The Potential for High Value Livestock Indemnity Insurance in Ethiopia’s Oromiya Region
Executive Summary

Low-income households are vulnerable to an array of perils and have devised a variety of risk management strategies to reduce the impact of economic shocks and unexpected catastrophes. However, many of the strategies employed by low-income households are inadequate and often contribute to increased levels of vulnerability. Low-income households have fewer assets and nominal income which often fluctuate throughout the year. They have limited saving to draw upon and often have to borrow from friends and relatives, obtain emergency credit, borrow informally, or reduce consumption when exposed to exposed to risks.

Poverty and vulnerability reinforce each other in an escalating downward spiral. Not only does exposure to these risks result in substantial financial losses, but vulnerable households also suffer from the ongoing uncertainty about whether and when a loss might occur. Because of this perpetual apprehension, the poor are less likely to take advantage of income-generating opportunities that might reduce poverty.\(^1\) By helping low-income households manage risks via formal micro-insurance schemes, households will feel more secure and willing to invest in their economic activities, while being less vulnerable to stressful events.

Empirical evidence has shown that poor households devise various means to mitigate risks associated with income shocks, disasters and other calamities. However, many informal insurance schemes are found to be inadequate and unreliable. Despite the challenges that come with widespread informality, the informal market is more organized than commonly perceived. A lower-bound estimate would place the number of networked individuals in the informal sector (for example through saving and credit cooperatives\(^3\)) at 4MM - a significant number of people to whom

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\(^2\) Savings and Credit Cooperatives (SACCOs) are almost entirely urban based with membership largely drawn from salaried employees and generally people who share a common purpose and locality. Currently there are about 3,077 SACCOs with approximately 220,055 members. Reportedly, these SACCOs have consistently performed quite well largely due to their political and financial independence. Most of the SACCO members are men. Members are required to save 3% to 5% of their salaries on a monthly basis. Borrowers are charged 1.5% per month and savers paid the regular bank savings rate, which is currently around 6% per annum. All cooperative societies, including SACCOs, are governed and supervised by the Regional Cooperative Promotion Bureaus.
insurance could be distributed via the networks. However, the networked groups are fragmented, with many small organizations. It is not clear what the real cohesion is within such groups and it is likely that only a handful will have the capacity to be viable insurance distribution partners.

Despite the implications of the latter statement savings and credit cooperatives represent a tangible distribution channel for insurance companies interested in targeting low-income clients “downstream.” Nyala Insurance S.C., one of the leading private insurance companies in Ethiopia, has recognized the potential of the latter target group and has piloted two insurance schemes with considerable success.

This study reviews the vulnerabilities of smallholder farmers related to livestock husbandry and evaluates the various risk management strategies employed in order to assess the feasibility of piloting livestock indemnity insurance that adequately safeguards the target group from specific losses; which would encourage greater investment in high value livestock activities.

Objective of the Study

The objective of this study is to identify if there exist substantial demand for livestock indemnity insurance products for high value livestock that are primarily financed by credit and are owned primarily by smallholder farmers, who produce dairy or meat products for market. AEMFI considers that poor urban and rural households require access to a full range of financial products, which includes micro-insurance.

Specific Objectives include:

- Identify specific social and economic characteristics to assess the impact assorted risks have on then households of smallholder farmers (dairy and livestock farmers);
- Understand the role of insurance products, relative to other financial services and non-financial risk-management strategies in meeting the risk-management needs of smallholder farmers;
- Identify existing formal and informal insurance schemes utilized by smallholder farmers;
- Identifying the adequacy of risk mitigating strategies employed by smallholder farmers;
- Assess the access and utilization of financial services;
- Identify respondents’ level of financial literacy with an emphasis on the level of farmers’ comprehension of specific insurance terms;
- Identify the level of demand for specific micro-insurance schemes;
- Provide recommendations regarding the development of micro-insurance products.
Methodology

The study employed participatory, qualitative and quantitative methodologies to measure specific indicators and provide pragmatic recommendations that could facilitate the development of demand driven micro-insurance schemes for smallholder farmers engaged in livestock husbandry. Specific methods applied include quantitative data collection and analysis with sample smallholder farmers; key-informant in-depth interviews; and collection of secondary data. The study covered three Zones within the Oromiya region - Lume-Adama, Sululta, and Adama.

Summary of Survey Findings

This study presents findings specific indicators of the Ethiopian Pilot Indemnity Insurance Project (PILP) survey of a sample of one-hundred twenty smallholder farmers’ representative of three of Ethiopia’s Oromiya regional zones - Adama, Lume and Sululta. The survey reviewed a range of social and economic characteristic; analyzed income sources and income activities; assessed savings and borrowing habits; identified recurring risks related to farming activities; evaluated the level of financial literacy and gauged the extent by which respondents would invest in insurance.

An overwhelming proportion of respondents engaged in agricultural activities as a main source of income. And income levels were relatively high, whereas 43% of the respondents indicated an annual income of Birr 24,000 ($1,791). Congruently respondents were able to acquire major assets such as homes and land. Livestock ownership was highest amongst cattle, goats, and chicken; providing a source of drought power, income, and food. Livestock fattening and exporting represented a relatively small percentage of the main income source activities for surveyed respondents at 10%. Nevertheless, the region is highly concentrated with fattening farmers who would make ideal candidates for micro-insurance. Although livestock dairy production appears as an insignificant main income source all farmers that own cows engage in some form of dairy production.
The survey found that the most common shocks and resulting financial stresses for livestock farmers include: livestock disease, livestock death, livestock fodder problems, adverse market prices, and accidents while transporting livestock. Although the frequency of accidents while transporting livestock was relatively low; focus group discussions with farmers indicated that this was a high ranking risk which they would invest their income into an appropriate insurance product designed to mitigate the loss. Consequently, 36% of the respondents that reported accidents while transporting livestock indicated that they would secure insurance if the event occurred in the future.

