation bias.

Respondents were purposively sampled in order to include only farmers who had received all the pilot interventions, that is the various training on poultry rearing as well as the linkage with Equity Bank. This was intentionally designed in order to explore whether respondents would attribute any changes in their farming activities, as well as production, productivity and income to the pilot intervention. This has provided a very useful perspective on the pilot intervention. It is also, however, a limitation of the study that did not carry out any interviews with community members who did not participate in the programme as a comparison group.

The narratives from respondents were coded and analysed using the **Causal Map App**, an online data analysis tool. Through causal analysis, **influence** (driver) and **consequence** (outcome) factor labels were allocated to respondents' statements to create visual depictions of their causal claims. Chapter 2 in this report contains 'causal maps' which summarise the findings from the interviews. For more information on how the data is coded and how to read the maps, please see Appendix 4.

Seven focus group discussion were used to explore changes in the same domains covered by the QuIP individual interviews, while also explicitly asking about any training and support received by the group, and changes at community level more broadly, also focusing on the differences between members of groups and CBOs and people in the community who are not members of groups and CBOs. The data from FGDs was analysed according to themes, triangulated with the stories of change collected from individual interviews and the information gathered through KIIs.

Lastly, ten key informant interviews (KIIs) were carried out to assess the design and implementation of the pilot project at different levels. These included interviews with informants at management level who were involved in the design of the pilot project, such as FSD Kenya, HiH EA and EBL, and with informants who were involved in the delivery of the project or benefitted from its implementation at community level, such as Lead Farmers and paravets. Overall, KIIs aimed to investigate the role of the different market actors in addressing the market bottlenecks that were identified and the feasibility of the piloted market approach. KIIs also gathered lessons learned and explored the sustainability and replicability of the piloted business models from the perspective of different stakeholders. The findings from key informant interviews are presented in Chapter 3.

1.2 Structure of the report

This report comprises the following sections:

Chapter 2 presents the main findings, including an overview of change from the QuIP interviews, followed by the main stories of change related to poultry farming, income, access to finance, wellbeing and household decision-making strategies. This chapter includes findings from individual interviews, focus group discussions and key informants at community level – namely one lead farmer, one paravet and one chairperson of a CBO.

Chapter 3 presents the analysis of the key informant interviews carried out with FSD Kenya, Hand in Hand and Equity Bank.

Chapter 4 presents a list of the different organisations in the area, cited as important drivers of change by the 36 respondents to the QuIP qualitative interviews.

Chapter 5 directly addresses the evaluation questions to be answered by this study. These mainly focus on the impact of the project on direct beneficiaries, while also drawing considerations on the relevance, effectiveness and replicability of the project.

Chapter 6 outlines the main conclusions and recommendations.

Appendices provide additional guidelines on how to read QuIP studies and lists sources utilised in this evaluation. They also include graphs and tables of the quantitative analysis. Appendices also include details on the evaluation methodology.

2 Stories of change

2.1 Outcomes matrix

The table below presents a matrix of the intended outcomes, in the column on the left, with the main attributed drivers written in the boxes in the corresponding row. For example, the most reported driver of 'Improved ability to invest' was participation in a CBO, followed by Equity's financial management training.

The outcomes are in descending order, with the most mentioned listed first. The outcomes are shaded depending on how many times they were cited; deeper shaded boxes indicate that more respondents mentioned the outcome. The highest level of reported outcome was mentioned by 89% of the respondents (top row), the lowest was 19% (bottom row). The percentages in the second and third column indicate what portion of respondents linked that **driver** to the intended outcome in that row.

This summary shows us that participation in CBO and financial management training were important drivers for the most mentioned outcomes. In many cases, participation in a CBO led to training and access to finance but also had other benefits such as access to table banking.

Table 2: Outcomes matrix

	Most reported drivers of these outcomes	
Intended outcomes	**Most reported**	**Second most reported**
Improved ability to invest [89%]	Participation in CBO [39%]	Financial management training (Equity) [25%]
Took a loan [86%]	Participation in CBO [56%]	Financial management training (Equity) [44%]
Improved non-poultry income [67%]	Took a loan from Equity [22%]	Increased market price [8%]
Improved poultry profit [58%]	Poultry management training (HiH) [36%]	Improved access to poultry inputs [31%]
Improved wellbeing [47%]	Took a loan from Equity [17%]	Poultry management training (HiH) [11%]
Improved resilience [42%]	Participation in CBO [22%]	Financial management training (Equity) [17%]
Improved access to poultry markets [19%]	Digital marketing training (HiH) [8%]	Digital marketing training (Equity) [6%]

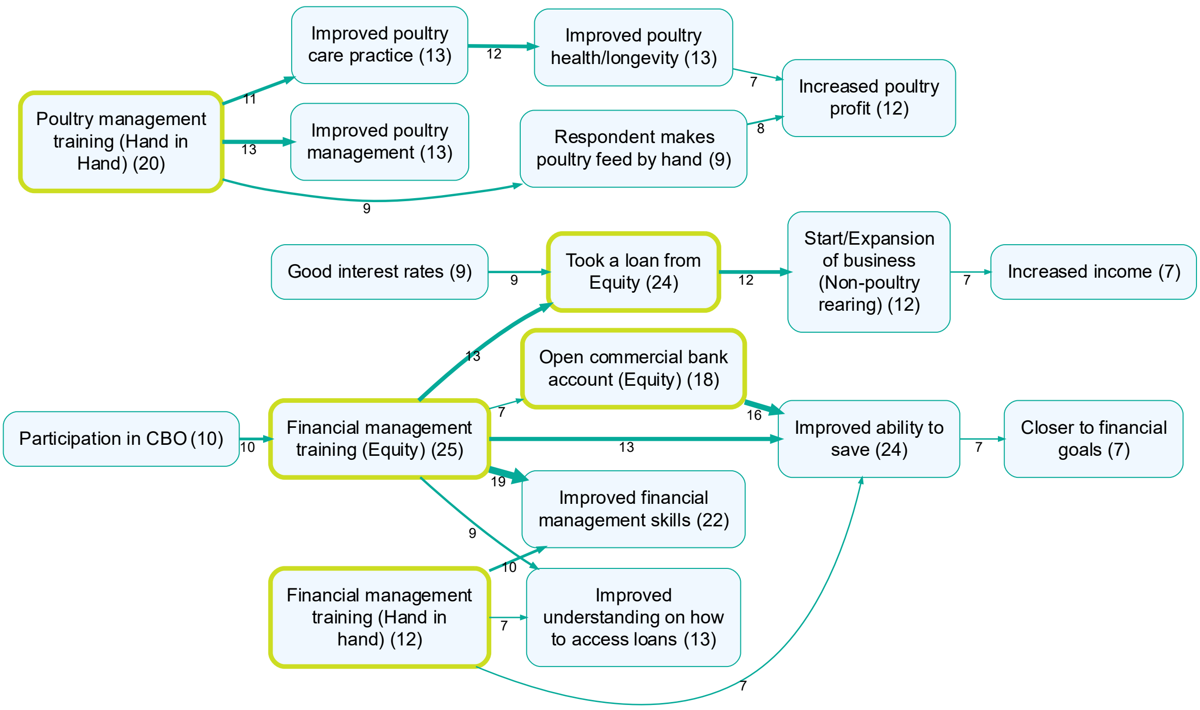
2.2 HiH and Equity

Figure 2 is a causal map based on causal claims made by respondents. The number below the arrows indicates the number of people who linked the factors; the number next to the factor label indicates how many people cited that particular factor. Yellow highlights around a box show that these labels were searched for to create the map. We can see that Hand in Hand's (HiH) poultry training contributed to respondents improving their poultry practices and starting or expanding their poultry business, leading to increased income for fourteen respondents (39%). Some respondents also mentioned HiH's delivery of financial management training, alongside Equity.

Equity supported respondents by providing loans, financial management training, and banking services. Financial management training encouraged participants to open a bank account with Equity to facilitate saving and to access loans. Nine respondents (25%) also noted that good interest rates further encouraged them to take a loan from Equity. These services and training sessions helped respondents develop their financial skills and knowledge. As a result, many respondents were able to increase their savings and expand their businesses. Digital marketing training from HiH and Equity was also mentioned by respondents, with five and three respondents mentioning each organisation respectively. This training improved respondents' marketing skills and enabled them to reach a wider customer base. Respondents often reported receiving training sessions due to their involvement in community-based organisations (CBOs).

Figure 2: HiH and Equity overview

Showing all links made by six or more respondents.



Although not included within the maps in this report, some respondents (8) reported positive changes from agricultural and poultry management trainings HiH had given before the two-year recall period. Two respondents also discussed benefiting previously from Equity's financial training and other two from a loan from Equity.

2.3 Poultry farming

This section explores changes in poultry farming, including narratives around the purpose for keeping poultry and starting or growing a poultry business, as well as changes in practices related to how farmers keep, feed and treat their poultry.

2.3.1 Purpose of keeping poultry

During focus group discussions, participants talked about how decisions are made by farmers in relation to their poultry farms and other businesses. They mentioned the following main factors: their knowledge and skills on the specific business of poultry farming, the availability of financial resources and the time, space and equipment to dedicate to a poultry business activity, as well as sufficient demand for the sale of their products.

Farmers in FGDs reported that as a result of the training provided by HiH, more people now had a business mindset and ventured into poultry rearing for commercial purposes. As a result of the knowledge on how to keep, feed and treat chicks and chickens, farmers had started to keep more chickens. Meanwhile, the existing demand for chickens and chicken products from the local market and, in some cases, also from Nairobi has allowed many individual farmers and groups to start or grow businesses related to poultry.

Looking at individual interviews, Table 3 shows that a minority of respondents did not keep poultry at the time of the interview. Half of the respondents (18/36) kept poultry for commercial purposes, while 13 kept poultry for non-commercial purposes. Table 4 shows the split of respondents by age, indicating that more respondents over 46 years of age engage in poultry farming, either for commercial or non-commercial purposes. Most respondents were already active in poultry rearing before the pilot project and only six respondents started poultry rearing as a new activity during the recall period.

Table 3: Engagement with poultry farming by gender

Engagement with poultry farming	**Female** (24)	**Male** (12)
Commercial	13 (54%)	5 (42%)
Non-commercial	9 (38%)	4 (33%)
Do not keep poultry	2 (8%)	3 (25%)

Table 4: Engagement with poultry farming by age

Engagement with poultry farming	**>55** (10)	**46-55** (11)	**36-45** (9)	**26-35** (6)
Commercial	7 (70%)	4 (36%)	5 (56%)	2 (33.3%)
Non-commercial	3 (30%)	6 (55%)	2 (22%)	2 (33.3%)
Do not keep poultry	0	1 (9%)	2 (22%)	2 (33.3%)

Respondents who kept poultry for non-commercial purposes primarily consumed their chickens' eggs and occasionally the meat. Most of these respondents also indicated that they would sell their birds if they required quick access to cash. Within this group, some prioritised breeds and practices that required fewer resources, such as local Kienyeji which can range freely and are more resistant to diseases.

"I have always kept pure Kienyeji chicken because they easy to manage and require very little resources because they are mainly free range. The chicken I rear are mostly for subsistence but in case of emergency I occasionally sell them."

KAF22- Woman from Kwa Kathule, aged 46-55

All respondents who kept chickens commercially sold the chickens and most also sold eggs (Table 5). One respondent also sold chicken droppings and another incubated and sold chicks. During FGDs, farmers also mentioned that they mostly sold chicks, chickens and eggs from their poultry farming.

Participants in the FGDs mostly reported that in the last two years many farmers had started rearing the improved Kienyeji chickens for commercial purposes because they grow faster, lay more eggs and can be sold at a higher price, thus making their businesses more profitable. One group of farmers, not commercially pursuing chicken rearing, said that they prefer keeping local Kienyeji rather than the improved breed because it does adapt better to the local context and can free range and are more resistant to diseases. Specifically, they mentioned that because of lack of finances some of their members had resorted to free range either the local breed or a cross breed which is still more resistant to diseases.

Table 5: Poultry produce sold

Product sold	Source count
Chicken	18
Eggs	11
Droppings	1
Chicks	1

Sixteen of the 36 respondents (44%) to the individual interviews reported that they had either started a new poultry business or expanded an existing one. Figure 3 shows that the most cited factors that contributed to this were improved access to inputs through improved income and access to loans, such as the loan from Equity. In some cases, having access to a group incubator also allowed farmers to better access chicks to grow and expand their business, diversifying their income along the poultry value-chain. The quote below shows the link between accessing a loan from Equity and starting a poultry business, and how this led to increased profits.

"Through my group, Mwangaza, I was able to take a loan from Equity Bank, which enabled me to start my chicken business...I started raising chickens in September 2023 and have seen an increase in profitability."

NM13- Man from Ngulini, aged over 55

Access to inputs also improved due to an increase in the local availability of inputs and services related to poultry rearing. Participants of FGDs reported that in their communities the services available to poultry farmers had increased in the two years of pilot implementation. These include input sellers, local agrovets, paravets, as well as buyers from both within and outside their communities. An increase in the number of farmers keeping chickens both for commercial and non-commercial purposes had led to a growing demand for products and services related to poultry, such as commercial feeds, vaccinations and other medication. This had also led to more competition among commercial manufacturer of feeds and more availability and choices for farmers. However, the way in which most smallholder farmers access their inputs has not substantially changed as they still get their inputs from local market and agrovets.

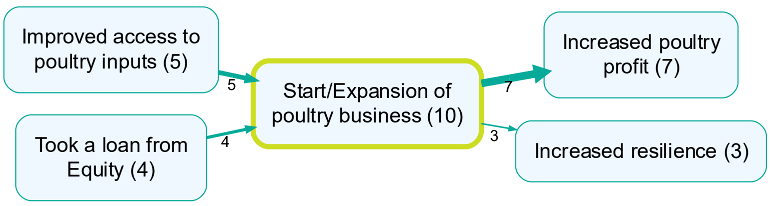
A group of independent farmers who were not part of a CBO also noted that the main difference between them and other farmers was that they accessed services and inputs individually from service providers rather than through their CBO or group.

Figure 3 also shows that starting or expanding poultry farming led to an increase in profits and helped three respondents feel more resilient to financial shocks as they could sell chickens at short notice. A few respondents talked about their chickens as "financial security" in case of an emergency and one respondent mentioned selling chickens to settle hospital bills. This shows that the focus of the project on livestock contributed to both productive investments for growth and also to an increased sense of resilience, since chickens can easily be sold in case of a financial emergency without depleting other households and business resources. From this perspective, livestock are a form of savings and wealth that can be liquidated in times of need.

> "Right now I feel I am confident and well prepared in case of an emergency compared to two years ago because I started chicken business which I use as financial security I sell them whenever I need money instead of taking business money."
>
> MWF27- Woman from Kivandini, aged 26-35

Figure 3: Start or expansion of poultry farming

Showing links made by three or more respondents.



2.3.2 Poultry farming practices

In addition to starting new and expanding existing poultry businesses, the increase in poultry profits was also linked to improved health and longevity of chicks and chickens, due to better practices related to chicken housing, feeding, vaccinations and treatment of diseases. Figure 4 shows that improvements to poultry care practices (this factor label includes improving their feed quality or regime (6), better hygiene practices (6) and ensuring birds were vaccinated (13)), are linked to better poultry health and longevity.

When it comes to the treatment of chicks and chickens, many farmers who had previously relied on herbal treatments, such as aloe vera, for treating sick birds had adopted an immunisation schedule as a result of the training provided by HiH, as indicated by the quote below. The NGO Sustainable Agriculture Community Development Programme (SACDEP) was reported by five respondents to provide a similar poultry training.

> I now follow immunisation schedule religiously unlike before where I mixed herbal medicine like aloe vera with water and give them. All the new practices I introduced increased the quality and quantity of the chicken as I would tell from their weight.
>
> MUF30- Woman from Kitwii, aged 36-45

Farmers who participated in FGDs also discussed the adoption of vaccination as a major change in the last two years. This was mainly linked to the training received by HiH which resulted in farmers adopting a vaccination schedule for both chicks and chickens. After the training of paravets from several groups, groups were able to administer vaccinations on their own. In addition, farmers reported that they were now able to observe their chicks and chickens, recognise different symptoms of chicken diseases and administer the medication needed.

Key informants also discussed the effects of such training on their groups and communities. The chairman of a CBO and the Lead Farmer and paravet of another group confirmed that the paravet training had added useful local poultry services to their groups and communities since they can buy and administer vaccines to their chicks and chickens autonomously. The paravet also explained that she can serve other groups for a small fee to cover her transport costs to reach the groups.

Independent farmers who had not been trained by HiH also adopted the same vaccination schedule as the information and knowledge received during training was passed on to other people in the communities and the trained paravets provide vaccination services to other members of their community. Overall, farmers reported that adopting the vaccination schedule had led to a reduction in mortality and healthier chickens.

However, some respondents, especially those rearing chickens for subsistence still used herbal treatments for their poultry.

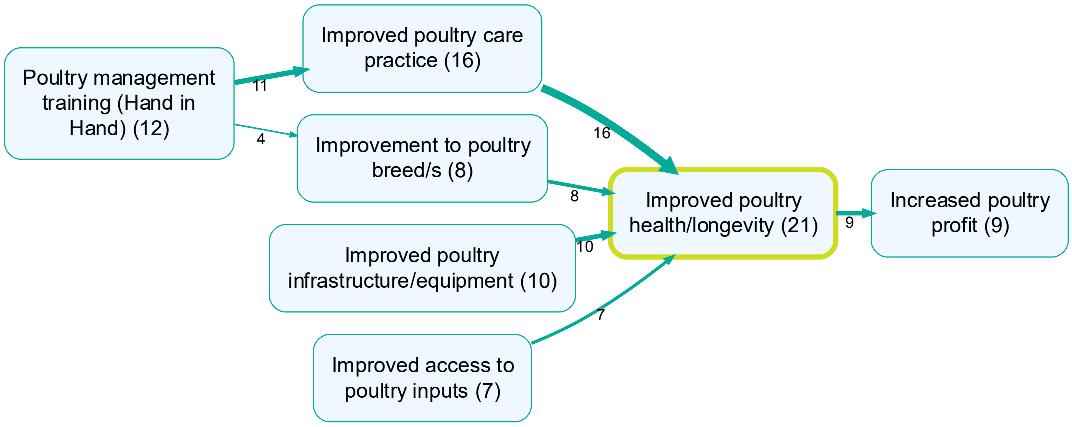
> When sick, I make a concoction of herbal medication and give them [my chickens] this in water. I do not vaccinate my chickens. Since my chickens are not for commercial purposes, I only sell them when someone walks into my compound and asks.
>
> MAF14- Woman from Kyeleni, aged 36-45

Improved poultry care practices also relate to the feeding strategies. Most groups and key informants reported having been trained by HiH on the feeding schedule for chickens, explaining the different feeds needed to chicks and chickens at different weeks and months for their proper growth and development. HiH also trained them on feed formulation and provided some groups with a mixer to prepare their own feeds. As a result of this, now most farmers reported feeding their chickens with both commercial feeds and home-made feeds. They explained that chickens fed with commercial feed grow faster and bigger and have better quality and quantity of meat.

However, many groups also raised the issue of the increased prices of commercial feeds. For many groups and farmers, formulating their own feeds and alternating this with commercial feeds is a strategy to lower the costs of inputs. The group of independent farmers mainly leaves the chickens to roam free range to minimize the cost of commercial feeds. The decision on type of feed to use is mainly based on the availability of funds and the type of chicken being bred.

Figure 4: Improved poultry health

Showing links made by four or more respondents.



Respondents noted that with improved breeds of chicken birds grew faster and were less prone to illness. These changes are often attributed to training provided by HiH. However, one respondent reported that, despite receiving HiH training, they had chosen not to switch breeds, concerned that different breeds might require additional resources. The woman quoted below had also attended HiH training and changed the breed she kept as she believed the Kienyeji chicken had a more favourable market and they could be reared with less resources. Independent farmers who participated in FGDs also shared the same perspective.

> I have been rearing pure Kienyeji for commercial purpose because when I go to the market the price of Kienyeji is high and people prefer it because its meat is tasty compared to new improved chicken. Rearing Kienyeji chicken is easy because they know how to fend for themselves and I don't have money to buy feeds from the agrovet.
>
> MUF28- Woman from Kitwii, aged 36-45

Figure 4 also shows that some farmers reported that improved infrastructure or equipment such as bigger poultry shelters, heaters, better ventilation or lighting also contributed to healthier chickens. During FGDs, farmers also shared the view that with improved infrastructure, rearing chickens is safer and more productive, and that HiH trained them on proper ventilation to be kept in chicken houses and hygiene practices to minimize the risk of infections within the chicken houses. Key informants also reported that due to local theft of chickens, they generally advice new farmers to construct proper houses for their chickens to improve their safety.

Farmers and key informants who discussed the poultry training received by HiH reported that this was delivered face to face and that material was provided to groups, such as charts and booklets. Practical demonstrations were also done and, in some cases, visits to other counties and farmers were organised, to learn from commercial chicken farms. Farmers mentioned that the training was delivered to groups that are part of CBOs, and not to everyone in the community. However, the trained groups positively impacted communities through peer-to-peer learning, and dissemination of their new knowledge and skills to other members of their communities.

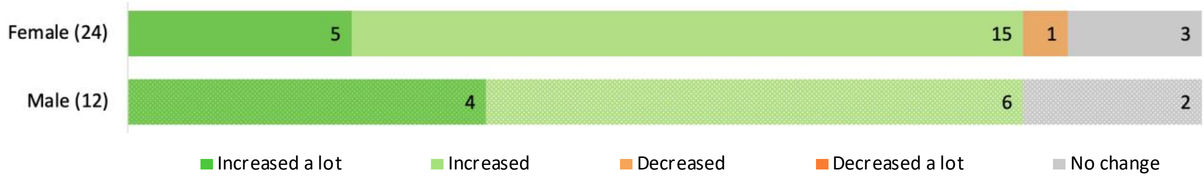
Two lead farmers who were interviewed as key informants talked positively about the Training of Trainers that they received in Tala and other learning events and visits in Nairobi and other counties. In addition to the training sessions related to poultry, some groups had also been trained by HiH on conservation and organic farming, indigenous trees, Azola and Black Soldier Flies, water harvesting, biogas, and soap making. Groups were also supported in setting up demo farms where other groups and farmers could practically learn and see new farming practices.

Key informants also mentioned that the Ministry of Agriculture was involved during the training sessions on poultry and other agricultural topics. However, they also reported difficulties in accessing extension services from the government due to little capacity at government level to serve the area, and that they would engage with the MoA once HiH leaves.

Lead farmers were assigned groups by HiH to train and received a fee from HiH for each training conducted. They did so in collaboration with MoA. Both lead farmers interviewed were positive about the spread of knowledge and skills in the area even after the end of the collaboration with HiH. Both lead farmers mentioned that they would keep training groups and individuals for free and that when there are enough people trained, the community will continue learning and growing.

The overall increase in knowledge and skills is also confirmed by the answers to the closed questions. The table in Figure 5 shows that, overall, 83% of both women and men reported either an increase or a significant increase in their farming skills and knowledge. These improvements in relation to poultry farming can be attributed to HiH training (see Figure 4). Similarly, the QuIP interviews did not explore in-depth the changes of all agricultural activities, respondents of FGDs reported being better able to manage their other farming activities due to HiH training on crops, other livestock, mangoes, bee-keeping and other approaches to better use and preserve natural resources.

Figure 5: Closed questions for farming skills and knowledge



This table shows the percentage of the female and male respondents who selected the closed question response in the first column.

	Farm business management skills/knowledge	
	Female (24)	Male (12)
Increased/ Increased a lot	83%	83%
Decreased/ Decreased a lot	4%	0%
No change/	13%	17%

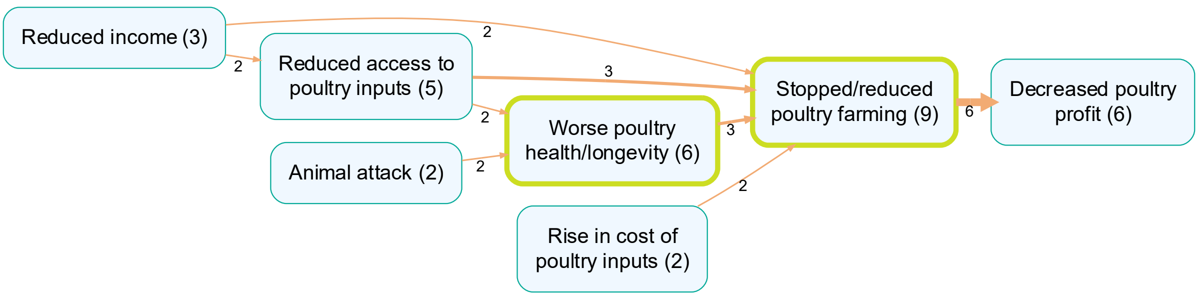
Not sure		

Only five respondents did not keep poultry at the time of the interview, and 10 respondents reported reducing or stopping poultry farming. Figure 6 shows the most frequently cited links to stop or reduce poultry farming, often due to unaffordable poultry inputs; respondents mentioned reduced access to commercial feeds, new chicks and also veterinary services. During FGDs, farmers also mentioned that the increase in prices of commercial feeds had negatively impacted smallholder farmers. Similarly, several key informants reported that since 2022 commercial feeds for chickens had increased and that had been a challenge for farmers. One Lead Farmer also noted that because of the increased costs of feeds, some farmers had either stopped or reduced keeping chickens and overall poultry businesses in the area had slowed down.

> The number of chickens [I keep] has reduced because the prices of feeds has gone up and am unable to rear and sell more. I have since opted for free ranging whereby you can only keep few for subsistence.
>
> MUF19 – Woman from Kitwii, aged 45-55

Figure 6: Negative changes in poultry farming

Showing links made by two or more respondents.



Three respondents also mentioned that the death of their chickens, in one case 60 chickens, left them with no capital to invest and a fear of trying to rear chickens again. In two cases animal attacks had contributed to deaths. There were no differences between different sample groups.

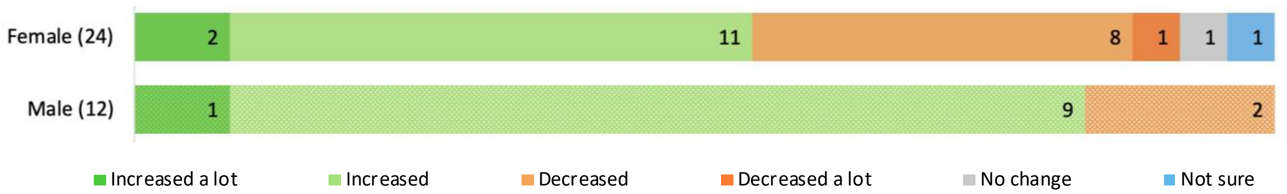
2.4 Income

The interview explored the main sources of income of respondents and the changes in the sources and amount of income that they had experienced during the pilot period. When asked about the main source of income, most respondents (23/36) reported that their main source of income was farming, including crops, keeping livestock, fishing and aquaculture. Five respondents said their main source of income was from running their own business, three were employed and three relied on casual work.

Overall, more respondents discussed positive changes to income than negative. This is supported by the analysis of the closed questions and the QuIP narratives, as well as by the information gathered through focus group discussions. The closed questions show that the overall farming income, which included agricultural, livestock and poultry income, had increased for most (64%) respondents (Figure 7). Most respondents also reported a mix of income sources such as selling crops, poultry and other businesses such as selling food, clothing or offering transport services.

The table below shows that proportionally more men reported an increase in farming income. This might be because they are more involved in multiple value-chains compared to women and thus less affected from external shocks.

Figure 7: Closed questions for farming income



This table shows the percentage of the female and male respondents who selected the closed question response in the first column.

	Farming income	
	Female (24)	Male (12)
Increased/ Increased a lot	54%	83%
Decreased/ Decreased a lot	38%	17%
No change/ Not sure	8%	0%

The map below combines poultry and non-poultry income and shows the most common drivers of increased profit (Figure 8). In total 30 respondents mentioned increased poultry profit and/or income. The map shows those drivers that were mentioned by at least eight respondents. These were improved market access, especially in relation to poultry products, improved crop harvest, and starting businesses other than poultry rearing such as a transport business, a café or expanding a pre-existing business. Improved poultry longevity and the new capacity of making poultry feed at home also contributed to an increase in the overall income of respondents.

I had to use my friends to tell their friends and that's how I attracted customers. I am proud that I started Wema agrovet as at the moment I am making enough income to meet all the needs of my children.

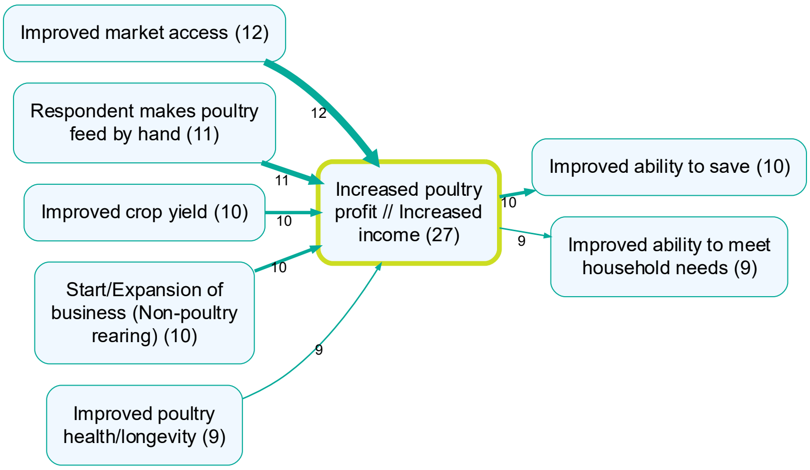
DM35- Male from Kyeveluki, aged 26-35

I save money from the profits of my [M-Pesa shop and mining] businesses, and my ability to save has improved over the last two years.

MAF5- Woman from Kyeleni, aged 26-35

Figure 8: Positive income overview

Showing links made by eight respondents or more.



While most respondents reported an overall increase in income during the project period, 11 respondents reported an overall decrease in their farming income and 21 also talked about factors that have led to a reduction in profits and income during the same period. Often, the same respondent would mention both positive and negative links.

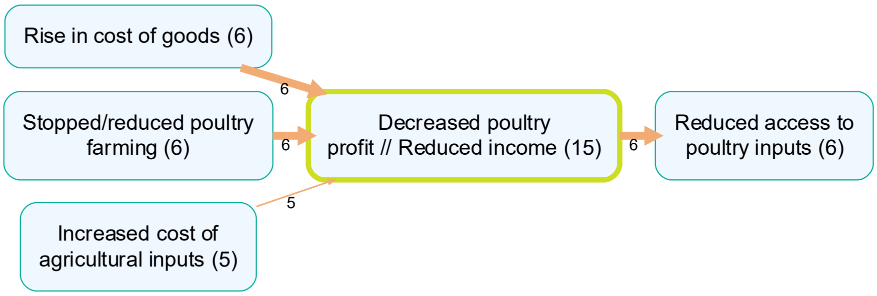
The map in Figure 9 shows that reduced income was impacted by increased cost of living or agricultural inputs. Reducing or stopping keeping chickens also decreased profits for six respondents. Why respondents reduced their poultry practice will be discussed in the next section. However, the map also shows that decreased profits meant farmers were less able to access poultry inputs such as feed or chicks. Some respondents were also less able to meet their household needs and save because they had less income.

Being the main income earner I have to do all it takes to make sure I provide for my family. Sometimes when we don't have money it stresses me so much because with or without money I have to take care of my family.

DM34- Man from Kyeveluki, aged 45-55

Figure 9: Negative income overview

Showing links made by five respondents or more.



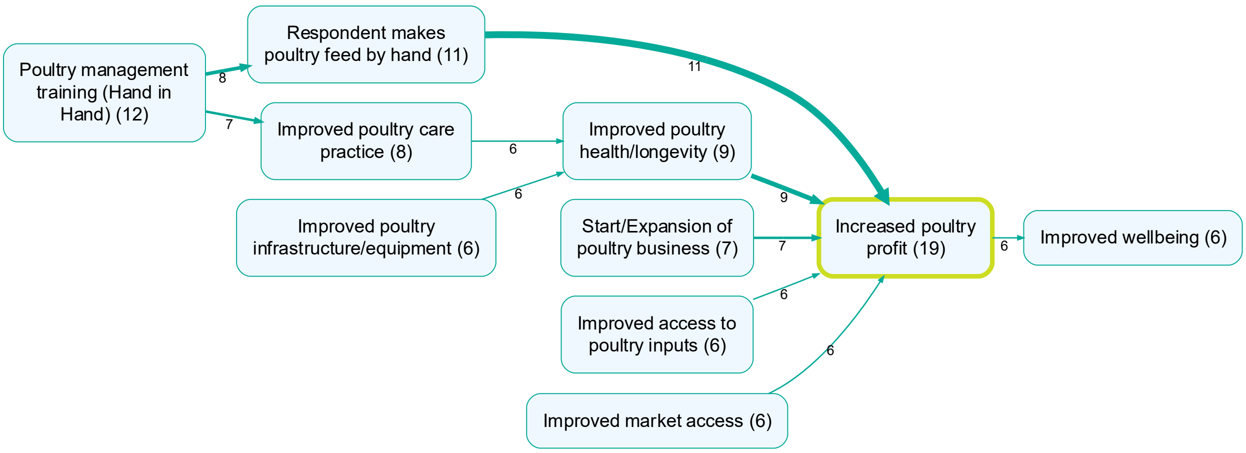
In the next sections, we will look at the changes in profit and income in relation to poultry rearing, crop farming and non-agricultural activities.

2.4.1 Changes in poultry profit

For most respondents (24) income from rearing poultry had increased at some point during the two years of project implementation. The map in Figure 10 shows the most frequently mentioned drivers and outcome of increased poultry profit, showing the links that were made by at least 6 respondents.

Figure 10: Increase in poultry profit

Showing three steps up and one down from the factor in yellow. Showing links made by six respondents or more.



Improved market access helped six farmers increase their profits. Respondents mentioned that locally raised chickens are in high demand as they are preferred by customers. One respondent said he was able to sell directly to a new slaughterhouse and another one to hotels in Mwale and Machakos. Improved marketing skills through training from HiH (4), Equity (2) and other organisations helped some respondents more effectively market their products and access additional customers, specifically using new digital marketing approaches, such as WhatsApp and Facebook, as shown by the quote below. In addition, some groups and key informants also thought that selling as a group was more profitable, as it gave them bargaining power, and helped them to reach a diversity of markets such as schools, churches, local functions and hotels through referral by HiH.

“ Hand in Hand have educated me on digital marketing skills, I currently have WhatsApp for business and a Facebook page which have enabled me to get customers from far away and I am now selling more to the hotels in town compared to before where I relied on brokers and middlemen to do marketing for me which was less effective and they were exploitative. I am happy with digital marketing and sometimes you only interact with the client virtually, the payment is on digital space.

MWF2 - Woman from Kivandini, aged 36-45

Sections 4.3.1 and 4.3.2 showed that the training provided by HiH on poultry management influenced many respondents to start or expand their poultry rearing activities with a commercial purpose and helped them improve their poultry care practices, such as better hygiene management or feeding regimes, which alongside factors like better poultry housing meant chicken grew faster and healthier. The map in Figure 10 shows that the training led to increased poultry profit through these improved poultry care practices and a reduction in the cost of feeds.

While most respondents reported buying their poultry inputs, such as chicks and feed, from local agrovet suppliers or farmers in their CBOs, and for many this had not changed, eleven respondents reported that making the feed by hand had allowed them to reduce the money they spent on chicken feed. Eight of these 11 respondents were taught directly by HiH on how to make the feed. In addition, six respondents had started buying inputs from CBO group members at a cheaper price than the agrovet or at a closer location which reduced transport costs and increased overall profit.

Over the last 2 years I have made some changes in the way I feed my chicken, as I formulate my own feeds together with other group members from Kathome Dairy Farmers group. This is as a result of the training we received from Hand in Hand. This is very cost effective compared to buying ready-made feeds from agro-dealers which is much more expensive.

KAF23- Woman from Kwa Kathule, aged 36-45

Overall, accessing affordable poultry inputs was key to farmers profiting from keeping chickens, and the increased availability of these inputs locally meant that many farmers could more easily access the inputs without paying for transport. Key informants also mentioned that buying inputs in bulk through the group allowed them better negotiation on the price and free transportation of the inputs acquired.

I don’t make it myself, but I buy it from our chairman who makes it and sells it to us at a favourable price compared to buying from the agrovet in Thika or Tala town, which is very far from here. You can spend around KSH.1400 on a motorbike just to go get feeds worth KSH.200

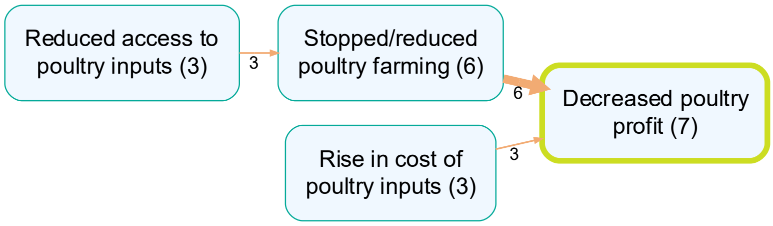
MAF5- Woman from Kyeleni, aged 26-35

The information gathered during FGDs supports the findings from individual interviews. In fact, most groups who have received training from HiH mentioned that their increased knowledge and skills in rearing chickens and in two cases also the use of incubators provided by HiH have led to an increase in the number of chickens that are reared and increased profits from the sale of eggs, chicks and chickens. One group based closer to Nairobi also mentioned that the ready market from Nairobi has allowed them to scale-up their commercial poultry farming.

Despite these positive changes in profit from poultry rearing, a minority of respondents (22%) also reported factors that have led to a decrease in the profits during the two years of the project. This reduction was mostly linked to the increase in the costs of poultry inputs, such as feeds and vaccinations. This has led some farmers to reduce the number of chickens they keep and a related reduction in the profits that they can make from the sale of poultry products.

Figure 11: Decrease in poultry profit

Showing links made by three respondents or more.



> The only challenge is the cost of buying feeds, before I used to feed my chicken on maize that I harvested from my farm right now I have to buy and the prices of feeds has doubled for the last two years
>
> MWF26- Woman from Kivandini, aged over 55

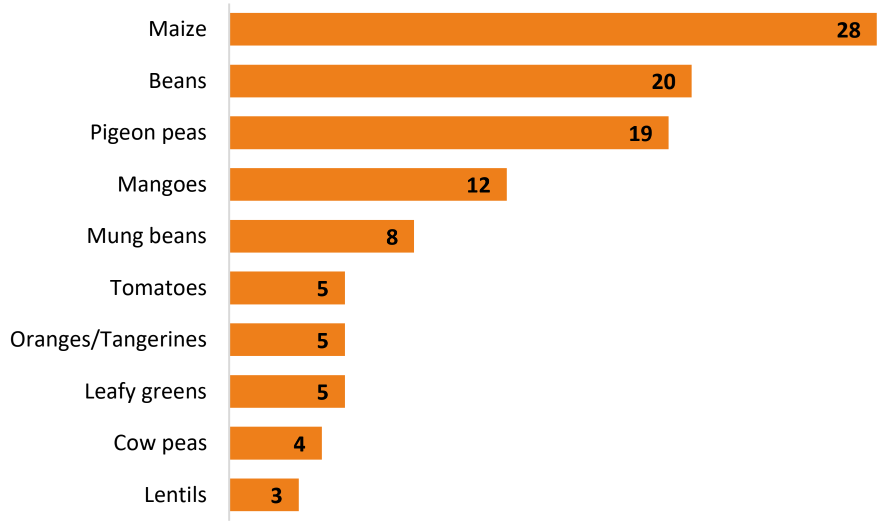
Challenges with access to markets were also mentioned during FGDs and by key informants. For some groups, being able to sell in bulk meant being more able to reach a diversity of markets – also through digital channels. However, for many individual farmers, selling their poultry products individually often meant selling through brokers at a cheaper price. This, together with the increase in the costs of feeds and the increased competition in chicken rearing, led some to reduce or stop their poultry farming with a consequent reduction in profits.

2.4.2 Changes in farming income

Due the open nature of the questionnaire, the study explored changes in income beyond the direct impact of the project on poultry activities. The map in Figure 14 shows causal pathways for changes in income from farming activities related to crops. Respondents grew a variety of crops for sale such as maize, beans, pigeon peas and various fruits (Figure 12). Often crops were grown for both consumption and sale.

Figure 12: Crops grown by respondents at the time of the interview

Showing all crops mentioned by three or more respondents.



About half of the sample, 17 respondents, said they had increased their income through the sale of crops over the last two years. These changes in agricultural income were primarily influenced by improved crop yields and access to inputs, crop diversification and improved access to market. A few farmers mentioned receiving training in crop farming from K-CEP (Kenya Cereal Enhancement Programme) and Hand in Hand, and that led to improved yields, together with other factors such as good weather. A few increased the variety they produced by adding vegetables.

Only a few respondents (7) said their agricultural income had decreased over the same period and this was because of the increased prices of agricultural inputs.

Only a few respondents reported change in their livestock (other than poultry), and livestock was generally kept for subsistence or as a method of saving. Only two respondents reported an increase in income from livestock, related to the sale of milk or cows. There were no reports of negative changes to income, although a few farmers reported their livestock had been injured or died in recent years.

Figure 13: Livestock kept by respondents at the time of the interview

Showing all livestock types mentioned by three or more respondents.

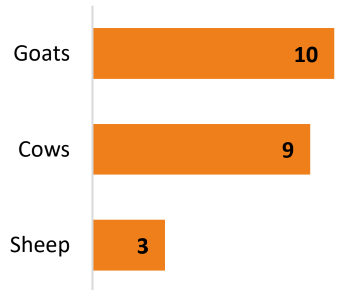
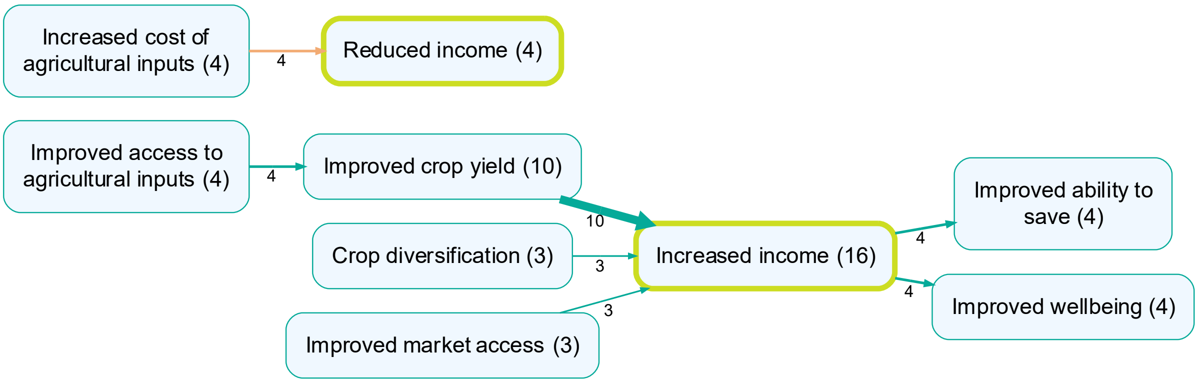


Figure 14: Changes in agricultural income

Showing links made by three respondents or more.



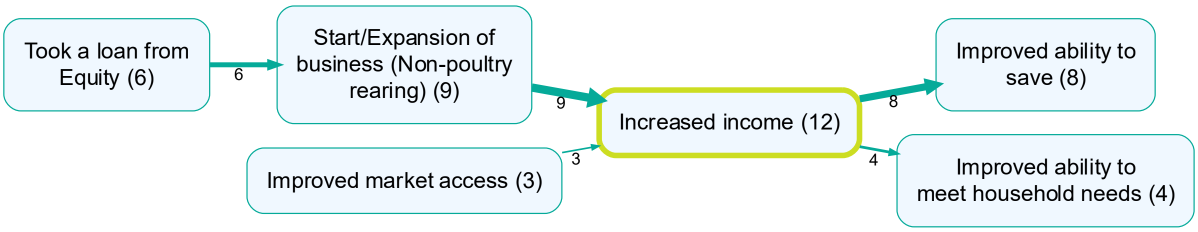
2.4.3 Changes in non-farming income

A few respondents discussed changes in their income from non-farming activities. Nine reported their income had increased as they had started or expanded a non-farming business in the last two years. This includes a respondent selling chicken feed, a vet and an agrovet, who benefited from more farmers in their area rearing chickens. Six of these respondents had taken a loan from Equity to start or expand their non-farming business (see map in Figure 15).

> "I took a loan from Equity Bank which enabled me to buy my motorcycle to use for my business. I paid it off and took another loan worth 70000 KES to buy my DJ desktop…Over the last two years, income from my business has slightly increased. The avocado export business has picked up, and so has my DJ-ing and boda-boda business."
>
> WM12- Man from Gikomba, aged 26-35

Figure 15: Increased non-farming income

Showing links made by four respondents or more.



Four respondents reported their income from non-farming businesses had reduced, for a range of reasons. One interviewee reported her husbands' shop was robbed which set back their business. Poor weather had forced another respondent to stop mining.

The individual narratives on income-generating activities show that many farmers rely on multiple sources of income. The information gathered through FGDs and key informant interviews show that, often, the strongest groups and individuals were those with a diversity of income sources, ranging from poultry, to vegetables and fruit trees, and other livestock. For instance, one group who was doing poultry business together also mentioned that they usually come together as a group also for other income-generating activities such as selling mangoes and other produce. They feel that they are stronger as a group and can make better profits together. This specific group had, prior to this pilot project, received poultry training from KOPIA, and they were also trained by HiH on group dynamics and other agricultural value-chains.

2.4.4 Payment methods

The QuIP questionnaire explored changes in payments methods, asking respondents on changes in the way they pay their suppliers and changes in how they get paid from their customers.

Most respondents reported the way that they made and received payments had not changed. A mix of cash and mobile transactions were used by most respondents, while Paybill was mentioned to a lesser extent. This was also confirmed by key informants who mainly relied on cash and mobile payments, through Mpesa.

Table 6: How respondents pay suppliers (No change)

Method	Source count
Cash	23
Mobile transaction	22
Paybill	7

Table 7: How respondents receive payments from customers (No change)

Method	Source count
Mobile transaction	15
Cash	14
Paybill	3

Three respondents had started to use Paybill to receive money and found this convenient and made budgeting easier, as the money went directly to their bank account. Some respondents who had used Paybill for more than two years had similar reflections. One key respondent also mentioned that Paybill is the best payment method to use when the customer is unknown, as the payment is not reversible like Mpesa.

Cash was preferred by some respondents and their suppliers (19%) as this avoided charges associated with mobile transactions. For one respondent this was a recent change and their customers more often wanted to pay by cash because of increased transaction costs. Four respondents also shared concerns that customers could edit or change the amount of money paid after the transaction.

> Despite having mobile banking, I prefer my customers to pay me by cash because then I can confirm the money. Through M-Pesa some people can edit messages and I didn't go to school much.
>
> MAF7- Woman from Kyeleni, aged over 55

However, many interviewees preferred mobile transactions and said they were convenient (11%), especially for remote sales. Some respondents (17%) also viewed mobile transactions as a more secure method than carrying cash.

2.5 Borrowing and saving

2.5.1 Borrowing

The study explored changes in the ways in which farmers accessed finance during the project period and how that finance supported farmers' livelihoods and businesses. The study purposively sampled respondents who accessed a loan from Equity through the project as this was one of the project's components and the study aimed to better understand the role that loans had in contributing to further changes in their lives.

During group discussions, participants reported that, before being linked with Equity bank, they used to finance their businesses, especially in relation to poultry, using the proceeds from the sale of poultry products and other sources of income, as well as with the money from their merry-go-round and table banking. Generally, table-banking involved borrowing from the group's pool of money with a monthly interest rate of 10% to 20% and members used this option to buy farming inputs, such as seeds and fertilizer. Some farmers noted that table banking can be more flexible than commercial loans and it does not charge fees.

Similar experiences were gathered through individual interviews. In fact, many QuIP respondents had previously taken loans from a CBO and ten reported borrowing from self-help groups or similar organisations in the last two years, often as part of table banking and for smaller amounts than the loans taken from Equity (see map in Figure 16).

Other sources of credit that were mentioned during group discussions are microfinance institutions, which have expanded their outreach in rural areas through agents, such as 4G capital, Kilimo Juhudi, Kenya Women Finance Trust (KWFT), KREP and BIMAS but also SACCOs, digital lending and shylocks. Participants in groups discussions also mentioned that they used to borrow from HiH for a maximum of Kshs.30,000 until HiH linked them with Equity from which they were able to borrow higher amounts.

Eight interview respondents had also taken loans from Hand in Hand (HiH) over the past two years. All the links from 'took a loan from HiH' were mentioned by one or two respondents and so do not appear in Figure 16 – which only shows links to factors related to borrowing made by 4 or more respondents. The HiH loans led to a diverse range of investments; respondents used these funds to cover household needs and to invest in business, poultry and agricultural projects.

All but two respondents had taken a loan from Equity in the last two years. The map in figure 16 shows that 36% respondents said they did so after attending Equity's financial management training. The map also shows that financial management training from Equity (25%), and HiH to a lesser extent (19%), had improved the understanding of respondents of the ways loans could be accessed and how they could be used to improve or start businesses.

> "Before all the training by UTS, Equity Bank and Hand in Hand, I never used to take loans because I was afraid of what would happen if I couldn't clear the loan and they started harassing me. I didn't know anything about insurance. With the numerous trainings, I can say my confidence in managing my finance has improved."
>
> MAF7- Woman from Kyeleni, aged over 55

During group discussions, participants reported the differences between the training conducted by HiH and Equity. The HiH training was provided at CBO level and taught farmers how to save and how to do table banking within their groups. They were also trained on financial management, how to separate business and personal finances, budgeting and borrowing. The Equity loan focused more on how to access loans, the importance of saving as a form of loan guarantee, how to use loans to grow their businesses, record keeping, loan repayment, and different loan types among which the Pamoja loan product which was offered to them. The training was delivered weekly to groups over two months.

After the training, many group members accessed the Pamoja loan product through the group guarantee system, meaning that members guaranteed each other's loans through their weekly savings of KSh200 which is a requisite for being able to access the loan. Every member of the group with an individual account was required to save KSh200 every week for the first three months before accessing a loan which could go up to 10 times the value of their savings.

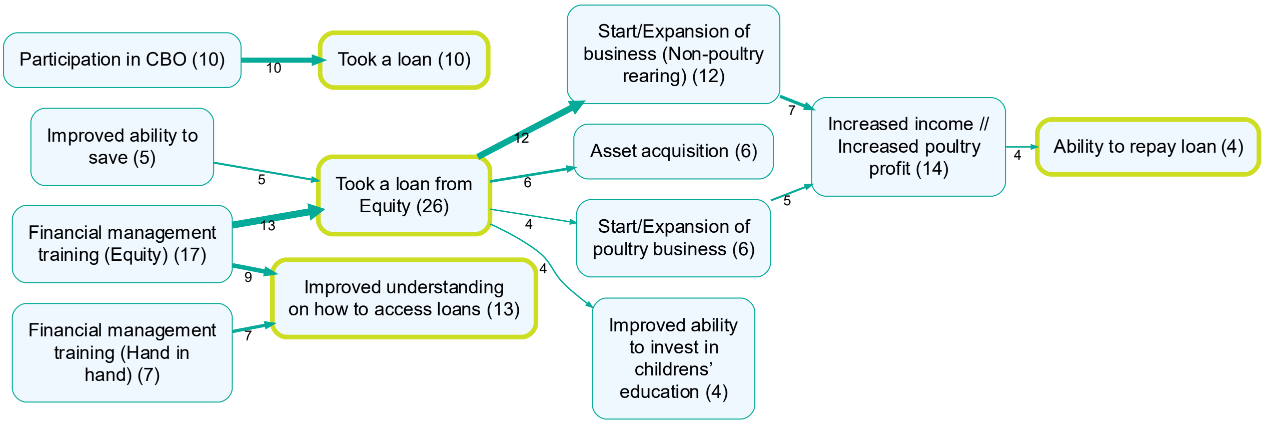
Some respondents told researchers that the loan from Equity had good interest rates (25%) and they were given adequate time to repay the loan (11%). The chairman of a CBO who was interviewed as key informant found their membership with Equity very safe, as he felt that Equity was controlling the system for repayments and that the group was responsible for each other's loan since acting as guarantor. In addition, he mentioned that Equity, unlike other MFIs and banks, would not come to the community to sell individuals' property in case of missing repayments, as these issues would be sorted out by the group with dignity. The quotes below show how group members found the Equity loans to be safe and with better features compared to other sources of capital.

> I took a loan through my group "Mapatano" that I used to complete my house. I chose Equity Bank because their interest rates are lower and they give us more time to pay.
>
> MAF8- Woman from Kyeleni, aged 45-55

> I prefer taking loans from Equity because my group members act as guarantors, and the bank also provides training on financial management, loans, and savings. This was my first time taking a loan, and I feel that taking loans from banks is more secure and offers better interest rates compared to moneylenders
>
> MAF5 - Woman from Kyeleni, aged 26-35

Figure 16: Increased borrowing

Showing links made by four or more respondents.



The map in Figure 16 shows that the most common use of the Equity loans, reported by 33% respondents, was investment in non-poultry businesses. Five of these links were made by respondents aged 26-35. Investment in poultry rearing was mentioned less frequently (11%). Both types of investment generally led to increased profits and, for some (11%), an improved ability to repay the loan. The quote below illustrates one of these links from the training in financial literacy, to access to finance and then the use of the loan for business growth.

> In 2022, I was introduced to Equity Bank by Hand in Hand. They taught us on financial literacy, how to get loans and pay them and how to save. We opened a joint bank account as Mwangaza CBO but allowed us to take loans as individuals. I took a personal loan of KSh10,000 from Equity, bought 10 chickens, feeds and medicine for vaccination.

MWF26 - Woman from Kivandini, aged over 55

Some respondents also mentioned using the Equity loan to increase their assets (17%) and to invest in children's education (11%). For instance, three respondents used the loan to build their houses and one to buy a posho mill. These narratives are confirmed by the information gathered during group discussions where participants mostly mentioned using the Equity loan to invest in existing businesses and starting new ones, to pay school fees and to buy farming inputs.

Although linkages with Equity bank were aimed to support productive investments linked to poultry rearing, one group also reported accessing bank loans to overcome the financial difficulties brought by the drought, which could not be covered by their participation in chamas. In this sense, the loan from Equity might have also played a role in the resilience and ability of households to meet their needs, although not being designed as a financial instrument for emergency situations. It is however known that in contexts where insurance products lack, individuals cope with emergencies through loans, being this from their chama, family or friends, or shylocks.

Six respondents reported reduced access to loans from Equity, and one respondent stated that they would not borrow from either Equity or HiH. Four respondents—three of whom were members of the Kathome Dairy Farmers group—explained that as other members of their group defaulted on loans, they were not allowed to borrow again from Equity. Another woman explained that her sister had advised her against borrowing from Equity after members of their group had defaulted on a loan. The two quotes below indicates some of these challenges that farmers have encountered during their engagement with Equity bank.

Many in our group defaulted on the loan which further barred us from borrowing further from Equity Bank and I cannot access my savings as they were used to offset the defaulter's loan. And I feel very demoralised. I no longer save with Equity Bank anymore and I feel my household is less prepared in case of emergency.

KAF22- Woman from Kwa Kathule, aged 45-55

Some members took a loan and they haven't paid as agreed so we were told by Equity representatives that they are not going to give any member a loan at the moment until the remaining members clear their loans.

MUF28 - Woman from Kitwii, aged 36-45

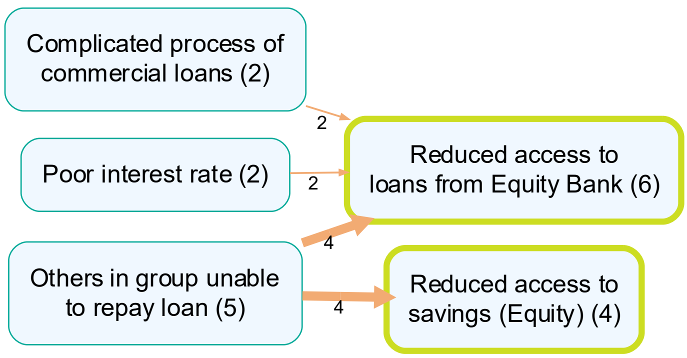
The complicated process to access loans, poor interest rate and rigid repayment structure were also cited as reasons some respondents were less likely to access a loan from Equity in future. The quote below illustrates how the long and complicated process for applying for a loan at Equity.

In 2023 I took a 50000 KES loan with Equity Bank and their interest is high as I was only given 46,700 KES of the 50k. The process of acquiring the loan is long as you need to sign forms and get a guarantor and their mode of repaying the loan is rigid. I am almost done paying the Equity loan and I don't think I would wish to take another one because of high interest.

MWF1- Woman from Kivandini, aged over 55

Figure 17: Decreased access to loans

Showing links made by two or more respondents.



During group discussions, similarly to individual interview respondents, some participants raised concerns about some features of the Equity loan, including the rigid repayment structure without a grace period, the high interest rate, the fixed saving amount which farmers cannot withdraw as it is used to guarantee each other's loans, and several charges such as processing fees, the insurance fee and the advocate fee. Another concern raised was the minimum number of group members needed in order to access the training and loans from Equity and in a couple of instances, groups mentioned that they had to pay high transport costs to deposit their loan repayment to the Equity branch in Tala. Another group, on the contrary, mentioned that they used Paybill to repay their loans.

Two of the seven groups selected for group discussions reported that they had disbanded because some members defaulted and they were now no longer working as a group, and no longer borrowing from Equity. Some members also reported having savings at Equity that they could not withdraw after other members in the group defaulted. The two groups are from the same locality and they both got together in order to access the Equity loan. One of the two had previously received training from HiH through the local CBO, while the other group had never received training. Interestingly, both groups mentioned that they lacked a common vision and, in some cases, an internal structure.

Although these may not be the only causes of group disintegration, the results suggest that a more careful review of the group characteristics, including the history of the group, its vision, common business interests and ventures, may help in screening groups for their readiness to access commercial loans for further growth and development.

Generally, the members of the other five groups shared a longer history of working together, a detailed group constitution, and a common vision or interest, such as working in a specific sector, including poultry, and tree farming. Some of them had also received training in group dynamics from HiH which helped internal communication and collaboration, training from other NGOs over the years prior the project pilot and had expanded their group businesses and vision over time.

2.5.2 Saving

Overall, all interview respondents mentioned a driver or outcome of improved ability to save, however eight respondents also mentioned saving less.

Improved ability to save

Respondents mentioned several drivers to their improved ability to save shown in the map in Figure 18. Twenty respondents (56%) mentioned opening a bank account with Equity Bank within the last two years and 17 respondents (47%) reported saving using this account. Financial management training from Equity and HiH also helped 17 respondents to save more, and during group discussions participants also mentioned that these training helped them develop a culture of saving. Universal Traders Sacco (UTS) was the only other provider of financial management training mentioned by respondents and two farmers explained this training had improved their ability to save.

> I have gained knowledge and skills from different organisations like SACDEP and Hand in Hand on different ways of farming and value addition. I also have knowledge of proper saving and borrowing. I have already started implementing them and I can see the results already.
>
> MAF6 - Woman from Kyeleni, aged 26-45

As outlined in the previous section on borrowing, in order to borrow from Equity Bank, farmers were requested to save KSh200 per week for at least three months before applying for their first loan and then to continue with the weekly saving throughout their engagement with Equity bank. These individual savings are considered security by Equity Bank under the Pamoja loan product in which group members guarantee for each other through their savings. Based on this, most farmers interviewed and also those who participated in the focus group discussions reported an increase in their regular savings.

Thirteen respondents (36%) saved with their CBOs and seven respondents (19%) saved with other banks and SACCOs such as Kenya Commercial Bank (8%), Kwetu Sacco (8%). A couple of respondents also mentioned saving with mobile banking apps. Many respondents had several methods of saving and during group discussions participants also said that they saved through table banking and other groups, and in their homes and in their Mpesa.

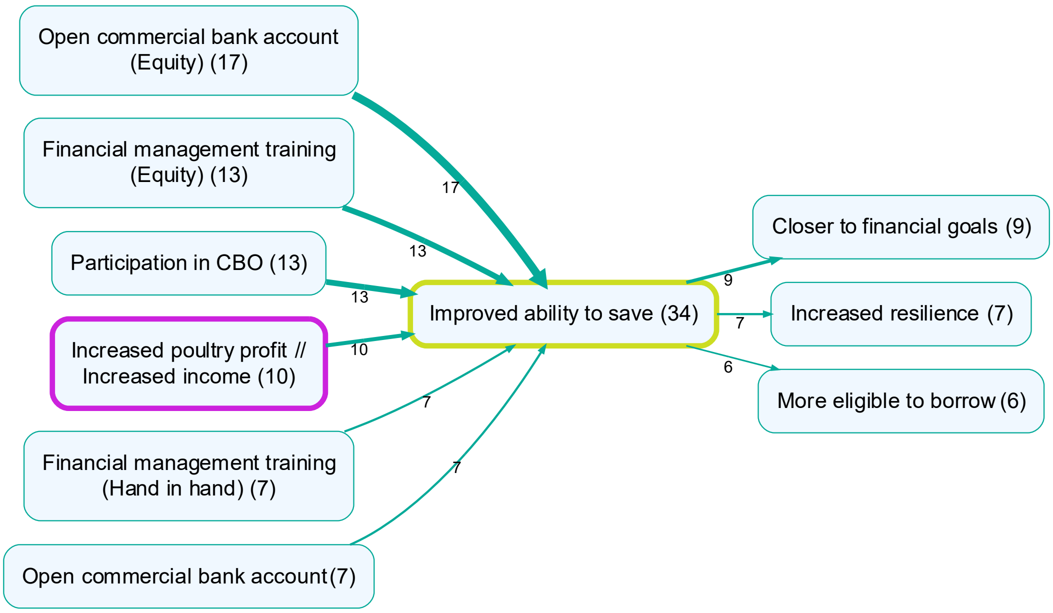
> I do save some money from my profit through Equity Bank, Kwetu Sacco and also at the Chama. My savings have increased over the last 2 years, since I have multiple channels of savings now.
>
> MWF15 - Woman from Kivandini, aged 45-55

Ten respondents (28%) also linked their income from poultry and other business ventures to their improved ability to save.

> I have increased the amount I save in KCB from 200kshs per month to 500kshs and all the savings come from agrovet business.
>
> DM35 - Man from Kyeveluki, aged 26-35

Figure 18: Improved ability to save

Factor highlighted in purple shows two combined factors. Showing links made by six respondents or more.



Through increased ability to save, nine respondents (25%), four of whom were aged between 26-35, reported feeling closer to their financial goals and seven (19%) that they felt more resilient. The quote below illustrates this causal pathway.

> The financial management training through Equity Bank and my improved saving skills and the way my business is doing well are bringing me closer to my long-term goal of financial independence.
>
> WM9- Man from Gikomba, aged over 55

Six respondents (17%) explained the more they saved the more likely they would be able to access loans in the future and that this was something that they learnt from the financial training provided by Equity. Two respondents mentioned learning this from UTS as well as Equity.

Reduced ability to save

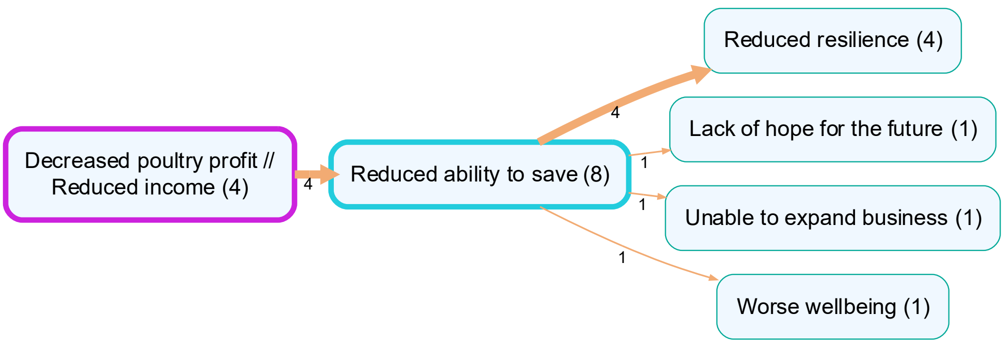
Eight of the 36 respondents (22%) mentioned that their ability to save decreased over the two years of the project. It is important to note that some respondents reported links to both increased and decreased savings during the project time. The map in Figure 19 shows that a reduced ability to save was often due to changes in income from different sources.

> “My ability to save has significantly reduced because my income has reduced and the little I have mostly goes to the school fees and repayment of debts and loans.”
>
> MUF19- Woman from Kitwii, aged 45-55

> “My financial confidence and resilience has significantly reduced and I feel my household is less prepared for any emergencies due to the demand of school fees, the illness we are facing at the household as well as the increased prices for farm inputs which is stressful and demoralising.”
>
> NM18- Man from Ngulini, aged 45-55

Figure 19: Reduced ability to save

Showing one step up and down from the factor in blue. Factor highlighted in purple shows two combined factors.



Four respondents also told researchers they were unable to access their savings from Equity since other members of their groups defaulted on their loans, three from Kathome Dairy Farmers.

> “I stopped saving with Equity last year when they took all our savings to settle loans for other members who had defaulted.”
>
> MUF29- woman from Kitwii, aged over 55

> “I am saving with Equity Bank because you have to give a mandatory share which goes to your savings unlike before when we used to save voluntarily through table banking in our chama. It’s a good thing to encourage savings but its burdensome when you don’t have the money.”
>
> MWF16- Woman from Kivandini, aged over 55

During group discussions farmers also raised the same issue saying that they could not withdraw their savings from the bank until all group members had finished repaying their loans. They reported that because savings were considered as security on each other's loans, they would have to wait until all loans had been repaid in order to withdraw their savings. However, that would have also resulted in them having to leave the group, with the possibility of the other group members then being no longer unable to borrow given the bank's minimum requirements in terms of members for a group to access the Pamoja loan product. One key informant from a CBO explained that the money from the group account and from individual accounts can only be withdrawn if no one in the group is in arrears in their loan repayment.

2.6 Decision-making

The QuIP questionnaire enquired about changes in how decisions are made regarding business and farming activities, borrowing and household expenses. Most respondents reported how they made decisions in their household had not changed over the last two years and that they made their decisions jointly with their spouse. Table 8 shows that sixteen respondents (44%) mentioned making decisions jointly with their partner while ten respondents (28%) did not currently have a spouse and so made all the decisions on their own.

Table 8: Decision making (No change)

	Source count	
Decision-maker	**Male** (12)	**Female** (24)
Joint	4	12
Solo	4	6
Respondent is lead	1	2
Other family members	1	2
Total	10	22

One woman and one man reported that their spouses had recently passed away, leaving them solely responsible for decision-making. Another man had recently married and since had made decisions jointly with his wife. Only one woman reported changes to the decision-making due to a factor external to the household. She had attended poultry, agricultural and digital marketing trainings, including poultry and digital marketing training from HiH and financial management and digital marketing training from Equity. The expertise she had received from trainings meant she made more decisions than her husbands related to farming and borrowing as she was more knowledgeable. The quote below illustrates this case.

“I am the one who manages the farming business because I am skilled and knowledgeable in farming having undergone the various trainings in management and daily practices required in farming, but my husband is very supportive as he runs a different enterprise away from farming.

When it comes to borrowing especially in the last 2 years I make decisions because I am the one who was enabled by Equity Bankduring the financial management training offered to our group (Mwangaza CBO) but my husband is my guarantor and he supports this.

MWF2 - Woman from Kivandini, aged 36-45 ”

Two female key informants – a Lead Farmer and paravet, and one who was a Lead Farmer, paravet and owned an agrovet – also discusses changes in their communities and with respect to the role of women. The main change in women’s role was their economic contribution to their households. Unless before, the two key informants thought that the fact that women were no longer idle and could get money both from their chamas and businesses, such as their poultry activities, and also access loans from Equity was a positive change. This was seen as a way for women to do something with their own money and also contribute more to household decisions. One informant shared that overall, as women are more active in working and bringing food on the table, men share more responsibilities in raising children and taking them to school.

One key informant also felt that in her community about fifty percent of individuals are left behind and had not grown as much as others. Particularly, she said that when families have young children going to school and parents only rely on casual labour, it becomes more difficult for them to raise their living standards. As a result, she tends to advise young parents to start small businesses, like keeping poultry, as another source of income. In this sense, she feels that groups who have grown from poultry farming and people like herself can be role models in the community and inspire others to do the same.

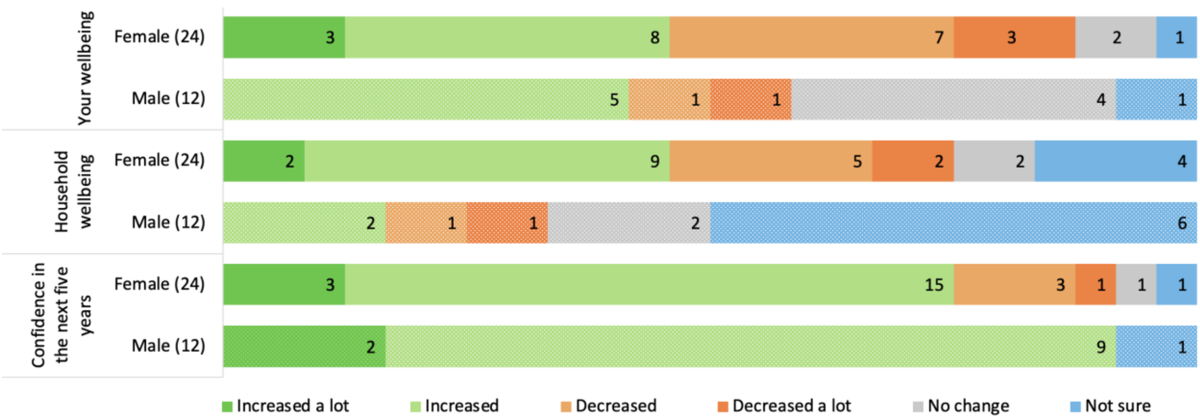
2.7 Wellbeing and confidence

The last section of the QuIP questionnaire enquired about changes in respondents' wellbeing and that of their household, their feeling of resilience and confidence for the future.

2.7.1 Wellbeing

Within the closed question responses, farmers gave mixed responses to the questions regarding wellbeing, with a slight majority of respondents reporting positive or no changes. Eleven female respondents reported an increase in their wellbeing and that of the household, while ten and seven reported a decrease in their wellbeing and that of their household respectively. Only five male respondents reported an increase in their wellbeing and two an increase in the household wellbeing, while two reported a decrease in both areas of wellbeing. Half of male respondents were not sure about changes in their household wellbeing.

Figure 20: Closed questions for wellbeing and confidence in the future



This table shows the percentage of the female and male respondents who selected the closed question response in the first column.

	Closed question					
	Your wellbeing		**Household wellbeing**		**Confidence in the next five years**	
	Female (24)	Male (12)	Female (24)	Male (12)	Female (24)	Male (12)
Increased/ Increased a lot	46%	42%	46%	17%	75%	92%
Decreased/ Decreased a lot	42%	17%	29%	17%	17%	0%
No change/ Not sure	13%	42%	25%	67%	8%	8%

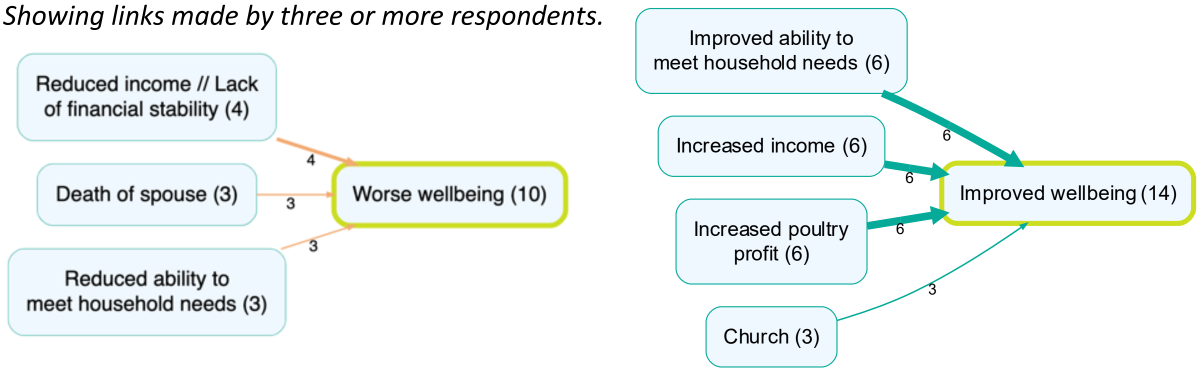
Similarly, in the open questions, we found mixed stories of changes, with a few more respondents discussing positive changes to their wellbeing and drivers to these changes.

The maps in figure 21 show that wellbeing was often influenced by changes in income and ability to meet household needs, which was also linked to income. Six respondents specifically linked the profit they made from poultry activities to an improvement in their wellbeing, as shown by the quote below. Increased church attendance also improved the wellbeing of three respondents, two of whom were from the Mapatano Syumbni group in Kyeleni.

> Being able to support my family through the chicken business has made me happy.
>
> MAF7- Woman from Kyeleni, aged over 55

Figure 21: Changes to wellbeing

Showing links made by three or more respondents.



2.7.2 Resilience

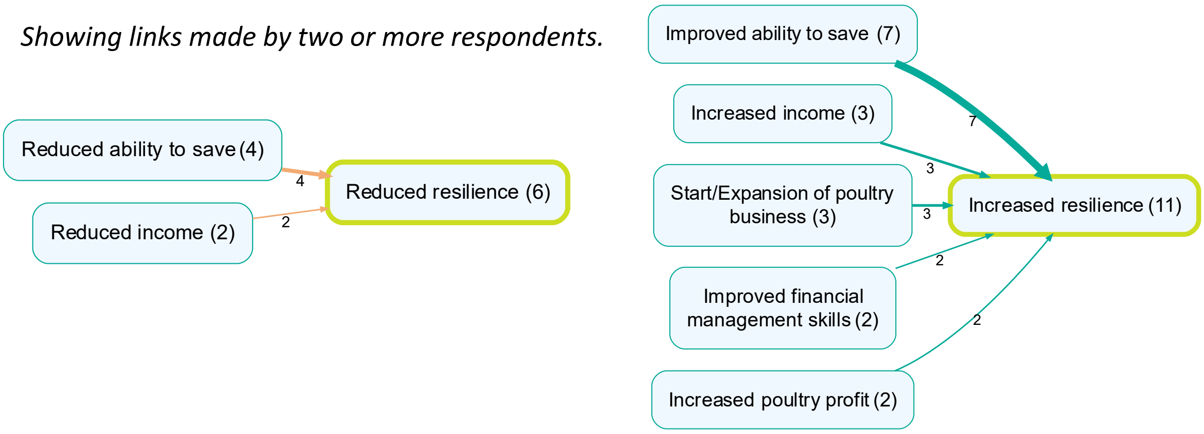
During qualitative interviews, not all respondents discussed changes to their feelings of resilience. However, those who did often linked changes to their income or ability to save to either reduced or increased feelings of resilience as shown in the maps in figure 22. More respondents mentioned feeling more resilient and this was mostly linked to their improved ability to save. The following quote illustrates how a respondent felt that mandatory saving with Equity made him more committed and also increased his confidence and resilience.

> This is good because if it wasn't mandatory, I wouldn't be committed as I am. My financial confidence and resilience as increased because I always strive to have money to save, because that will be very helpful in the future.
>
> WM25 - Man from Gikomba, aged 45-55

> Right now I am prepared in case I need money to spend on an unexpected emergency compared to two years ago because I have enough savings in my account.
>
> MWF26 - Woman from Kivandini, aged over 55

Figure 22: Changes to resilience

Showing links made by two or more respondents.



For five respondents, expanding their poultry business or increased income from poultry farming improved their feelings of resilience. As presented also in the quotes above, having a fall-back option makes respondents feel more resilient, as they can sell poultry in case of an emergency. Overall, there were no significant differences in the links made across the sample.

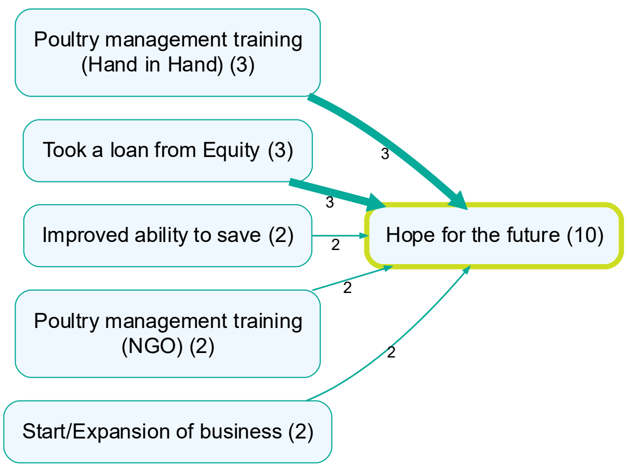
> I feel I am confident and well prepared in case of an emergency compared to two years ago because I started a chicken farming which I use as financial security, I sell them whenever I need money instead of taking money from my business.
>
> MWF27- Woman from Kivandini, aged 26-35

2.7.3 Confidence in the future

When asked about their confidence in the future of their businesses and farming activities, the majority of respondents were confident that their businesses would either increase or increase a lot (Figure 23). Narratives about confidence in the future were dominated by references to poultry training or taking a loan from Equity. Respondents who elaborated on this question mentioned that having received training from HiH and other NGOs, taking a loan from Equity, being able to save and start or expand their businesses made them confident about the future of their income-generating activities. There were no significant differences in the links made by different groups in the sample.

Figure 23: Changes to confidence in the future

Showing links made by two or more respondents.



The fact that I can access a loan of over 250,000 KES, I feel I am confident the future of my business will improve.

KAF24 - Woman from Kwa Kathule, aged 26-35

Two women said they had become less hopeful over the last two years due to the increased cost of agricultural inputs, reduced savings and inability to expand their poultry business due to limited resources.

Several respondents shared their plans and aspirations for the future. Many respondents hoped to increase their income or save in order to acquire assets, such as land, or to undertake home improvements. Six respondents hoped to restart or expand their poultry farm. Three women reported their hopes to obtain a loan from Equity to purchase assets or start rearing chickens again.

Table 9: Confidence in the future

Showing hopes/aspirations mentioned by two or more respondents.

Factor label	Number of mentions
Asset acquisition	8
Start/Expansion of poultry business	6
Start/Expansion of non-poultry business	2

One woman explained that she could not attend previous poultry training sessions as she was aways for businesses purposes. However, she has recently joined the group and bought a few chickens, thus she wished to attend a HiH training on poultry management to improve her poultry management.

For me to achieve the chicken rearing project I want to commit myself to attending these trainings offered by Hand in Hand to improve my knowledge and skills.

MWF27- Woman from Kivandini, aged 26-35

3 Analysis of Key Informant Interviews

This section considers the six open-ended interviews carried out in September 2024 with seven key informants from FSD Kenya, Equity bank, Hand in Hand East Africa and the Ministry of Agriculture. They present respondents' perspectives on the pilot design and aim, the capacity of the stakeholders to carry out this pilot and meet the needs of the targeted farmers, as well as the potential for this pilot strategies to be sustainable and replicated in other contexts.

3.1 Background and pilot design

The Tala pilot was designed based on the previous experiences and strengths of the three partners. FSDK and Equity Bank have a long history of working together; in the years before the Tala pilot they had worked together on a livelihood pilot programme in Marsabit where they partnered to provide finance to cash transfer programme beneficiaries. This pilot provided several learnings which were useful for the Tala pilot such as using an entry strategy through one value-chain, adopting a market system approach to involve several stakeholders, and providing both financial and non-financial services to the targeted beneficiaries.

Another experiment conducted in Machakos by FSDK also helped to inform the Tala pilot as it showed that smallholder farmers in several cases lacked finance, while the poultry-value chain came up as a potential entry point to improve livelihoods for low-income households. At that stage FSDK was introduced to HiH by a common donor.

Key informants reported that they HiH seemed the right partner for what FSDK wanted to implement and that the partners had similar goals. HiH was already implementing a bigger project focused on several value-chains, providing training to farmers, market linkages and finance through loans up to 30000Kshs and through asset finance, to provide water tanks, solar panels and other assets. The two organisations complemented each other strengths and experiences and after an initial validation visit to groups in Tala, it became apparent that farmers needed additional finance, thus Equity Bank was brought into the pilot project.

Equity Bank was selected as a partner for three main reasons: 1) the previous history of collaboration with FSDK in Marsabit, 2) during the validation phase some farmers shared that they had already an Equity account, and 3) the alignment in values and goals with Equity Bank to reach rural and marginalised farmers. FSDK provided a 50% Credit Guarantee to cover the risk of the bank for one year, and then renewed for another six months in July 2024 for half the amount to cover the outstanding loans. FSDK also funded the non-financial services provided through this pilot, such as training of lead farmers (LFs) and paravets, and other activities related to market linkages delivered by HiH to farmers.

3.2 Pilot delivery strategies

The Tala pilot was implemented by HiH as a part of a bigger project that they were already implementing with CBOs in the area, and it was supposed to complement and strengthen their other activities. Tala was already known for poultry projects and HiH had previous experience in the area.

Two main approaches were used for the delivery of the non-financial activities of the project. The first is the Lead Farmers approach. This consisted in training LFs selected from each CBOs for their experience and capacity in the poultry value—chain, train them on several topics and then assign them between 3 to 5 groups each to be trained. LFs were trained on several aspects of poultry farming, such as feeding, vaccinations, and digital marketing, in collaboration with an officer from the Ministry of Agriculture. A simplified curriculum on poultry was developed through this collaboration. In addition, LFs were taken for exposure visits to other counties and also to model poultry farms. LFs were paid by HiH for training the groups that they were assigned.

One key informant reported using farmers from the community to train groups as one of the successes of the pilot, since LFs were better able to adapt the knowledge to the local conditions and also bring in practical examples from the area. Another key informant also mentioned that the exchange visits worked very well: the aim was to change the mindset of farmers from small scale to large scale farming and he thought that such exchange visits helped in changing farmers' mindset to a more business mindset.

A second delivery approach was used with the training of paravets and the delivery of their services. Among the 40 trained LFs, 15 were selected to be trained as paravets in collaboration with the Kenyan Veterinary Board. The paravets were trained in detecting poultry diseases and vaccinating the birds and provided with a cooler box and a first batch of vaccines. In this way, they can support disease control and vaccinations within their groups, while also providing the same services to other groups and farmers in exchange of a small fee generally to cover the transport cost of the paravet. Promoting the bulk-buying of vaccines across farmers and groups and providing the paravet services locally allowed many more farmers to access vaccinations.

In addition to these models of training and delivery of services, HiH supported market linkages with hotels, linkages with input suppliers such as Savannah in Tala, and provided CBOs with ad-hoc training and some assets to expand their poultry businesses. This was generally done after assessing the main needs and strengths of CBOs. For example, one CBO with capacity to produce feeds was provided with a mixer and was taken to an exchange visit to learn about feed formulation, while others were given incubators and were trained in egg hatching. In addition, technical support and training on market linkages for both inputs and produce were also provided by a consultant directly to groups.

While the delivery of paravet services appears to be sustainable beyond the project, the delivery of training through LFs might be more challenging as it was not built on a fee model. This could mean that LFs can deliver training to groups or farmers in their vicinity, but not areas outside of their community. One key informant reported that if the project was to be replicated, he would suggest increasing the number of LFs trained by the project in order to have more of them throughout several communities, increasing the outreach.

Access to finance and financial literacy training were provided by Equity Bank jointly with Equity Foundation. The Foundation was responsible for the initial training to groups, which was considered as the first way of de-risking since groups were taught about how loans work, debt management, saving, budgeting and also digitization, in addition to a training on entrepreneurship. The training also clarified the terms of a group loan and the fact that as group members they would have to guarantee for and therefore check on each other. This was provided in the initial 3 months of engagement, during which group members were asked to start saving weekly in their individual bank accounts. Equity Bank also facilitated on-demand training through their credit officer who would support linking members to specific specialists based on their needs, such as the social development officer or an animal husbandry vet. Although the training was generally well received by groups, one key informant mentioned that some groups members were illiterate and found it difficult to follow the training.

The loan facility offered by Equity was discussed and agreed with FSDK and it was an innovation from their existing group loan products. The initial agreement was to tailor the loan product to the production cycle of the farmers, which in this case was linked to poultry activities. However, members could apply for this loan even in cases where poultry was not their main source of income, as long as they were also rearing poultry for sale.

Groups which had already worked with and taken a loan from HiH were eligible for the Equity loan. In addition, each member was asked to start saving every week KSh200 and have a business to demonstrate their ability to repay the loan. The ability to save regularly was another way of de-risking for the bank, as it was used to demonstrate member's ability to repay. Indeed, members who saved high amounts in one go before applying for a loan were carefully scrutinised – as the amount saved might have come from a money lender rather than their business. Such practices might have penalised the applicant. Given that the individual savings were used to guarantee each other's loans, the way for a group member to withdraw the savings would be by withdrawing from the group itself.

The loan approval also required the signature of the spouse. However, in some cases women did not want to disclose that they were taking a loan to their husband for fear that the money would be misdirected to other uses rather than their business ventures. In such cases, Equity Bank allowed women to have another guarantor option to sign for their loans.

During the vetting process, Equity Bank also checked for business licences, in such cases where this applied, and looked at record keeping for those clients who already had an active business. One key informant from Equity mentioned that it is key for the bank to see that there is consistency and growth in the business of the clients in order to approve subsequent loans. This clearly shows that linkages with commercial banks can only work for certain segments of the poor who are slightly better off and have active income-generating activities.

Members could apply for a loan amount ten times the value of their savings for their first loan, and five times the value of their savings for subsequent loans. Groups had to consist of at least 12 members and a maximum of 30 and one key informant mentioned that this helped the bank manage its costs in reaching distant rural clients. The following repayment schedules were available to clients:

- Only pay the principal in weekly instalments until the end of the production cycle, and the interest rate at the end of the production cycle (6 months);
- Only pay the interest rate in weekly instalment during the production cycle and the full principal at the end;
- Pay weekly instalment comprising of both the principal and interest rate.

Although the first two repayment schedules were designed specifically for the targeted groups with poultry businesses in mind, the majority of clients decided to repay using the third option since they had other sources of income beyond poultry and that meant that they started the repayment of the first instalment the week after receiving the loan. One key informant mentioned that, in future similar projects, she would advise farmers to apply for the loan based on their business cycle and repay according to that rather than using other sources of income. Groups were trained on digitization and how to repay their loans digitally either through an Equity agent or using Mpesa, without travelling every week to the Equity branch in Tala.

Some of the loan features were problematic for some borrowers, namely the repayment schedules and the fact that savings could not be withdrawn unless the member left the group. In terms of repayment, leaving the full principal or interest rate to be paid in bulk might have been a burden for households with irregular cash flows and inability to save large amounts. Also, a poultry business can be risky, as reported by a few key informants, and farmers may experience difficulty in repaying a large sum of money in case of business failures. In fact, although several respondents and key informants reported that the mortality rate had significantly reduced, a few members reported difficulty in loan repayment due to the death of their birds or in some cases birds being stolen.

While the regular weekly savings is positive to promote a culture of savings, it could become problematic for members who need to withdraw savings, perhaps for an emergency. Having the full saving amount blocked in their individual account over time could lead farmers to revert to money lenders in case of an emergency, and lead, in the long term, to farmers leaving their group. This could eventually result in the disintegration of the group or other members being unable to borrow if they fall below the minimum threshold.

Based on the group guarantee, individual savings constitute part of the guarantee of the loan. Members co-guaranteed each other and in case of default, first the group would be responsible to encourage repayment within the group. If the money was not recovered and the group folded, the bank would recover the outstanding loans through members' individual savings and if these were not enough, they would have used the CG. Key respondents mentioned that the bank was cushioned by the CG and this is what allowed Equity to take the risk to serve the groups targeted by the Tala pilot.

Key respondents indicated that the groups served under this pilot were generally more vulnerable than other groups directly recruited by Equity Bank and were located in distant communities which are generally unreached by both Equity bank and MoA.

3.3 Organisational capacities to implement the pilot

This section summarizes the changes in the organisational capacities of the implementing partners. Overall, FSDK and HiH did not hire specific staff dedicated to the Tala project, while Equity Bank hired two additional credit officers for the Tala branch.

Key informants reported that there were regular monthly meetings among the three partners and that these were useful to track progress and address challenges. However, beyond these regular meetings, FSDK did not interact extensively with the project and the agreement with HiH did not include a dedicated team from HiH. One key informant from HiH reported that although the Tala pilot was part of a bigger project, it would have been useful to assign specific staff to handle the project activities and workplan. Instead, the existing staff continued to work with the same groups and in the same areas, with the technical support from MoA on the poultry training and an external consultant supporting with market research. In addition, HiH experienced an issue with high staff turnover in Tala. This made the implementation and the relationship with groups and with Equity Bank in Tala more complicated, as well as the collection of regular and reliable monitoring data.

Equity Bank experienced some staff turnover at the beginning of the pilot, but this did not affect the implementation, as they had not started linkages with the groups by that time. With the cushion provided by the CG, two credit officers were hired and trained specifically for this pilot. These officers were trained on different loan products and lending procedures, as well as on group management. In total, the Tala branch has three credit officers, and these will be retained even after the end of the pilot project, in order to continue serving the groups that joined Equity Bank during the pilot project and potentially additional groups.

3.4 Partnership arrangements

When asked about partnership arrangements, key informants reported both successes and challenges. The roles of the three partners were well defined and their strengths complemented each other. The CG provided by FSDK and the support of HiH allowed Equity to reach groups of low-income farmers from very rural communities which would have been very difficult for Equity to reach on their own and in a short time. HiH's good reputation in the communities also helped the linkages with Equity Bank.

However, the handover process of groups from HiH to Equity presented some challenges. Key informants reported that given that HiH officers also had lending targets with the groups they worked with, the linkage with Equity Bank took longer than expected. This risk was not initially identified and it took a while for the three partners to understand the origin of the problem and address it. HiH reduced the lending targets for their officers in order to facilitate the handover. Moreover, key informants from Equity also reported having issues with the initial groups that were introduced to them as they were not suitable for linkage. Through meetings between the partners, the expectations were clarified and the first few linkages between interested groups and Equity Bank were made in 2022. Equity Bank officers worked with HiH officers to select groups which would be able to take loans and learnt along the way, including from some unsuccessful linkages.

3.5 Monitoring and results of the pilot

Key informants were asked to share their reflections on monitoring and the results they have observed in the organisation as well as in the communities and the groups they worked with.

There did not seem to be an agreed M&E plan and list of indicators agreed among the three partners. However, some monitoring data were collected by HiH and Equity on a regular basis. HiH collected data on linkages with Equity, adoption of NHIF insurance, and the number of formal and informal contracts stipulated by farmers with clients. Equity Bank collected data on loan disbursement and repayments, as well as whether members kept up with regular savings and attended weekly; missing the meetings and the weekly saving might signal that the member is no longer able or willing to repay the loan.

Key informants from HiH reported that they did not experience challenges during the implementation and overall, they found their engagement with farmers to be effective. They observed an increased adoption of the new practices related to poultry management and CERA, an increase in poultry businesses and profits, a reduction in mortality rates, increased market opportunities and a change in mindset with more members taking up poultry as a business rather than a side-activity within a mixed farming approach. Key informants from HiH and also from the communities said that the groups which have been trained and have started poultry businesses can no longer be compared to other groups in the communities as they have grown substantially in the last two years.

Key informants from Equity Bank reported that as an organisation the pilot allowed the group banking department to pursue their mandate to reach rural areas and groups with no credit history and that would have not been reached otherwise. They felt that generally the bank had built a good reputation in those communities. The bank reached its lending goal of KSh20 million and had 265 active clients in September 2024 (191 women and 74 men), and never used the CG. They also reported some stories of changes in their customers who have grown and started new businesses. There were a few accounts in distress; two groups that were linked disintegrated and stopped taking loans, and in one case the bank accessed members' savings to recover the loans.

A key informant from Equity Bank indicated that the number of groups reached under the pilot was too small for them to see a significant impact in the communities. As agreed, there were three cycles of loans, but they felt they might need more lending cycles to see a significant changes in their clients.

By the time of this study, most respondents had accessed one loan, while only a few had accessed a second or third loan. The pilot might have benefitted from an extension, given that after the initial challenges with the linkages Equity Bank had increased the number of linkages during 2023.

3.6 Sustainability and replicability

Key informants reported that ensuring sustainability was one of the primary objectives across partners. In terms of the sustainability and scale up of poultry business, key informants believe that the results of the projects are sustainable for the following reasons:

- Farmers have acquired new knowledge and skills in poultry rearing. This is backed up by the evidence collected through QuIP individual interviews and focus group discussions presented in Chapter 2;
- Lead farmers can continue to provide training to the groups. This can work with their existing groups, while it may be more difficult for LFs to train other groups without a fee-for-service approach in place;
- Paravets can provide vaccinations for poultry and support in the identification of poultry diseases to their communities;
- Groups have learnt how to prepare their own feeds to cut production costs and some farmers started buying local feeds from other CBO members;
- Members have acquired new marketing skills, in some cases also using digital marketing tools. This reason is backed up by the evidence collected through QuIP individual interviews and focus group discussions where respondents mentioned the importance of the digital marketing training received;
- The linkage with MoA will ensure further technical support on a demand basis. While linkages were created and MoA expressed its availability to support groups, there are staff limitations that may limit this future support ;
- Access to finance will be ensured through the links with Equity Bank, which will keep the three credit officers at the Tala branch and will continue their relationships with the active groups.

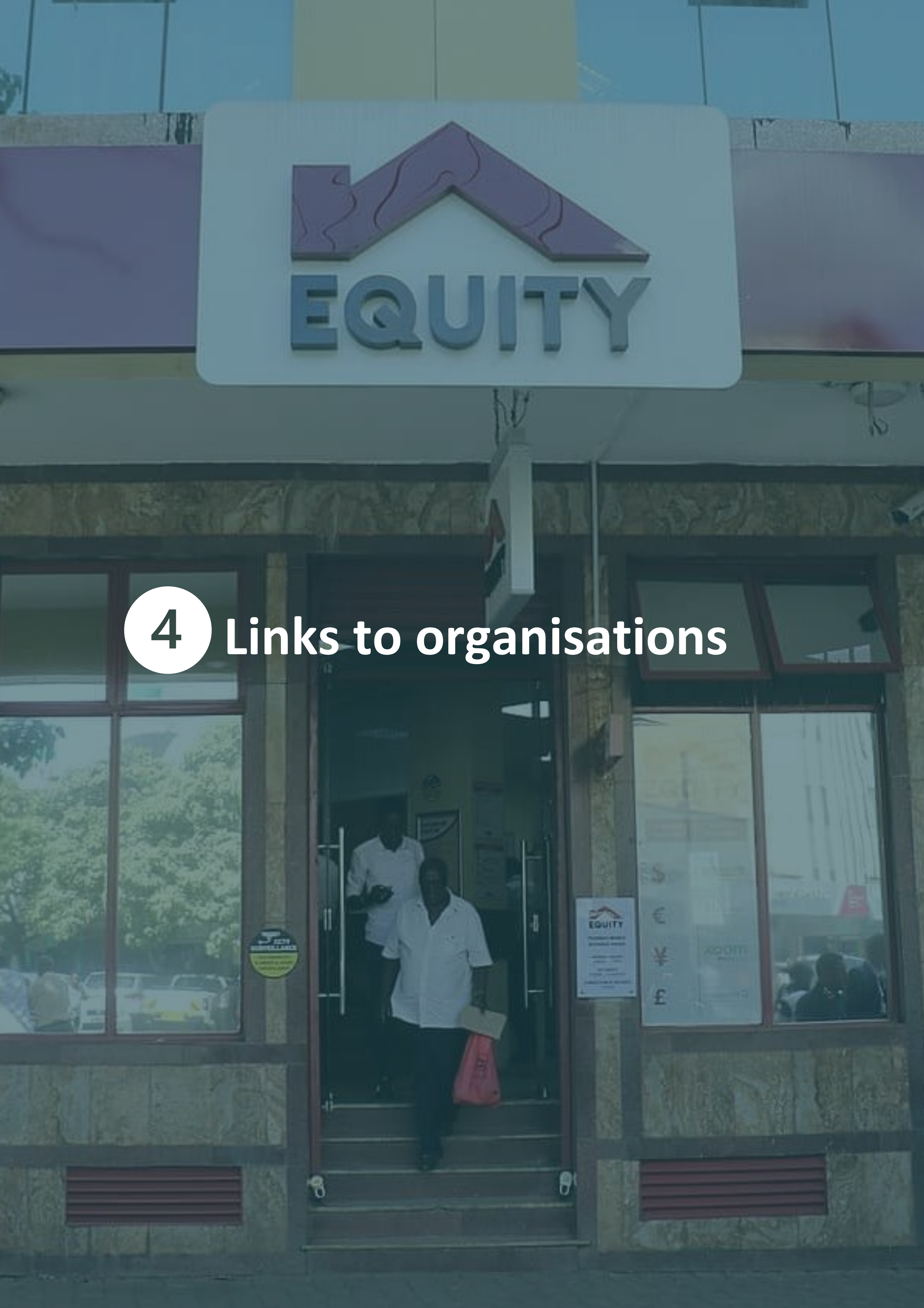
A key informant from HiH reported that the LF approach had already been replicated for the dairy value chain, while a similar partnership with Equity Bank was already established in other seven branches by the time of this study. In addition, the groups and CBOs could be an entry point for a future NGO starting work in the area.

The key informant from the MoA reported that due to staff shortages, they can generally reach distant rural areas through collaborations with NGOs, such as the one with HiH under this pilot. Their department remains available to the groups that were trained under the pilot and the aim is to follow up with them under a different project, as generally the government lacks funding to follow-up on all trained groups. The key informant also suggested additional training on leadership skills to further empower groups and avoid cases of groups being overly dependent on the presence of NGOs.

The above considerations are valid points for future sustainability. It is, however, important to note that some groups and key informants from the communities were hoping for a new project to take over from HiH in supporting them. Some shared that they were not sure about the availability of the government services in case of need. Also, some groups had a vision of growing their poultry rearing business through value-addition, but it was evident that they would need more support to do that.

Investing in value-addition, business diversification and adaptation will be key for farmers to be able to face external shocks, adapt to new market requests and expand their reach to new markets. Skills constraints, which may limit the diversification of businesses and products, and local demand constraints for the same products might limit the growth of informal business which are all competing in the same sector and in a limited geographical area. Thus, while using the poultry value-chain as entry point was effective, such an approach might bring the risk of increasing local competition for the same products and saturating the local market, unless support is provided to diversify local production and enable sustainable linkages with new markets.

4 Links to organisations



4.1 Organisations mentioned by respondents

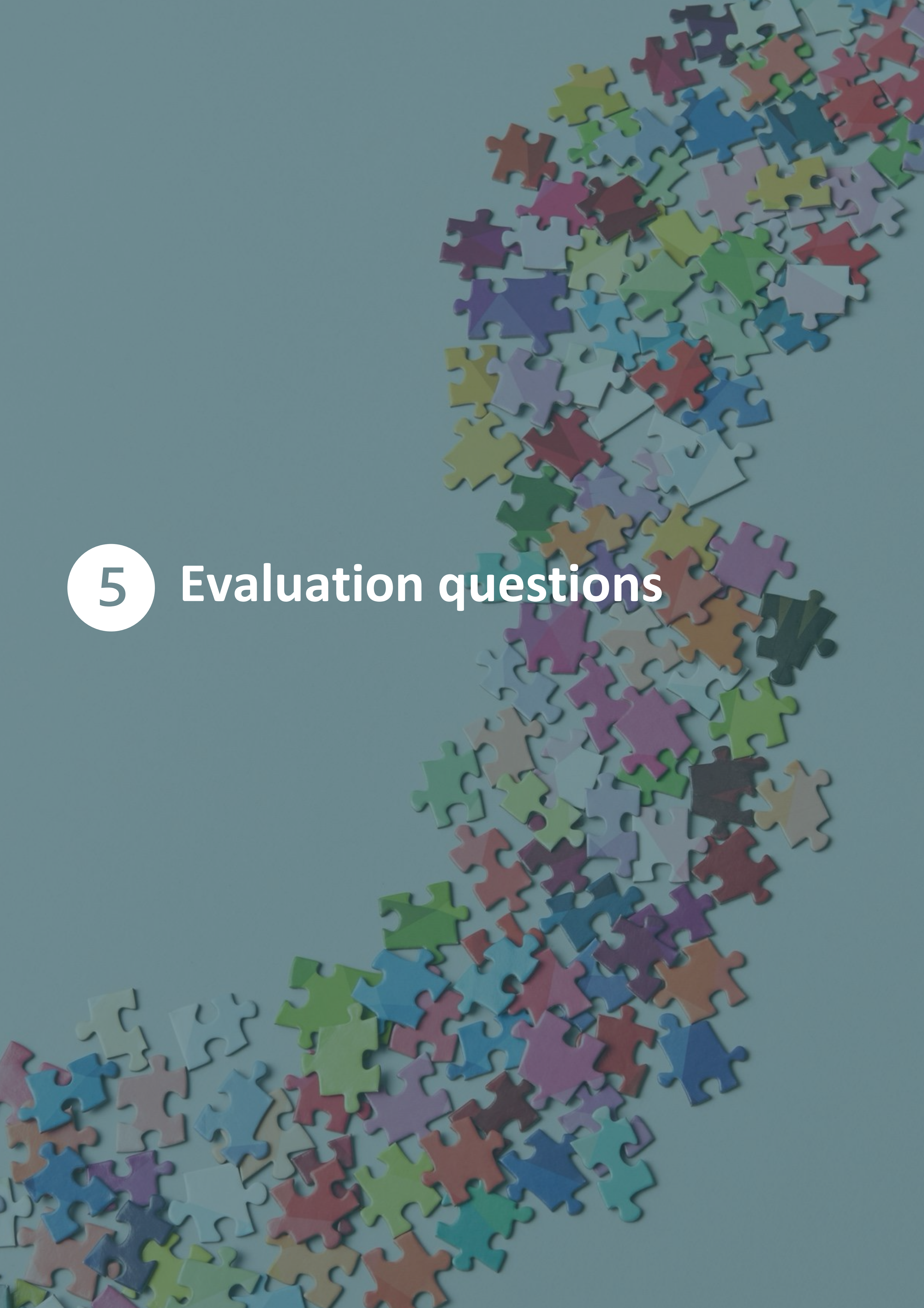
Respondents were asked to list up to five organisations they had engaged with that were the most important to them during the past 2 years (very few respondents named five). Equity was the most frequently mentioned organisation often for improving respondents' financial knowledge and the provision of loans. While Equity was commonly ranked as the second most important organisation, both HiH and CBOs were more frequently placed in the top position. HiH was often mentioned due to their training sessions, particular those related to poultry management, as well as for introducing respondents to Equity. CBOs were ranked highly due to their role in connecting respondents with beneficial organisations and training opportunities, such as those offered by HiH and Equity, as well as for the table banking services available within many groups.

Table 10: Ranked organisations

Showing all organisations mentioned by two or more respondents.

Org	Rank					Total
	1	2	3	4	5	
Equity	5	14	7	5	1	32
Hand in Hand	14	9	2	1	1	27
Self-help groups/ CBOs	6	8	4	2	1	21
Kenya Cereals Enhancement Program (KCEP)	3			1		4
Korea Plant Industries Association (KOPIA)	3					3
World Vision			2	1		3

See appendix 2 for the full ranking list.



5 Evaluation questions

5.1 Impact on beneficiaries' livelihoods

5.1a Has the project contributed to strengthening the livelihoods and economic empowerment of rural smallholder farmers, especially women?

The project has positively contributed to the livelihoods of smallholder farmers in several ways. Evidence from this study shows that, although changes in income were mixed, the majority of respondents experienced an increase in their income from farming activities (64%), despite increases in agricultural inputs which posed challenges to the profitability and sustainability of their income-generating activities.

Causal narratives also show that farmers were able to start new business and expand existing ones thanks to improved access to poultry inputs, due to an increased local availability of poultry inputs, and access to the Equity loan. As a result, starting new businesses and expanding existing ones had a positive effect on profits, ability to save and, for some, ability to meet household needs and increase their resilience. The project also promoted an increased diversification of the sources of income, with respondents investing in poultry rearing and other income-generating activities, ranging from agricultural activities to retail and transport businesses.

The training in poultry was key in shifting the idea of farming poultry for resilience to farming poultry commercially because farmers learnt how to take care of the birds at all stages and this highly reduced the mortality of the birds. Thus, without the training, farmers would have probably not invested in poultry farming as it would have been too risky as a business. When looking at the root drivers for change, the poultry management training was key for improvement in poultry profit and in improving a sense of wellbeing (Table 2). In addition, the Equity loan allowed some farmers to invest in poultry but also diversify their income-generating activities (e.g., starting a shop, a cafè, a DJ business). Indeed, taking a loan from Equity and receiving financial management training from Equity and HiH are root drivers for most of the outcomes of the project, such as farmers' improved ability to invest and non-poultry income, improved wellbeing and resilience (Table 2). Thus, it is arguable that without the Equity loan, farmers would have not invested in poultry rearing at the same scale and they might, as well, have not been able to diversify their income sources, given that their most frequent source of credit were chamas. Loans from chamas are generally of a lower value compared to bank loans and they might have not been enough for some of the investments that farmers reported during data collection.

Just over half of female respondents reported an increase in farming income (54%), compared to almost all male respondents (83%). Although narratives did not capture different patterns in the causal links leading to increased farming income between women and men, male farmers might be involved in more farming value-chains compared to women. Another potential explanation for this difference is that farming for most women would be synonymous with poultry rearing rather than many other activities. Given the increased cost of inputs and the recent change to lower profit margins in the poultry sector, this may have impacted the answer from women interviewed. Where increased farming income was mentioned, it was most often linked to the HiH training and the Equity loan, which in turn led to improved health and longevity of poultry, reduced expenditure on poultry feed, improved crop yields (i.e., beyond the scope of this pilot project, HiH provided training on farming and crops that had a positive impact on crop yields, together with the ability to use the Equity loan to purchase inputs) and market access as well as starting a new farming business or expanding an existing one.

Informants reported that women particularly took advantage of the linkages with Equity Bank to access higher capital amounts for productive investments, and in some cases investments into education. By the time of data collection, 191 women (72%) and 74 men (28%) had an active loan with Equity Bank. This may be unsurprisingly given that the groups linked had a higher female membership, but also that access to capital is generally more difficult for women who are less likely than men to own collateral. In summary, at the time of this study, we found that the project had effected positive changes in the livelihoods and economic empowerment of farmers, including women. What we cannot deduce from this study is whether the poultry income-generating activities started and expanded thanks to this project will be sustainable in the long-term, also considering mitigating factors such as inflation and increased costs of poultry inputs, increased competition within the same value-chain and reduced external support with the end of the pilot project.

5.1b How have farmers changed their poultry production, access to markets, and access and use of financial services?

Over the pilot period, farmers have made extensive changes to their poultry rearing practices and access to formal financial services, and to a smaller extent in their market access for poultry products.

In terms of poultry rearing, the majority of respondents reported some changes in the way in which they rear, treat and feed poultry. This includes improvements in the feeding schedule and quality, the introduction of vaccinations, better housing and hygiene practices. Overall, many farmers have changed their mindset towards poultry rearing as a business, rather than a hobby, including men who started supporting their wives in their business. The extent to which such new practices were adopted were mostly linked to the newly acquired skills and knowledge on poultry rearing, as well as access to capital.

Most respondents accessed formal financial services through the linkages with Equity bank, accessing formal loans for the first time under the group guarantee. By the time of this study, the majority of farmers linked to Equity had accessed their first loan, and only a minority a second and third loan. Of the 18 groups linked, only two disintegrated, and in one loans were recovered using the members' savings. Linkages of groups to Equity bank were initially hindered due to the fact that HiH officers had conflicting targets in terms of providing loans to groups. These targets were subsequently lowered to allow groups to link with Equity, but this led to a delay in the implementation of linkages. As a result, the total number of linked groups is too little and it is too early to say whether accessing formal loans through groups guarantee will be sustainable in the future.

In terms of market access, respondents did not report substantial changes. CBOs, where members can pool together their birds and raise poultry as a group business, were able to use their negotiating power to connect with bigger and more distant markets, also using new tools of digital marketing. This allowed them to connect with markets in Nairobi and local hotels, which were linked during the pilot project. On the other hand, for individual farmers, especially those who do not have high numbers of birds, access to markets did not change substantially as they tended to sell locally and in some cases through brokers. This is often due to the fact that travelling expenses to reach bigger markets are difficult to afford, and bigger buyers would not cover the transport cost to reach the individual farmer with few birds to their place.

5.1c What were the mechanisms behind these changes?

The main positive changes reported by farmers can be attributed to project activities. Training sessions on poultry rearing provided by HiH and MoA were linked by interview respondents to improved poultry care practices and poultry health and longevity, increased profits and savings. Participation in CBOs, financial management training provided by HiH and Equity Bank were linked to improved understanding on how to access a loan and increased financial access. Taking a loan from Equity was also mentioned as a driver for expansion of existing businesses and starting new ones, as well as asset acquisition and investment into education, increased savings and ability to meet household's needs.

Similarly, FGDs and interviews with key informants from targeted communities reported that training activities, including visits to other counties, had improved the knowledge and skills of group members, and as a result their poultry rearing businesses, profits and ability to meet their household's needs.

Meanwhile, inflation and the increase in input costs, specifically chicken feeds, led in some cases to a reduction in their poultry rearing businesses, profits and income. Key informants reported that the increase in input prices had affected many farmers who were keeping a small number of chickens, as this negatively affected their ability to make a profit. For this reason, some farmers reduced the number of birds or stopped keeping poultry. Another key informant, who used to keep hundreds of birds, also shared that after the increase in input prices, the local demand for chicks and chickens decreased and, by the time of the study, several of his chicken houses were empty and used as storage.

In terms of access to finance, some respondents reported that the complicated borrowing process and the inability of other group members to repay their loans had discouraged some members from accessing further loans from Equity. In addition, some farmers also reported concerns regarding their inability to access their Equity savings and mentioned their intention of leaving their group in order to withdraw their savings.

In summary, while the findings show that the project activities triggered several positive mechanisms of change in the targeted communities, external events such as inflation mitigated the positive changes, while the proposed access to finance product might not be effective for groups in the long-term, due to the mandatory saving requirement and inability to withdraw them in time of need.

5.1d What were the unintended consequences of the project, if any?

The features of the group loan product accessed by group members required members to save at least 200Kshs weekly. This was considered as a de-risking approach since it is simultaneously a way of screening applicants and their capacity to save and repay loans, while also providing a guarantee in case of default. Members guarantee for each other and therefore, in cases where loans could not be recovered, Equity could resort to claiming the members' savings. This happened in one group that disintegrated due to members defaulting on their loans.

However, the fact that individual members would not be able to withdraw their individual savings unless they withdraw from the group could be considered as an unintended result, which was mentioned by interview respondents and also during group discussions. This might not be sustainable over time, if we consider that members will keep saving their money without being able to withdraw. It could also lead to negative practices such as selling assets or taking loans from informal moneylenders in cases where households experience an unexpected emergency or shock and cannot fall back on its savings.

Some respondents were part of the groups linked to Equity but did not access loans. In order for groups to be linked and access loans they needed to consist of a minimum number of members. However, when these groups formed, not every member was in a financial position or interested in accessing a loan. At times, they joined those groups to have the future possibility to access a loan. However, in the short-term, those members who did not access loans, found themselves in an uneasy situation since, as they were contributing weekly to guarantee other members' loans through their saving, which they would have not been able to access in case of an emergency. In fact, savings can only be withdrawn when all loans are repaid and, in order for group members to withdraw their savings, they would need to leave the group thus putting at risk the existence of the group and the possibility also for other members to access loans.

The saving feature of the group loan product may limit the sustainability of these groups in the medium to long-term as members will have different needs and financial goals, and may leave the group to withdraw their savings, reducing the number of group members over time.

5.2 Effectiveness and relevance of the pilot project

5.2a How effective was the project design (market-system approach) and delivery in achieving its objectives, particularly around women's access to finance? What aspects of the design and delivery worked well, what didn't and why?

Using a market-system approach and a particular value-chain as an entry point was effective in improving knowledge and skills on poultry rearing and financial management, increasing income-generating activities and profits, farmers' awareness of new marketing strategies and new markets, as well as promoting access to formal finance and confidence in the future.

Overall, the design and delivery of poultry training met the expectations of farmers: the combination of theoretical and practical training, together with exchange visits, worked well in increasing the capacities of groups and CBOs as well as promote peer-to-peer learning in their communities. This also improved the availability of services related to poultry services in the targeted communities. Evidence also shows that the ad-hoc approach promoted by HiH with each CBO worked well: CBOs capacities and interests were assessed, and this allowed HiH to provide specific support and training to each of them. This result can also positively impact the wider community given that CBOs would be able to offer different services, such as chicken feed, chicks, and chickens at different stages.

The linkage of groups with Equity Bank initially presented challenges: some groups introduced to Equity could not be linked as they did not show the capacity to save and develop income-generating activities that was requested by the bank. Additionally, the linking process was slower than anticipated, because some of the more experienced groups already had loans with HiH and to avoid over-indebtedness, they could only be linked to Equity after having fully repaid the HiH loan. Once the typology of groups that could be linked was clarified, and the loan target for HiH officers decreased, more groups that expressed interest were introduced and connected to Equity Bank. This linkage method was effective since HiH already had a very good reputation in the targeted communities and could reach rural places which would not be possible without the partnership with HiH. However, given the delays in the onboarding of groups, the project would have benefited from being further extended to allow more linkage requests from groups to be facilitated under this partnership, while also ensuring the assessment of changes within the linked groups over a longer time-period.

The design was effective in reaching low-income households with existing businesses and sources of income, rather than the very poor, often identified as those without a business or younger households with substantial costs like education costs. However, evidence showed that the pilot approach would work well for very entrepreneurial groups that have worked together for some time, and for individual farmers with prior agricultural experience and an already diverse income portfolio. The key informants interviewed at local level – i.e. paravet, agrovet and lead farmer – had previously been employed as teachers or in other sectors. Discussions with groups and interviews with key informants pointed out that at least half of the community was left behind by this project and would, most probably, not be able to be part of groups with regular contributions. These were mostly described as community members with no business, relying on casual work or without any work and with children in school. The pilot targeted CBOs and groups that had already been filtered – partly by individual predisposition to participate in group entrepreneurial activities and partly because CBOs had already been already created under the umbrella of the bigger project that HiH was delivering in the area. Even with this initial filtering, when the linkages with Equity were promoted, an additional filter was introduced as Equity Bank was specifically looking for groups where members had the capacity to save at least 200Kshs per week, were all involved in some income-generating activities with growing potential and had previous experience in taking loans with HiH.

Overall, the HiH approach to increase local knowledge, capacities and services (e.g., veterinary services) through Lead Farmers and paravets worked well and resulted in positive changes. The linkage of groups to Equity bank, although initially challenging, was effective as it relied on HiH's knowledge and previous experience with groups. Equity reached its lending goal of KSh20 million and never drew on the CG to cover defaults. However, the approach worked well only for a specific category of farmers, generally those with more resources, able to be part of groups and contribute regular savings through their groups, with some agricultural experience and often who had received previous support from other NGOs. The market approach did not reach the youngest, most vulnerable households with young children in school and no regular income, for whom a different type of support is needed.

5.2b How did the involvement of development partners contribute to overcoming the barriers to reaching marginalized farmer groups and enhancing their access and participation in markets?

Evidence shows that the strengths and capacities of each partner complemented each other and working in partnership enabled them to overcome barriers to reach marginalized farmers with their services and products. This was particularly evident with the involvement of Equity Bank and MoA.

Equity Bank was able to reach marginalized groups of farmers who are further away from the areas normally served by the bank, and generally more vulnerable. Equity Bank does provide access to groups through group loan products, but they are usually less vulnerable compared to the groups trained by HiH. The security of the CG allowed the bank to take higher risks than usual. In addition, the introduction by HiH to groups that had already been vetted by HiH allowed the bank to reduce its costs in reaching out to groups, leverage their previous borrowing experience and the good reputation that HiH had in the targeted communities.

The partnership with the MoA was effective in contributing to overcoming the resources constraints that local government can allocate to reaching very distant groups. Making the connection between MoA and groups promoted local linkages of support that can continue after the end of the project and made local farmers and groups more familiar with the types of services that they can request from local extension services.

5.2c How effective was the approach to improve the incentives for market actors to better serve lower income marginalized rural clients?

The main market actors serving the targeted groups that were mentioned during the study were Equity Bank, agrovets and input sellers, as well as local hotels that were introduced to groups.

As previously mentioned, the provision of the CG incentivized Equity Bank to serve the targeted groups. The CG ended in June 2024 and no new group loans had been provided to groups by the time of the study. Key informants from the bank reported that they will continue to serve the linked groups, while it might be more challenging to serve new groups without the CG to fall on in case of default. It will be useful to reassess Equity's presence in the targeted communities in the future, for example in a year, to explore changes in their activities and assess whether the number of linked groups under this pilot project was enough to create a business case for the bank to pursue further expansion in the area, even without a CG.

HiH organized farm days where agrovets could participate and connect to farmers, groups and CBOs. The agrovet shop interviewed during the study mentioned that they took part in some of these farm days and supplied some of the groups under the Tala pilot. Supplying these groups and CBOs did not constitute a significant portion of their market and they were already used to working and supplying groups in rural areas, including the provision of free transport for those big farmers or groups who were used to bulk buying. Although this was not necessarily a new service, the agrovets did mention that the fact that some of these groups were now able to access Equity loans made it easier for them to buy in bulk.

Overall, the number of local sellers increased during the pilot project as a result of the expansion of poultry businesses and the increased demand of products related to poultry rearing such as feeds and medications. For instance, one agrovet mentioned that over the years, with more community members engaged in poultry rearing, her business expanded. Other respondents also mentioned that poultry inputs were now available in multiple shops and not just agrovets.

5.2d How was the relationship between partners managed, how did this change over time, and how did it affect the delivery of the project?

The partnership between FSDK, Equity Bank and HiH was clearly defined from the beginning, with specific roles and activities for each partner. Monthly meetings were held by partners to review progress, identify and overcome challenges together. In addition, local staff from Equity Bank and HiH in Tala used to also meet regularly at the HiH premises in Tala.

Findings from key informants interviewed revealed that the handover process of groups from HiH to Equity Bank experienced initial challenges. HiH staff had loan targets that they had to meet which made it more difficult for them to hand over the groups that had more experience and repayment capacity to Equity Bank. In addition, the first few proposed linkages were not successful as the proposed groups could not meet the onboarding criteria in terms of saving capacity and entrepreneurship. These obstacles were discussed over meetings and overcome by lowering the targets for HiH staff and clarifying the types of groups that could be linked.

These initial challenges delayed the linkage rollout. However, by the end of the project, Equity Bank had reached their lending goal in terms of loan value. It would be interesting to reassess in the future whether the number of groups linked was enough to create further interest and appetite by other groups and nearing communities.

5.2e How relevant and effective was the involvement of local institutions to improve inclusivity, strengthen bargaining power and generate financial and business capabilities?

We use this question to look at how the approach of working through local CBOs has promoted or hindered the inclusivity of farmers, their bargaining power, financial and business capabilities.

The multiple activities delivered through the Tala pilot reached farmers at CBO and group levels. The training provided by HiH on poultry rearing, group dynamics and financial capabilities was delivered at CBO level. This strengthened CBOs' entrepreneurial capacities related to poultry rearing, as well as their financial and managerial skills. Farmers' bargaining power increased through their participation in CBOs as they often negotiated as a group for the sale of their produce as well as to buy inputs, related to poultry and other agricultural value-chains. Delivering training and services through CBOs was an effective approach to reach a high number of community members active in the same value-chain as one of their income generating-activities. This approach therefore seemed to be relevant for farmers organized in local community-based organisations. The linkages to formal finance were instead done through groups which often were smaller entities under the CBO umbrella. This means that not all CBO members were linked to Equity Bank and thus not all received the additional training in financial management provided by the bank.

In summary, both approaches were relevant in reaching and strengthening the capabilities of farmers with common interests and goals. This model seems to be effective in reaching a certain type of farmer, generally with some prior experience in farming, an interest in community income-generating activities, often multiple sources of income and the capacity to start and grow a poultry rearing activity. This capacity includes land, time and financial resources. This approach may not be suitable for the inclusion of the poorest of the poor relying on casual jobs, often without income-generating activities, and the capacity to save on a regular basis.

5.2f How effective was the delivery of training and extension services?

Interview respondents and participants in group discussions reported positive learning from the training and extension services provided by HiH and MoA. The approach was effective in increasing the knowledge and skills of participants as many reported adopting new poultry rearing practices related to feeding, vaccination and hygiene. One lead farmer also reported that she used to adapt her knowledge to the local environment to make the material more relevant to the groups, by providing local examples and challenges from her personal experience and that of other farmers she knew. Nevertheless, there were instances where illiterate farmers found it challenging to follow the training sessions and this might indicate a need to adapt the training, or promote mentorship or peer learning.

5.3 Sustainability and replicability

5.3a Based on observations and lessons gathered during the evaluation, what aspects of the project could be replicated in other contexts, considering the training model, and the approaches to access new markets and finance? In which kind of contexts could the project be replicated and why? For which other value chains could the project be replicated?

Based on the findings, the project has the potential to be replicated, and it had indeed already been replicated for other value-chains, such as dairy, by HiH in partnership with Equity Bank in other counties in Kenya. Reaching farmers with training and finance through CBOs can allow partners to reduce implementation costs while targeting a high number of farmers with knowledge, skills and capital. This has the potential to have spillover effects in the communities through peer learning and word of mouth. The approach can successfully create knowledge and skills, as well as linkages with formal financial services and other market actors, that remain in the targeted communities after the end of a project.

The findings suggest that for a successful implementation of the approach, there needs to be a strong interest in specific value-chains in one geographical area, with potential for growth based on existing demand for specific products, and already some existing capacities in the area. In Tala, farmers were already rearing poultry on a smaller scale, given the higher mortality rate of birds. Rearing poultry is also an inexpensive income-generating activity, compared to other agricultural value-chain. Thus, the pilot was able to reach many interested farmers. It is key that the value-chains used as entry points can easily be accessed by farmers and can quickly produce profits for the farmers to see the benefits of their investments. If the intention is to support farmers through more extensive innovation, such as value addition, it is important that the project considers the challenges in terms of skills, capacities, equipment, regulation and quality standards related to a specific product and design a project that is long enough to assist and guide farmers through such innovations. The Tala project showed that most groups and CBOs sold chicks, chickens, fertilized eggs and feed. Only one CBO attempted to add value to the product through slaughtering and packaging, but more support was needed for them to reach the required standard for sale.

The Tala project used poultry as an entry point and designed a market-system approach around this specific value chain. While this was a good entry point, findings show that once the costs of poultry feeds increased, some farmers had to reduce or stop their poultry rearing and for others their businesses became less profitable. This indicates that, while entering with one value-chain can work in the short-term, in the long-term projects should focus on adding multiple value-chains of interest. This suggests the importance of developing more holistic interventions to promote income diversification and value addition for low-income farmers, perhaps with projects that target multiple value-chains over time. This focus should be included in future projects by promoting training and access to capital for multiple value-chains in the same areas, as well as investment in technological innovation for value addition, to better promote food security and sustainable agricultural methods.

5.3b How has the project evolved over time and what are the prospects of its benefits to be sustained over time?

During focus group discussions and interviews with local informants, groups shared their hopes to be further assisted by another NGO after the end of the Tala project. Overall, findings and observations suggest that groups strongly relied on external support and felt that they would not be able to achieve further growth and innovation without it. In addition to this, there are other risks that may challenge the sustainability of the short-term benefits experienced by many farmers during the pilot project.

First, external shocks such as inflation and the rise in input prices, as well as climate events, might hinder the profitability of farmers' income generating activities and lead some to further reduce or stop their businesses.

Second, skill constraints can limit further innovation along the value-chain and expansion to new markets, while limited demand for similar poultry products in the same rural geographical areas may limit the growth and sustainability over time of poultry rearing activities.

Third, access to capital through group lending may become unsustainable in the medium to long-term as members might be forced to withdraw from their groups to access their savings.

6 Conclusions and recommendations

6.1 Conclusions

The findings show that the project has positively contributed to the livelihoods of smallholder farmers in several ways, although some external changes, such as inflation and the increase in feed prices, have mitigated such effects.

The project was effective in changing farmers' mindset towards poultry rearing as a business. Most respondents were keeping chickens, either for commercial or non-commercial purposes by the time of the study. Sixteen of the 36 respondents reported either starting a new or expanding an existing poultry business, while nine respondents had started or expanded a non-poultry income-generating activity during the project period. These changes were linked to increased profits, improved ability to save, ability to meet household's needs and resilience. Some of these positive changes were hindered by the increase in input costs which made it more difficult for farmers to buy nutritious feed for their poultry, reduced the profitability of poultry rearing and led to either reducing or stopping completely poultry rearing.

The project was effective in improving farmers' knowledge and skills in poultry rearing through training and exchange visits delivered at CBO level and the lead farmer training approach. Over half of respondents mentioned an improved health and longevity of their poultry as a result of changing their management practices. These include better feeding schedules, better hygiene practices and housing, switching to improved poultry breeds and the introduction of a vaccination schedule which highly reduced the bird mortality. As a result, this generally led to increased profits.

Findings also shows that, although changes in income were mixed, the majority of respondents experienced an increase in their income from farming activities (64%), despite the increased prices of agricultural inputs which posed challenges to the profitability and sustainability of their income-generating activities.

When looking at market access, the study found moderate evidence of change. Some CBOs and groups leveraged the training on digital marketing and were able to expand their market reach by using their new skills with social media such as Facebook and WhatsApp groups. Stronger groups also mentioned being able to supply schools, churches and local ceremonies. In some cases, the project had facilitated a linkage with local hotels. However, for the majority of individual farmers the market remained local, and this at times meant resorting to selling poultry to brokers for a smaller price.

Looking now at access to finance and its role in the project, by the time of the study 18 groups were linked to Equity Bank, mostly successfully. Only one group disintegrated, and loans were recovered through the members' savings, and a few accounts were in distressed but ultimately did not default. Women, especially, took the opportunity to borrow through the linkages with Equity Bank, to support their income-generating activities. QuIP respondents linked the financial management training received by HiH and Equity Bank and their membership in a CBO to access to loans. The majority of QuIP female respondents reported an increase in farming income (54%), and a diversified list of productive investments thanks to the increased access to capital facilitated by the pilot project. Overall, taking loans from Equity was linked to starting new businesses and expanding existing ones, both farming and non-farming businesses, asset acquisition and improved ability to invest in children's education.

Almost all respondents (94%) mentioned that their ability to save increased during the pilot project as a result of the financial training received from HiH and Equity, their participation in CBOs and increased profits. Unsurprisingly, half of them linked this to their commercial bank account with Equity, since the group loan product required group members to save KSh200 weekly. This made them eligible to borrow and constituted the group guarantee in case of defaults. Although their increased saving amounts, some farmers reported concerns regarding their inability to access their Equity savings and mentioned their intention of leaving their group in order to withdraw their savings.

Farmers gave mixed responses to the questions related to wellbeing. More links were made to improved wellbeing, such as increased income and poultry profit, and improved ability to meet household needs. Not all respondents discussed their feeling of being resilient. Reduced income and reduced ability to save were linked to reduced resilience, while increased income, profits, ability to save, and improved financial management skills made farmers feel more resilient in the face of unexpected emergencies. Most respondents were confident that their income generating activities would be successful in the future as a result of the training received, their ability to save and take loans from Equity and prior business expansion.

In summary, the findings shows that the project activities triggered several mechanisms that led to positive changes in the activities and livelihoods of the targeted farmers. However, it is hard to say whether such improvements will be sustainable in the face of external shocks such as inflation and in the long-term. Similarly, the findings show that the proposed access to finance product might not be effective for groups in the medium to long-term as the inability to withdraw their savings might actually trigger negative coping mechanisms in case of emergencies, such as reverting to shylocks or selling assets which may in turn reduce households' resilience and food security.

When looking at the effectiveness and relevance of the design, implementation and partnership structure, the findings show that using a market-system approach and a particular value-chain as an entry point was effective in improving knowledge and skills on poultry rearing and financial management, farmers' awareness of new marketing strategies and new markets, as well as promoting access to formal finance through linkages with one commercial bank.

The design was effective in reaching low-income rural households. However, evidence showed that the pilot approach would work well for very entrepreneurial groups that have worked together for some time, and for individual farmers with prior agricultural experience and already a diversity of income sources from agriculture or other sectors. This design would not work to reach the most marginalized members of rural communities, who are generally relying on casual jobs or unemployed.

Evidence shows that the strengths and capacities of each partner complemented each other and working in partnership enabled them to overcome barriers to reach marginalized farmers with their services and products. This was particularly evident with the involvement of Equity Bank and MoA. The provision of the CG incentivized Equity Bank to serve the targeted groups and reach distant rural areas and more vulnerable groups compared to those that are normally served by the bank. The partnership between HiH and MoA was also effective in contributing to extend the outreach of government extension services to the distant rural areas targeted by the Tala pilot and made farmers more aware of how to access government agricultural services.

Overall, the partnership between FSDK, Equity Bank and HiH was clearly defined from the beginning, with specific roles and activities for each partner. Monthly meetings were held by partners to review progress, identify and overcome challenges together. Findings suggest that there were some implementation capacity constraints as there was no staff from HiH specifically assigned to the pilot and a high rate of staff turnover which affected the implementation and the relationships with partners. In addition, the handover process of groups from HiH to Equity Bank experienced some delays due to initial conflicting interests of the two partners. Nevertheless, by the end of the project, Equity Bank had reached their lending goal in terms of loan value linking with 18 groups.

Based on the findings, the project has the potential to be replicated, as the approach of reaching farmers with both financial and non-financial services is effective and relevant to farming rural communities. Meanwhile, findings suggest that in order to improve the potential sustainability of the results, the approach could be strengthen with an increased focus on income diversification and a sustainable use of resources, less strict rules for group members to access their individual savings from their personal bank account, a fee-based approach to the lead farmer training model, and stronger support on value-addition and innovation. In fact, focusing only on one value-chain and a few products may bring increased competition and saturation of local markets. Thus, it is important to expand the focus of external intervention to multiple value-chains, and different nodes along the value-chains to promote income diversification and increase farmers' adaptation to external shocks.

6.2 Recommendations

Programmatic recommendations:

- **Enhance the sustainability of poultry training**: the study shows that the intervention delivered services through two different approaches. On the one hand, Lead Farmers (LF) were assigned 2-3 groups to be trained in poultry rearing and received a compensation from HiH for each training session delivered, and, on the other hand, paravets were trained to establish their own fee-for-service delivery system. As a result, paravets provided services to several groups and individual farmers under a fee and this service will remain unaltered after the end of the project. The LF approach could be made more sustainable if it was developed on a fee-based system. This would incentivise LF to continue training groups, also from outside their community, as they would be compensated for their services. In addition, it may be useful to increase the number of LF trained in order to extend the outreach of the project.
- **Strengthen local leadership and relationships with service providers**: respondents shared that they hoped for continuous support from external NGOs, after the end of this project. The study suggests a sense of dependency that should be addressed to build local leadership and continuous knowledge and skills. Mentorship approaches could be built within the project to support groups develop their capacities in the medium-term, perhaps designing a gradual phase-out during which more responsibilities are shifted onto groups who will be responsible to develop their own work plans and develop relevant relationships with external service providers and trainers. In doing this, it would be important to strengthen the relationship between LF and government officers, to enable them to request further support on technical capacity; after the end of the project.
- **Target multiple value chains simultaneously using a market system approach (risk mitigation)**: although focusing on one value-chain as an entry point was successful to grow productivity, profitability and access to finance, the findings also showed that once the price of chicken feed raised, many low-scale farmers struggled to maintain their poultry businesses profitable with negative effects on their profits and income. This shows that, while using a value-chain as an entry point seems to be effective, it would be important that future project targets multiple value chains, promoting income diversification, a sustainable use of resources and food security;
- **Promote value addition and innovation (risk mitigation)**: the findings showed that while there were opportunities for value-addition (e.g., slaughtering and packaging), reaching the standards required by the market for value-added products is a lengthy and intensive process which would require a longer support period. Future projects should extend their focus on different value-chains nodes, thus allowing for income and product diversification, value-addition and adaptation to market dynamics;
- **Access to outputs markets**: findings suggests that groups and CBOs have more negotiating power and capacity to reach new outputs markets, by selling in bulk and using new digital marketing skills. Future interventions should focus on this and support the creation of group-based approaches to sell produce and reach new markets. In addition, it would be useful to support groups in formalizing contracts that can guarantee longer market relationships;
- **Introduce multiple options for savings withdrawals**: the results of the study suggest that the current compulsory saving requirement for linked groups to ensure their eligibility to borrow can result to be too strict for many members and in the medium and long term undermine the existence of groups and their ability to access capital. The group loan product should include several withdrawal options, so that members can over time withdraw a portion of

their individual savings without undermining their membership and the sustainability of the group;

- **Review and standardize the training material on the loan product**: different groups reported the features of the group loan products in different ways. Future projects might benefit from reviewing the training material and modality to ensure that some features are well understood by all groups. These includes information on fees that were misunderstood, the repayment modalities and the introduction of a grace period;
- **Layered approach to access to finance**: the findings of the study suggests that the approach worked for better-off farmers, while the poorest members of the targeted communities were not eligible for group loans. Discussions with groups and interviews with key informants pointed out that at least half of the community was left behind by this project and would, most probably, not be able to be part of groups with regular contributions. This shows that different segments of the population might need different strategies and approaches to access finance, which may involve cash transfers, matching grants, revolving funds through chamas and support to local financial institutions such as CBOs and cooperatives;
- **Improve data collection for project monitoring and interaction between partners**: the study indicates that there could be room for improving regular collection of monitoring data at group level. This can include information on group dynamics, group businesses, productivity and income, as well as changes at community level, also related to inclusivity and gender norms. Similarly, the challenges experienced in the collaboration between HiH and Equity Bank suggests that improved interaction among partners and increased regular monitoring by FSD Kenya would benefit future project implementations.

Research recommendations

It is hard to assess how sustainable the positive changes triggered by the project activities will be, including the capacity of farmers to turn their new knowledge and skills into profitable income-generating activities, their capacity to access and repay loans. This also include the sustainability of groups and their linkages with Equity Bank. We suggest undertaking another assessment (at a small scale) to revisit some respondents and groups 12 to 18 months after the end of the project – that is after HiH closes its field operation and the CG for Equity is no longer active, to reassess changes at individual and group level, evaluate the effectiveness of the approach to provide rural farmers with knowledge and instruments for their long-term development, the capacity of groups to work independently and innovate.

7 Appendices

Appendix 1: Individual interview guide

Question ids containing ‘$’ are codable data, uploaded in the app as statements.

Question ids containing ‘*’ are closed questions.

If a question id contains no symbols it is used as metadata.

Question id	Question text
#A1	Respondent code
#A2	Location
A3	Name of the interviewer
A4	Date of interview
A5a	Start time of interview (hh:mm)
A5b	End time of interview (hh:mm)
A5c	Duration of interview (in minutes)
A6	Are you the main income earner?
#A7	What is your marital status?
#A8	Can you please tell me your age?
#A9	What is the highest level of formal education that you have completed?
#A10	Do you own a phone?
#A11	If you own a phone or use one (options 1, 2 and 3 in A10), what are the phone features?
#A12	How many children do you have (biological and adopted)?
#A13	How many children are below 5?
#A14	For those 24 years and below, how many are still in school/university?
#A15	What is the household main source of income?
$B1	Please tell me if you have changed the types of business and farming activities that you carry out and the types of animals you raise in your farm (e.g. raising chickens, raising chicks) over the last 2 years.
$B2	Please tell me about any changes to the way you raise your animals (including chickens/chicks) over the last 2 years - the way you keep them, feed them, treat them when sick and sell them.
$*B3	Thinking specifically about your business, how would you say that your knowledge and skills to manage your farm/agricultural business has changed in the last 2 years?
$B4	What is the most important reason for any change?
$C1	Please tell me about the way your household earns income, including from your farm activities and/or other business opportunities. Has this changed in the last 2 years? If so, how has it changed? why?

$*C2	Overall, how has the amount of money that your household earns from your business and farming activities changed in the last 2 years?
$C3	What is the most important reason for any change?
$D1	Has anything changed in the way you manage the finances of your farm business?
$E1	Please tell me whether there have been any changes in the way decisions are made in the household over the last 2 years, between you and other members of the household?
$*F1	If we consider wellbeing as including your emotional, mental and spiritual health, overall, how do you think your wellbeing has changed during the past two years?
$F2	What is the most important reason for your answer to the previous question?
$*F3	If we consider wellbeing as including your emotional, mental and spiritual health, overall, how do you think the wellbeing of your household has changed during the past three years?
$F4	What is the most important reason for your answer to the previous question?
$*F5	Overall, how confident do you feel about the future of your business and farming activities, in the next five years do you think the income from your farm business will …
$F6	Please, explain why you feel so. Has anything happened in the last two years that changed the way you feel about the future of your farm business?
$*F7	Thinking about your longer-term financial goals, such as, starting a business, investing in farming, buying or paying off land or a home, saving up for education, putting money away for old-age, how confident are you that you are currently doing what is needed to meet your longer term goals?
$F8	Please, explain why you feel so. Has anything happened in the last two years that changed the way you feel about the future of your farm business?
$G1	Please list the five most important organisations inside or outside of your village that have affected your life in the last 3 years.
$H1	Questions asked by respondent.
$H2	Other observations.

Appendix 2: Full organisation ranking

Organisation	CBO/Self-help group	Rank					Total
		1	2	3	4	5	
Equity		5	14	7	5	1	32
Hand In Hand		14	9	2	1	1	27
Mwangaza CBO	Yes	2	1	2	1	0	6
Mapatano Group	Yes	1	2	0	0	1	4
Kenya Cereals Enhancement Program (KCEP)		3	0	0	1	0	4
Korea Plant Industries Association (KOPIA)		3	0	0	0	0	3
World Vision		0	0	2	1	0	3
SACDEP		2	0	0	0	0	2
Disabled Integrated Program (DIAP)		0	1	0	1	0	2
Kenya Agricultural and Livestock Research Organisation		1	1	0	0	0	2
Kenya Commercial Bank (KCB)		1	0	1	0	0	2
International Council for Research in Agro Forestry Kenya (ICRAF)				1	1		2
Syombuni Self Help Group	Yes	1	0	0	0	0	1
Kenya Women Microfinance Bank (KWFT)		1	0	0	0	0	1
Sunshine Self Help Group	Yes	1	0	0	0	0	1
Disabled Abled Self-Help Group	Yes	1	0	0	0	0	1
Denmark's Overseas Development Agency		1	0	0	0	0	1
Mitamboni CBO	Yes	0	1	0	0	0	1
AC- Church group	Yes		1				1
Solidaridad			1				1
Mwanzo Mpya Mtoni Self Help Group	Yes		1	0	0	0	1
Kathome Dairy Farmers	Yes		1				1
Universal Traders Sacco (UTS)				1			1
Government of Kenya				1			1
Catholic church				1			1
Swedish group				1			1
TAIWAKA Group	Yes			1			1
Mwamba Wa Kithine Self Help Group	Yes			1			1
High Rise Agrovet				1			1
Coop bank					1		1
Bayer East Africa					1		1
County Government of Machakos						1	1
Ngulini Sub-County Agricultural Extension Officers						1	1

Appendix 3: Source/Respondent Summary

Respondent Key

First letter/s- Group

D- Disabled and Abled SHG

KA- Kathome dairy farmers

MA- Mapatano syumbuni

MU- Muamba Wa Kithini Na Utumoni

MW- Mwangaza Poultry CBO

NM- Ngulini Multipurpose

W- Wish SHG

Last letter- Gender

M- Male

F- Female

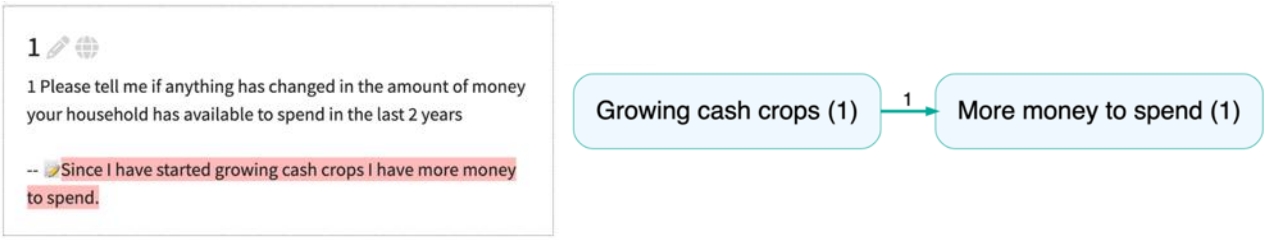
Source id	Gender	Age	Group	CBO	Location
MWF1	Female	> 55	Mwangaza Poultry CBO	Mwangaza Poultry CBO	Kivandini
MWF2	Female	36-45	Mwangaza Poultry CBO	Mwangaza Poultry CBO	Kivandini
MAF3	Female	> 55	Mapatano syumbuni	Syokilelu	Kyeleni
NM4	Male	36-45	Ngulini Multipurpose	Ngulini	Ngulini
MAF5	Female	26-35	Mapatano syumbuni	Syokilelu	Kyeleni
MAF6	Female	36-45	Mapatano syumbuni	Syokilelu	Kyeleni
MAF7	Female	> 55	Mapatano syumbuni	Syokilelu	Kyeleni
MAF8	Female	45-55	Mapatano syumbuni	Syokilelu	Kyeleni
WM9	Male	> 55	Wish SHG	Kitwii	Gikomba
WM10	Male	45-55	Wish SHG	Kitwii	Gikomba
WM11	Male	45-55	Wish SHG	Kitwii	Gikomba
WM12	Male	26-35	Wish SHG	Kitwii	Gikomba
NM13	Male	> 55	Ngulini Multipurpose	Ngulini	Ngulini
MAF14	Female	36-45	Mapatano syumbuni	Syokilelu	Kyeleni
MWF15	Female	45-55	Mwangaza Poultry CBO	Mwangaza Poultry CBO	Kivandini
MWF16	Female	> 55	Mwangaza Poultry CBO	Mwangaza Poultry CBO	Kivandini
MUF17	Female	> 55	Muamba wa kithini na utumoni	Kitwii	Kitwii
NM18	Male	45-55	Ngulini Multipurpose	Ngulini	Ngulini

MUF19	Female	45-55	Muamba wa kithini na utumoni	Kitwii	Kitwii
MUF20	Female	45-55	Muamba wa kithini na utumoni	Kitwii	Kitwii
DM21	Male	45-55	Disabled and abled SHG	Kwa Kathule	Kyeveluki
KAF22	Female	45-55	Kathome dairy farmers	Kwa Kathule	Kwa kathule
KAF23	Female	36-45	Kathome dairy farmers	Kwa Kathule	Kwa kathule
KAF24	Female	26-35	Kathome dairy farmers	Kwa Kathule	Kwa kathule
WM25	Male	45-55	Wish SHG	Kitwii	Gikomba
MWF26	Female	> 55	Mwangaza Poultry CBO	Mwangaza Poultry CBO	Kivandini
MWF27	Female	26-35	Mwangaza Poultry CBO	Mwangaza Poultry CBO	Kivandini
MUF28	Female	36-45	Muamba wa kithini na utumoni	Kitwii	Kitwii
MUF29	Female	> 55	Muamba wa kithini na utumoni	Kitwii	Kitwii
MUF30	Female	36-45	Muamba wa kithini na utumoni	Kitwii	Kitwii
KAF31	Female	36-45	Kathome dairy farmers	Kwa Kathule	Kwa kathule
KAF32	Female	36-45	Kathome dairy farmers	Kwa Kathule	Kwa kathule
KAF33	Female	26-35	Kathome dairy farmers	Kwa Kathule	Kwa kathule
DM34	Male	45-55	Disabled and abled SHG	Kwa Kathule	Kyeveluki
DM35	Male	26-35	Disabled and abled SHG	Kwa Kathule	Kyeveluki
NM36	Male	> 55	Ngulini Multipurpose	Ngulini	Ngulini

Appendix 4: QuIP Data Analysis

A QuIP analyst trained in **qualitative data analysis** (QDA) reviewed and coded the interviews which had been collected by local researchers. Using the **Causal Map App**, an online data analysis tool, **influence** (driver) and **consequence** (outcome) factor labels were allocated to respondents' statements to create visual depictions of their causal claims. These factors were unique to this project and were developed iteratively by the analyst based on what the respondents have said. This approach enables the analyst to look for patterns and trends across the dataset, and to understand which stories of change are common across the sample, and which are specific to certain individuals, or to a particular group of respondents.

Screenshot from Casual Map app



Statements relating to change were coded in this way; the majority of statements about the status quo were not coded. However, some respondents reported on agricultural services without citing any outcomes and as this information was of interest to SHA it was coded using plain coding – akin to traditional 'tagging' in QDA. This allows the analyst to note the presence of something which is not casual and highlight relevant quotes and findings in the report. Plain coding is not included in the maps as they are focused on causal stories of change.

Filters have been applied by the analyst to create a particular view of the data, such as searching for specific causal factors, selecting a certain link frequency, and focusing on a particular respondent type. Map captions reference important filters which have been applied.

Counts

QuIP data is not statistically representative of the wider population. The findings of this study cannot be extrapolated out across wider project target areas, nor is that the intention. The aim of carrying out this QuIP was to conduct a 'deep dive' assessment with a purposively selected group of people in the project target area to understand whether, and if so, how different aspects or 'domains' of their lives have changed in recent years. Counts have been used to highlight trends in the data, but these should not be interpreted as being representative of a particular population other than those involved in the study, rather this offers an opportunity to learn from detailed perceptions of change within this group. This report uses quotes to help communicate more detail and give examples of the types of stories under discussion, but the quotes are not used to represent a 'majority' or 'minority' view.

Within QuIP analysis there are two different types of 'count':

1. **Respondent/Source Count:** The **number of respondents** who mention a factor. The maximum respondent count will always be equal to the number of people interviewed i.e. 36 respondents in this study.
2. **Frequency Count:** The total **number of times** a factor is mentioned overall across the dataset.

For example, if *one respondent* mentions the agricultural inputs to increased yield *five times* in the interview, the frequency count would be 5, whereas the source count would be 1.

The causal maps presented in this report display the **source count**, so each link label (the number above an arrow) represents the number of respondents who mentioned a link between the two (influence and consequence) factors.

Hierarchical coding

Hierarchical coding allows analysts to add extra levels of detail to more general factor labels and has been used throughout the data analysis of this study. The different levels of a factor are separated by a semicolon, e.g., 'Improved diet; Variety'. One can read the semicolon as 'in particular' or 'specifically' - so in this example, the households diet has improved, specifically in variety.

These levels can then be '**zoomed**' in and out to explore and present different views of the data. Maps might be zoomed in to show only the first level of a factor (with all the sub-levels nested within it) or zoomed out to present all the levels.

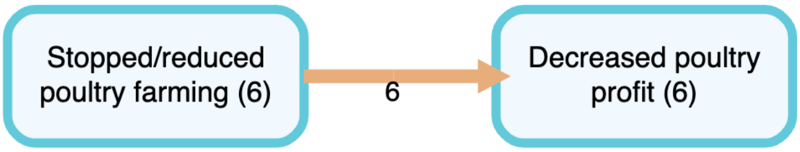
All of the maps in this report use Zoom level one to improve map readability.

Sentiment

The links are coloured by sentiment:

- Green links represent a positive change
- Orange links represents a negative change

In the example below, stopping or reducing poultry farming has decreased poultrys both of which are negative.



Quotations

As respondent voice is central to QuIP methodology and philosophy, **quotations** from the narrative accounts are presented throughout this report. Where quotes are used, this is to help communicate more detail and give examples of the types of stories under discussion, not to represent a 'majority' or 'minority' view.

All the respondent data is anonymised by allocating a code to each respondent. The **respondent source codes** presented in the report allow the reader to trace back to the original qualitative data (available in the accompanying **Causal Map file**).

The QuIP questionnaires were carried out in the local language and then summarised and translated into English by the same researchers. All quotations used in this report reflect the wording and English language used by the data collection team. Translations or clarifications are provided where necessary, but where possible the English has been deliberately left as written by the field researchers in order to maintain authenticity. Original notes and recordings are held by the research team.

Appendix 5: Glossary of terms

QuIP studies employ the following terms as described below:

Attribution: Evidence, most often in the form of narrative testimony that an action (X) or change in some variable X, caused an outcome (Y), including an increase or decrease in an outcome indicator such as the respondent's income or wellbeing. The precise logical status of such causal propositions is generally left unstated, and our default interpretation is that when respondents claim action X influenced outcome Y, they mean that if X had not happened then Y would not have happened either. In other words, we assume that they are implying action (X) is a necessary condition for change in an outcome (Y) in the presence of a package of other drivers of change (Z). The causal package (X, Z) is sufficient to cause the change in Y, but need not be necessary, because there may be other causal packages that are also sufficient to do so. Some authors define attribution more narrowly as a quantifiable effect of X on Y, but here the term is used more generally and in a way that is synonymous with contribution.[1]

In general, in QuIP we prefer to talk about "frequently mentioned influences" and "frequently mentioned consequences" to ensure that we remain clear about the differentiation between reporting 'claims of causation' and actually claiming causation ourselves. There is rarely enough evidence in the narrative testimonies to make any definitive generalised claims about causation; to do so would be spurious. However, reporting the frequency of *claims* of causation is of great interest to any commissioner.

Blindfolding: The process of deliberately restricting what interviewers and/or interviewees know about an activity or actor in order to reduce the potential bias in favour of emphasising the importance of this activity or actor relative to other drivers of change.

Causal chain: A series of connected causal claims, for example in a narrative where X leads to Y_1 leading to Y_2 leading to Y_3.

Causal factors: A general term for influence and consequence factors. Causal factors are the building blocks of causal chains.

Count: the number of times a factor is mentioned in interviews and focus group discussions

Source Count: The number of respondents who mention a given factor across the whole interview. By definition, the maximum respondent count for a given factor in a QuIP with 24 respondents is 24.

Frequency Count: The number of times a factor is mentioned.

Credibility: How believable a particular finding or conclusion is to a particular person or audience. It

Domain: A field or category of outcomes, agreed in advance with the commissioner and used to structure interviews and focus group discussions. Most studies address a set or group of domains that are consistent with a *theory of change*. For example, they may refer to different aspects of the well-being of individual intended beneficiaries.

[1] The QuIP has a strong affinity to Contribution Analysis as described by Mayne (Mayne J. 2012. Contribution analysis: coming of age? *Evaluation* 18(3):270-280.).

Driver of change: An action or state (X or Z) behind outcomes (Y). These are generally self- reported by respondents, in answer to questions like *'why did that happen?' or 'what was the reason for that?'* This term is synonymous with **Influence Factor.**

Influence factor: A label used to denote Drivers of change.

Intended beneficiary: Those people that a specified organisation is aiming to benefit, by achieving *outcomes* specified in its *theory of change*. In the case of capacity building projects, the intended beneficiaries may be organisations or associations of people.

Impact: Evidence that a specified project *credibly caused* a specified set of outcomes. In some cases, the term impact may refer specifically to final *outcomes*. X *credibly causes* Y in a particular context if (a) there is strong evidence that X and Y happened, (b) several stakeholders independently assert that X was a cause of Y, with minimal prompting, (c) there is no more credible counter-explanation for why they might have said this, (d) their account of how X caused Y is consistent with a plausible *theory of change*.

Outcomes: Changes reported by respondents, often in the answer to the question *'during the last [specified time period] has anything changed in relation to [domain]?'* This term is synonymous with **Consequence factor.**

Project or Programme: A specified set of activities, intervention, investments over a given period of time aimed at achieving a specified set of intended outcomes for a specified group of intended beneficiaries. This is the object of a specified QuIP study, and it is the responsibility of the commissioner to define it, as well as the theory of change behind it, as precisely as possible. Others may refer to the project as a 'treatment' but in QuIP studies this term is generally avoided.

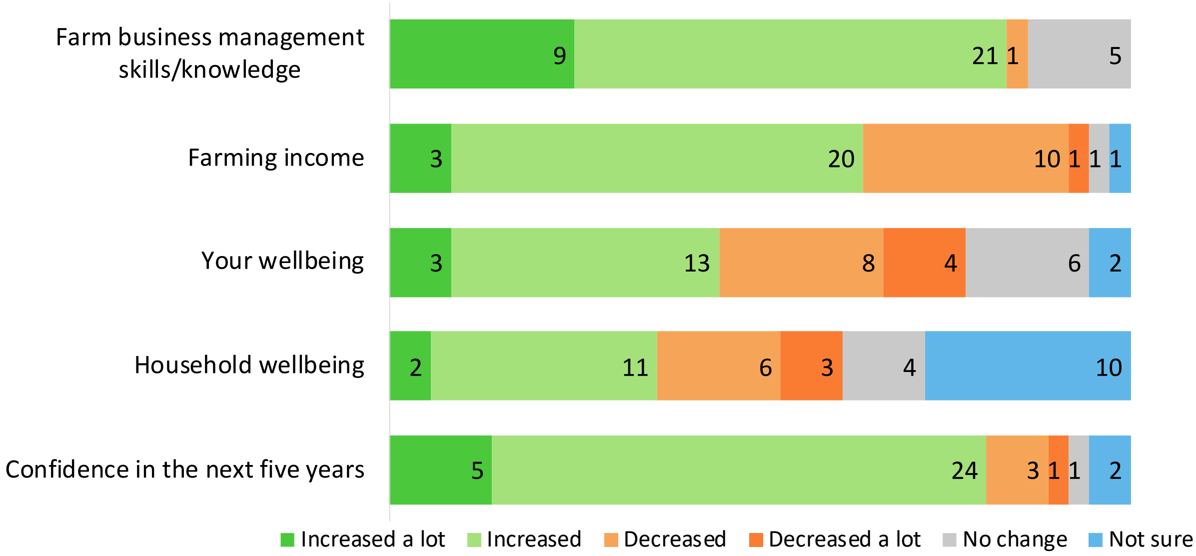
Respondents: These are the main source of causal claims, linking drivers of change (including but not limited to project activities) to outcomes, both intended and unintended. Respondents are usually a sample of intended beneficiaries, and data is collected from them through a mix of semi-structured interviews and focus group discussions.

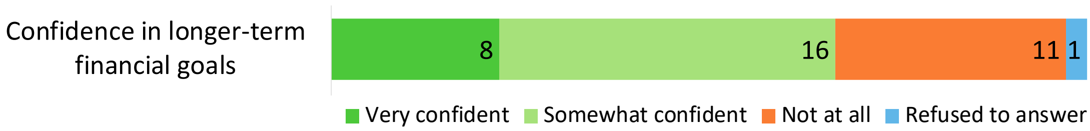
Story of change: A selected causal chain or series of chains which exemplifies one of the key findings which came out of the interviews. This may or may not be part of the hypothesis or theory of change which the research seeks to investigate but will usually include at least one set of links between influence factors and consequence factors. A limited number of 'stories' are selected to highlight the main findings from the research.

Theory of change: The causal processes by which the commissioner of QuIP study expects a specified project to achieve intended outcomes and impact. Not all causal drivers originate with the project. Theories of change also identify incidental drivers of change and may also assess the risks associated with their occurrence or non-occurrence.

Appendix 6: Closed Question Summary

Appendix 6a: Summary of closed questions





There were some differences between the responses the different gender groups gave. Men were likely to report an increase in farming income and more likely to answer 'not sure' or 'no change' in the wellbeing questions. Men were also more likely to report feeling confident about the future.

Figure 6b: Summary of closed questions by gender

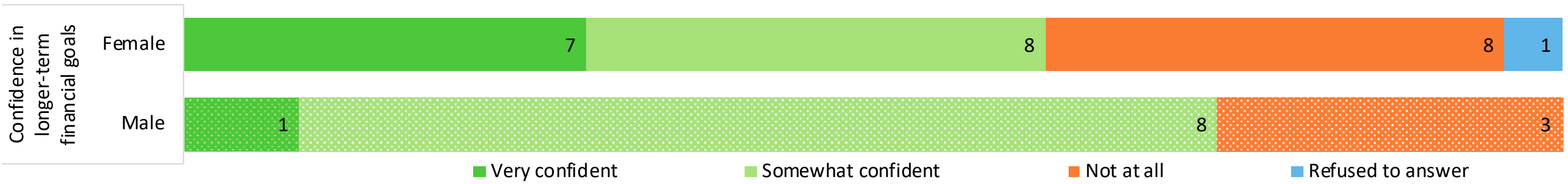
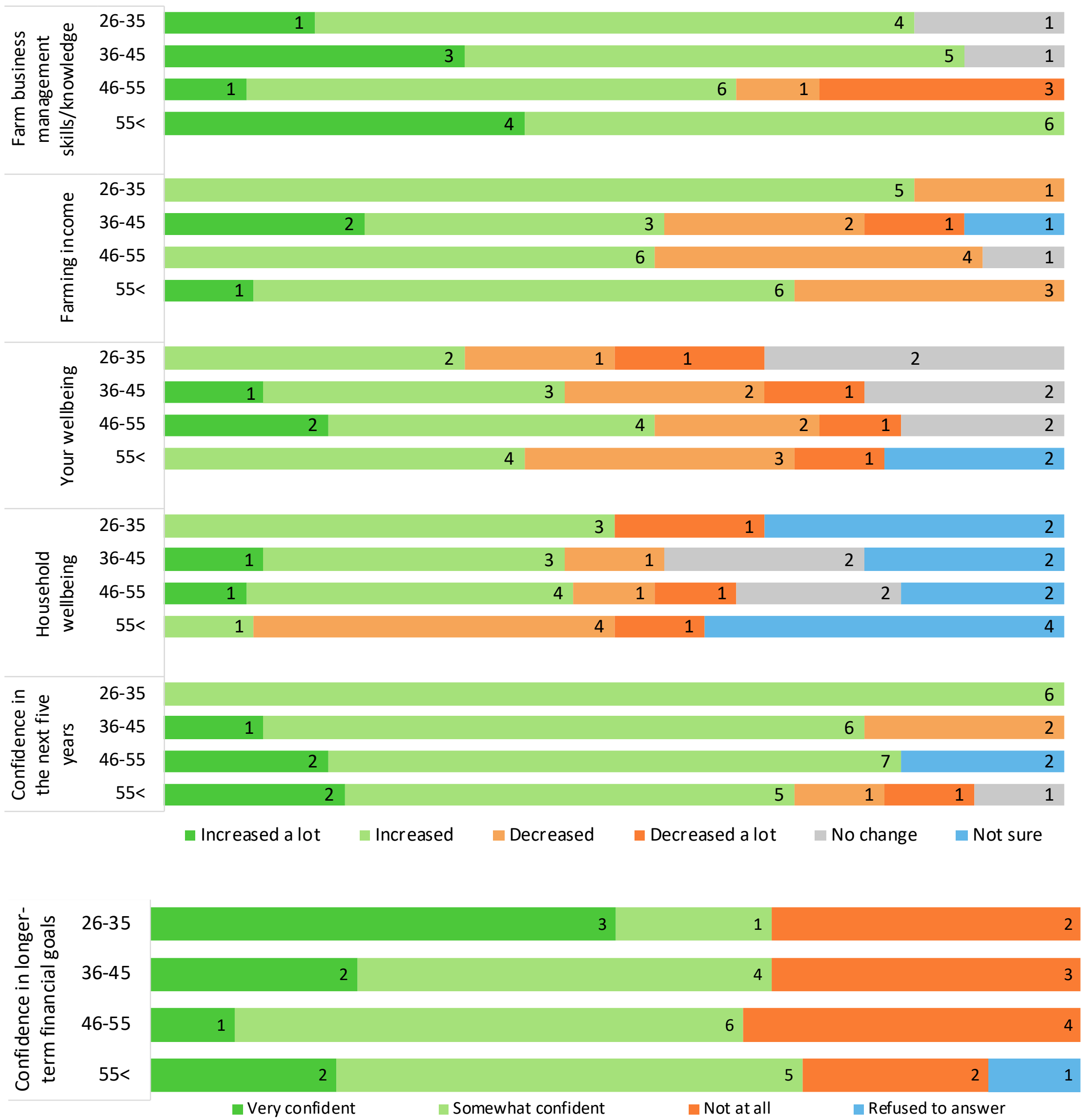


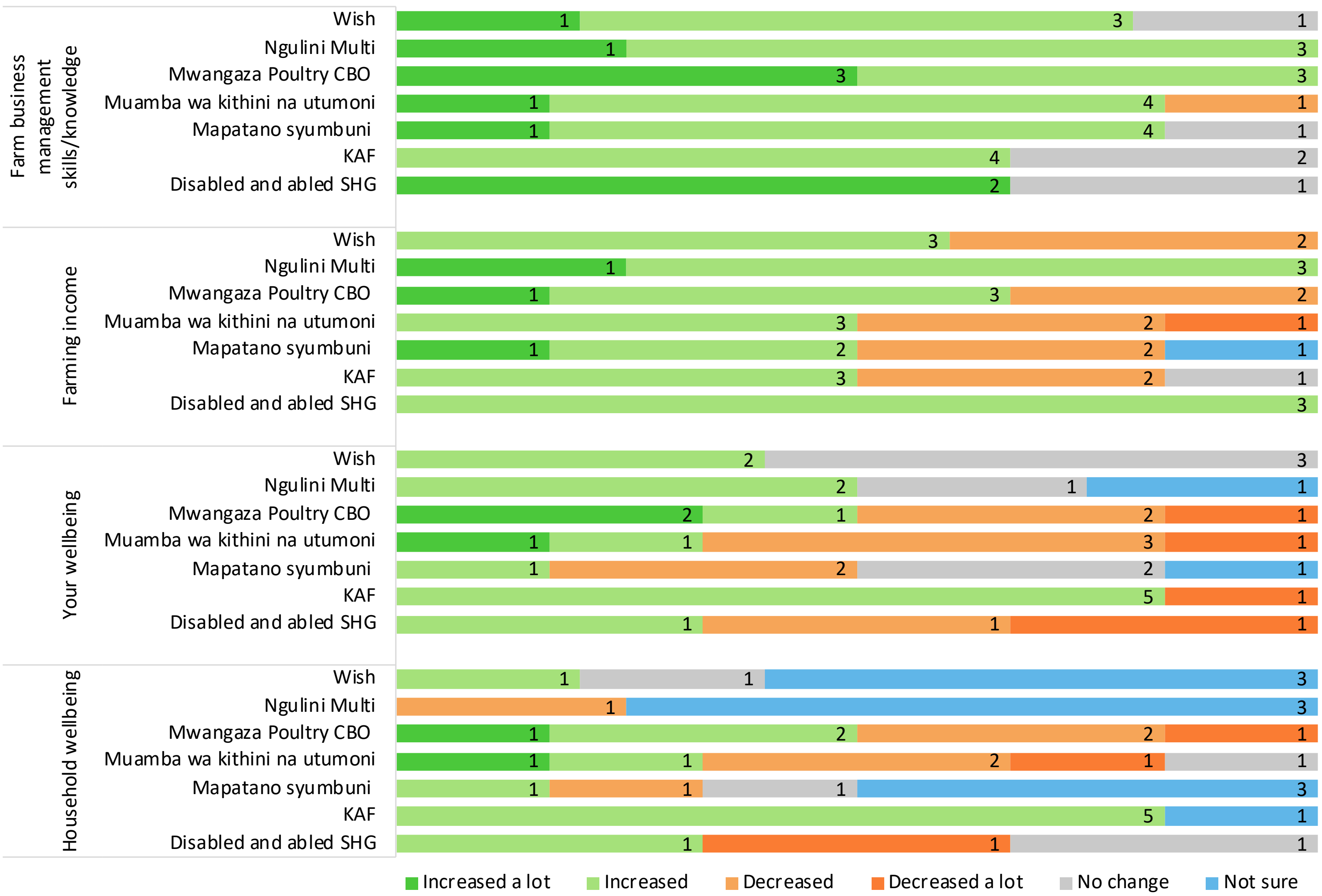
Figure 6c: Summary of closed questions by age



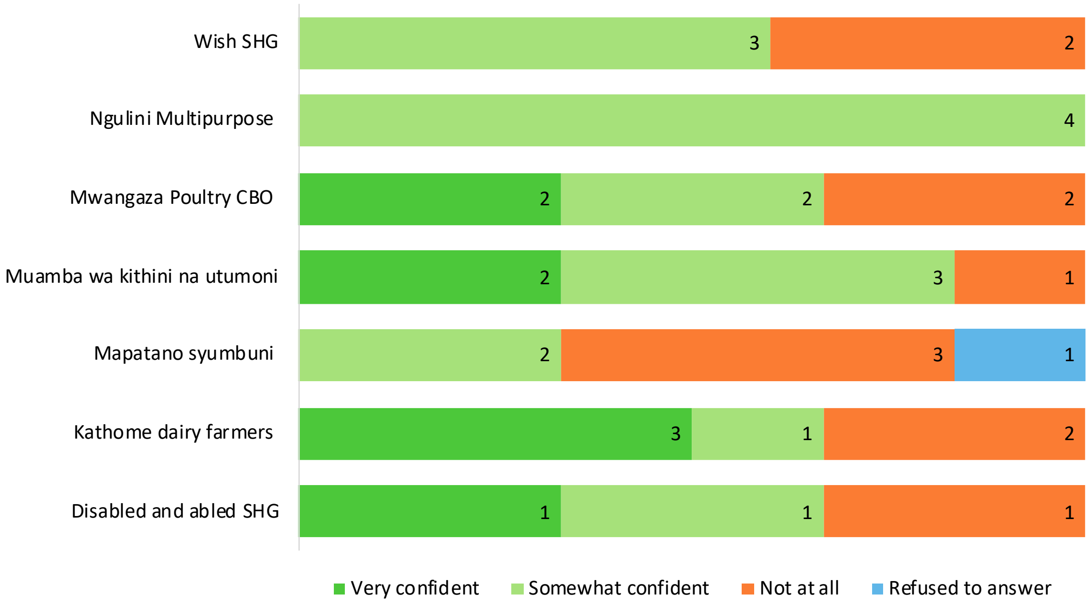
Those aged 46-55 years were most likely to give a negative response when asked about changes in their farm business management skills and knowledge.

Respondents aged over 55 were most likely to say their household wellbeing had decreased over the last two years.

Appendix 6d: Chart of closed question summary by group



Confidence in longer-term financial goals



Appendix 6e: Table of closed question summary by group

The below table shows the percentage of positive/negative responses to the closed questions by group, excluding confidence in longer term financial goals.

	Disabled and abled SHG	Kathome dairy farmers	Mapatano syumbuni	Muamba wa kithini na utumoni	Mwangaza Poultry CBO	Ngulini Multipurpose	Wish SHG
Increased a lot	13%	0%	7%	17%	27%	15%	8%
Increased	40%	73%	43%	37%	40%	55%	48%
Decreased	7%	10%	17%	30%	23%	5%	8%
Decreased a lot	20%	3%	0%	13%	7%	0%	0%
No change	20%	10%	13%	3%	3%	5%	20%
Not sure	0%	3%	20%	0%	0%	20%	16%

Appendix 6f: Table of closed question responses by source

Key	
++	Increased a lot
+	Increased
o	No change
-	Decreased
--	Decreased a lot
/	Not sure

Source id	Farm business management skills/knowledge	Farming income	Your wellbeing	Household wellbeing	Confidence in the next five years	Confidence in longer-term financial goals
MWF1	++	-	-	-	-	Not at all
MWF2	++	++	++	++	++	Very
MAF3	+	+	-	-	+	Somewhat
NM4	+	+	o	/	+	Somewhat
MAF5	+	-	o	/	+	Not at all
MAF6	++	++	+	+	+	Somewhat
MAF7	+	+	/	/	+	N/A
MAF8	o	-	-	/	/	Not at all
WM9	++	+	+	/	+	Somewhat
WM10	+	-	+	+	++	Somewhat
WM11	+	+	o	/	+	Somewhat
WM12	+	+	o	/	+	Not at all
NM13	+	+	/	/	+	Somewhat
MAF14	+	/	o	o	+	Not at all
MWF15	+	+	++	+	+	Somewhat

MWF16	+	+	+	-	o	Not at all
MUF17	+	+	+	+	++	Very
NM18	+	+	+	-	+	Somewhat
MUF19	-	-	--	--	+	Not at all
MUF20	+	+	++	++	++	Very
DM21	o	+	+	+	+	Not at all
KAF22	+	o	+	+	+	Somewhat
KAF23	+	+	+	+	+	Not at all
KAF24	+	+	+	+	+	Very
WM25	o	-	o	o	/	Not at all
MWF26	++	-	--	--	+	Very
MWF27	+	+	-	+	+	Somewhat
MUF28	+	+	-	o	-	Somewhat
MUF29	+	-	-	-	--	Somewhat
MUF30	++	--	-	-	+	Somewhat
KAF31	+	-	+	+	+	Very
KAF32	o	-	--	/	-	Not at all
KAF33	o	+	+	+	+	Very
DM34	++	+	-	o	+	Somewhat
DM35	++	+	--	--	+	Very
NM36	++	++	+	/	++	Somewhat

Appendix 7: Research methodology

Overview of the research methodology

This research study used multiple qualitative data collection tools including the Qualitative Impact Protocol (QuIP). The QuIP method involves gathering information directly from intended beneficiaries, based on their perceptions of what has changed in their lives over a set period of time, in this case the last two years, and across a series of domains related to the project's outcomes. In addition to individual QuIP interviews, the study used Focus Group Discussions (FGDs) to gather information about change at community level and also from farmers who were not directly targeted by the pilot project, and Key Informant Interviews (KIIs) to gather information about the project implementation from different stakeholders, both at central level (e.g., FSD Kenya and HiH) and at community level (e.g., agrovet, Lead Farmer).

The evaluation matrix below presents the main research questions and the relevance of each data collection tool in answering these questions. These questions have been answered in Chapter 2.

Research questions	Verification method
1. Impact on beneficiaries' livelihoods: **1a.** Has the project contributed to strengthening the livelihoods and economic empowerment of rural smallholder farmers, especially women? **1b.** How have farmers changed their poultry production, access to markets, and access and use of financial services? **1c.** What were the mechanisms behind these changes? **1d.** What were the unintended consequences of the project, if any?	QuIP interviews: 1a, 1b, 1c, 1d
2. Effectiveness and relevance of the pilot project: **2a.** How effective was the project design (market-system approach) and delivery in achieving its objectives, particularly around women's access to finance? What aspects of the design and delivery worked well, what didn't and why? **2b.** How did the involvement of development partners contribute to overcoming the barriers to reaching marginalized farmer groups and enhancing their access and participation in markets? **2c.** How effective was the approach to improve the incentives for market actors to better serve lower income marginalized rural clients? **2d.** How was the relationship between partners managed, how did this change over time, and how did it affect the delivery of the project? **2e.** How relevant and effective was the involvement of local institutions to improve inclusivity, strengthen bargaining power and generate financial and business capabilities? **2f.** How effective was the delivery of training and extension	FGDs: 2a, 2f, 2g KIIs: 2a, 2b, 2c, 2d, 2e, 2g

services? **2g.** What role did finance play in the achievement of the project results? How effective was the approach in enhancing access and use of finance by smallholder farmers, especially women?	
3. Sustainability and replicability: **3a.** Based on observations and lessons gathered during the evaluation, what aspects of the project could be replicated in other contexts, considering the training model, and the approaches to access new markets and finance? In which kind of contexts could the project be replicated and why? For which other value chains could the project be replicated? **3b.** How has the project evolved over time and what are the prospects of its benefits to be sustained over time?	

The rest of this chapter will be used to answer the evaluation questions in the matrix, considering the findings from all the data collection tools.

Key Informant Interviews

Ten key informant interviews (KIIs) were carried out to assess the design and implementation of the pilot project at different levels. These included interviews with informants at central/management level who were involved in the design of the pilot project, such as FSD Kenya, HiH EA and EBL, and with informants who were involved in the delivery of the project or benefitted from its implementation at community level, such as Lead Farmers and paravets. The interviews explored how the project worked or did not work at managerial and local level, including its successes, and challenges. KIIs also gathered lessons learned and explored the sustainability and replicability of the piloted business models from the perspective of different stakeholders, as well as their roles and responsibilities. Overall, KIIs aimed to investigate the role of the different market actors in addressing the market bottlenecks that were identified and the feasibility of the piloted market approach.

The KIIs were carried out by the Kenyan Lead Researcher and the Lead Evaluator. The notes from the KIIs were analysed according to themes/domains, triangulated with other data sources (e.g. QuIP interviews, FGDs and project documentation) and incorporated in this final report.

KIIs were conducted with the following stakeholders:

- Senior Economic Inclusion Advisor at FSD Kenya
- Technical Advisor at Hand in Hand East Africa
- Tala Branch Manager for Hand in Hand East Africa
- Team Lead Pamoja Banking and Training and Partnership Manager at Equity Bank in Nairobi
- Branch Head of Credit for Equity Bank in Tala
- Lead farmer in Kitwii
- Agrovet and paravet in Kitwii
- Savannah input supplier in Tala
- CBO management for Mwangaza Poultry CBO
- Livestock Officer Assistant for Matungulu Sub-County in Machakos County

QuIP Individual Interviews

Primary data was gathered using exploratory QuIP interviews to collect in-depth information on farmers' perceptions of the key drivers of change. Thirty-six interviews with rural smallholder farmers were carried out, 24 with women and 12 with men. The interviews were designed to capture change stories in the domains of people's lives which were expected to be affected by the activities and services provided under the pilot project, such as training, access to para-vets and markets, and access to financing. The interviews included a combination of open-ended and closed questions, aimed to elicit information about change in different outcome domains, and why respondents think that change has happened. In particular, the interviews were designed to look for evidence of what has contributed to any changes in their productivity, approaches to production, access to market and access to and use of finance.

The interviews were conducted in the local language by a team of three local researchers. Double blindfolding was adopted during data collection. This means that the interviews did not reference the project at all, taking an exploratory, open-ended approach to capturing information about all possible drivers of change in the areas where the programme expects to have impact. This entailed that both research assistants and respondents were not aware of the programme being evaluated and of the organisation that commissioned the study. However, in doing this, the local researchers were informed to explore more in-depth drivers of change related to poultry rearing, in such cases where respondents mentioned changes in their poultry rearing activities, in order to keep the interviews between one and one and a half hour. Given that the interviews did not refer to the project or the study commissioner, if farmers provided information about the programme, this is considered unprompted and helps to build a picture of contribution whilst mitigating for pro-project and confirmation bias.

The semi-structured QuIP questionnaire asked for changes in the last two years about the following outcome domains:

A. Farming production, productivity and profitability, including changes in the way chickens are raised, access to inputs and veterinary services, the business productivity, as well as farming knowledge and skills.

B. Income sources and access to markets, including changes in the ways in which respondents and their households have earned an income, marketing strategies, and access to new markets, as well as changes in business assets and payments methods related to the business.

C. Financial knowledge and practices, including savings options and amounts, access to credit for personal and business use and how/why these have changed, the use of other financial services and financial resilience.

D. Decision-making and household relationships including who makes decisions over farming activities, money and assets, and who manages household finances.

F. Overall wellbeing and resilience to shocks, including how this has changed and why.

Given that most beneficiaries accessed their first loan from Equity Bank in 2022 and 2023, we used a recall period of two years. This means that the individual interviews explored changes that have happened in the lives and businesses of respondents over the two years prior data collection, which happened in September 2024. The data collectors were trained on the QuIP methodology and familiarised themselves with the interview. After the training, the interview was piloted with three respondents before commencement of data collection.

QuIP sample selection

The QuIP interview was carried out with 36 farmers, 24 women and 12 men, who were part of groups who had taken the Equity loan. This sampling decision was taken together with the commissioner, with the intention to hear the stories of change of those farmers who were involved in all aspects of the intervention. However, the fact that the study did not interview groups who had not taken an Equity loan may have compromised the ability to assess the value of loan independently of the other interventions, such as the non-financial activities delivered by HiH. The unequal split between women and men was based on two main reasons: 1) the pilot project specifically targeted women, and 2) the higher number of beneficiaries who accessed the EB loan are women.

The **sampling framework** took into consideration the following criteria:

- Gender: 24 interviews with women and 12 interviews with men;
- Number of group members who accessed loans during the first round: groups where fewer than 6 members had accessed the Equity loan were not taken into consideration, because the study targeted respondents who had accessed at least one loan from Equity, in addition to participating in the other projects' activities, and at least 4 interviews per group were conducted;
- CBO: multiple CBOs were sampled to get a variety of perspectives; and
- Date of access to finance to include members who accessed both in 2022 and 2023.

The sampling of men was done from those groups who have 6 or more men who accessed loans during the first round. There are 4 groups like this, and two of these are from the same CBO. It was decided to sample 4 respondents from 3 different groups, corresponding to three different CBOs. Between the 2 groups from the same CBOs, the project selected the one with more loans disbursed in round 1, to ensure a smooth data collection process.

The sampling of women also took into account those groups who had a higher number of women who took a loan from Equity during the first round of loans. Since there are 8 groups with 6 or more female group members who accessed the Equity loan, the decision was to select 4 groups and interview 6 members in each group. First, groups from the same CBOs selected for men were sampled in order to have both men's and women's perspectives from the same CBOs. This led to the selection of two groups. The selection of the two remaining groups was discussed with the commissioner and the two groups that were considered to be the more active ones were sampled. This was based on the intention to hear stories of change and drivers of change from those groups that had participated in all project's activities.

Based on the above suggestions and discussion with FSD Kenya and HiH, Table 2 shows the final sampling for individual interviews.

QuIP sampling approach

CBO	Group name (year of loan access)	Men	Women	Total
Kwa Kathule	Disabled and abled shg (2023)	4		4
	Kathome dairy farmers (2022)		6	6
Kitwii	Wish self-help group (2023)	4		4
	Muamba wa kithini na utumoni (2023)		6	6
Ngulini	Ngulini Multipurpose (2022)	4		4
Syokilelu	Mapatano syumbuni (2023)		6	6

Mwangaza Poultry CBO	Mwangaza Poultry CBO (2022)		6	6
Total		**12**	**24**	**36**

Data analysis

A QuIP analyst trained in causal qualitative data analysis reviewed and coded the interviews which had been collected by local researchers. Using the **Causal Map App**, an online data analysis tool, **influence** (driver) and **consequence** (outcome) factor labels were allocated to respondents' statements to create visual depictions of their causal claims.

This report contains 'causal maps' which summarise the findings from the interviews, with numbers above the links referring to the number of people who made that causal claim (maps are in chapter X on "Stories of Change"). For more information on how the data is coded and how to read the maps, please see Appendix 4.

Focus Group Discussion

Seven focus group discussion were planned to gather additional primary data from project participants. Of these, one FGD turned into an individual interview as most members who were invited to participate in the discussion could not make it. Four of the FGDs were carried out by the Lead Evaluator and the Kenyan Lead Researcher without revealing the project being evaluated and the name of the study commissioner. Colleagues from FSD Kenya participated in the remaining three FGDs and the blindfolding was not maintained, since respondents knew that FSD Kenya was linked to the Tala pilot through Hand in Hand East Africa. Nevertheless, we did not find that the information shared by these groups differed substantially from that shared by the other groups.

FGDs explored changes in the same domains covered by the QuIP individual interviews, while also explicitly asking about any training and support received by the group, and changes at community level more broadly, also focusing on the differences between members of groups and CBOs and people in the community who are not members of groups and CBOs.

FGDs included between 6 to 20 participants, with the exception of one (as above). The initial plan was to conduct separate FGDs with women and men, as well as separate with members who accessed Equity loans and those who did not. However, in most cases, FGDs included both men and women as well as member who took and who did not take Equity loans.

The data from FGDs was analysed according to themes, triangulated with the stories of change collected from individual interviews and the information gathered through KIIs.

The seven FGDs carried out include:

- Five FGDs with groups who accessed the Equity Bank loan – even if not all members took an Equity loan. These discussions included both men and women;
- One FGD with CBO members who have not been trained by HiH on poultry and joined the CBO to access the Equity loan;
- One FGD with independent farmers who were not part of the project and members of CBOs.

Sampled groups for FGDs

Criteria for sampling	Name of groups sampled
Groups that accessed the Equity Bank loan and was trained by HiH	• Mwangaza Poultry CBO (Kivandini village). • Ngulini Multipurpose (Ngulini village). • Kathome Dairy Farmers (Kwa Kathule village). The group disbanded. • Umatui Women Group (Mitamboni village). • Joskoma Kilimo Women Group (Malaa town) – only one respondent.

Group that accessed the Equity Bank loan but was not trained by HiH	• Kathome Boda Boda (Kwa Kathule village). The group disbanded.
Group of independent farmers who are not part of any CBO and did not participate in project's activities.	• Farmers in Ngulini village

Study limitations

Identification of respondents: Some of the respondents who were sampled based on the lists provided did not take a loan from Equity. Because of blindfolding, the Kenyan Lead Researcher was informed of this only when debriefing with the data collectors. To replace a couple of cases, two additional interviews were scheduled with different respondents. In addition, one FGD was carried out with only one participants as the other three invited had other last minute engagements.

Time of the study: The study took place towards the end of the Tala pilot and the findings shows changes that happened over the period of the pilot project. In order to better assess the sustainability of the changes attributed to the pilot approach over time, it would be useful to carry out an assessment some time after the end of the project.

Control groups: The study explicitly targeted respondents who had been receiving the HiH intervention and were in groups that were linked to Equity. The study did not include a control group in the form of participants who were trained by HiH on poultry but were not linked to Equity and this might have compromised the capacity of the study to assess the contribution of the two interventions on their own. Similarly, the study did not include a control group of individuals who are part of the same communities targeted by the pilot but who had not received any of the interventions (i.e., HiH plus Equity loan). This might have diminished the ability of the study to assess the full value of the combined intervention compared to those who had not been part of it – and additionally, to better understand potential differences in livelihoods between community members who took part in the pilot and those who did not.