A majority of respondents have not formulated risk management mechanisms which may reflect the unavailability of formal risk aversion methods to smallholder farmers or suggests limited capacity to adequately cope with specific risks. For instance, 53% of the respondents reported that they have not adopted coping mechanisms for accidents while transporting livestock. The findings show that the latter risk places substantial financial pressure on the household at a cost of approximately Birr 31,000 farmers representing a significant privation in economic income that could far reaching implications.

Limited coping mechanisms prove the need to widen the availability of risk management options for smallholder farmers to reduce their level of vulnerability. The target group has ascertained specific risks some of which require significant asset allocation to resolve, place high degree of financial stress on the household and increases vulnerability levels. All risks are not insurable; some happen frequently but have nominal impact (i.e., milk spillage). While other happen infrequently but have a devastating effect on the financial resources of the household (i.e., livestock theft). It will be imperative to have a consensus on what risks creates the highest level of vulnerability and identify if the risks can be properly insured.

Respondents appear receptive to up-taking insurance as an aversion to risk. Increased knowledge and understanding of the benefits of indemnity insurance will be essential in fostering latent demand for insurance. Downscaling of commercial insurance has met relative success in Ethiopia and has
assisted farmers with varying forms of protection. The development and testing of innovative insurance products will go a long way to extending risk management and risk reduction mechanisms to households desperately in need of such schemes.

In the absence of formal insurance schemes; one of the most obvious starting points in risk management is savings. Surprisingly, a large proportion of respondents drew down on their savings or utilized available funds to manage risks. Correspondingly, respondents showed a high propensity to save, both formally and informally, making them less vulnerable to shocks; particularly for risks such as livestock disease and livestock reproduction problems which have nominal risk mitigating costs. Nevertheless, the reduction in saving for events such as livestock death and livestock fodder problems is quite costly at Birr 9,294 (694) and Birr 8,277 ($618) respectively. Resulting in a substantial depletion of savings; thereby increasing level of vulnerability. Respondent’s preference in terms of savings mode were banks and informal Iqqub; and a significant amount of respondents reported saving cash at home. Despite the high utilization of banks respondents reported limited borrowing from banks but rather secured credit from microfinance institutions.

A limited amount of respondents have purchased insurance in the past ten years (livestock, crop, property and car insurance). However, a significant number of respondents participate in informal community based death insurance (Iddir). Despite the limited insurance uptake respondent’s familiarity and basic understanding of insurance terms was relatively high. Moreover, respondents showed a modest understanding of key banking words and phrases. A majority of respondents obtain financial service information from family and friends which lends itself to targeting communal organizations (cooperatives / unions) as important informational catalysts.

**Conclusion**

Short-term economic shocks have long-term consequences for low-income households that are forced to reduce investment in child health and schooling or to sell productive assets in order to maintain consumption. The covariate nature of many of these shocks means that traditional mutual assistance or informal insurance mechanisms tend to break down. Governments may attempt to mitigate the shock with safety nets – often with donor assistance – but these programs are often stop-and-go and may fail to respond in a timely manner.³

³ See short-term Ethiopian governmental mitigation measures related to insurance in case study XXXXXX
Household financial vulnerability is directly correlated with smallholder farmers’ income generating activities. The manifestation of financial stressful events that directly heighten households existing economic fragility can be detrimental to the livelihood of smallholder farmers engaged in dairy and livestock farming. The early lessons of the micro-insurance experience and developments in microfinance suggest that the poor will continue to use a mix of risk management tools. However, none of the existing strategies will provide 100% of the coverage. Micro-insurance can potentially fill these gaps.4

Micro-insurance can play a critical role in enhancing the risk management strategies of low-income households. The survey reveals the prospects of weighty recurring risks that require substantial resources to mitigate. Low-income households have shown a propensity to overcome some of the risks that they encounter, however, an overwhelming amount of respondents have not devised coping mechanism for many shocks; which reveals narrow aversions / limited capacity to mitigate risks - trapping households in a vicious cycle of poverty.

The survey reveals that an overwhelming percentage of respondent’s perception of insurance is positive and there appears to be a strong demand for specific micro-insurance schemes which would permit the implementation of the pilot micro-insurance. Moreover, a cursory review of alternative risk management strategies indicate that a significant percentage of respondents would indeed uptake insurance if provided the opportunity of accessible insurance products that properly addresses their needs.5 The latter findings parallel recent Oxfam America research in Ethiopia’s Tigray region which revealed that that 88% of their sampled households believe insurance could be an effective means of addressing risk that threaten their well-being.6

Indeed the survey revealed that a pilot insurance scheme will require an extensive financial literacy and educational awareness program to enhance smallholder farmers’ basic knowledge and understanding of insurance schemes. A recent survey of 300 microfinance clients revealed that over 78% of the participants “Only want to be engaged in activities that they know something about previously.”7

Furthermore, consideration must be given to respondents existing risk mitigating mechanisms (i.e., savings, selling agricultural produce, borrowing from friends/relatives) and offer micro-insurance as a more viable risk transfer option while building on strengths of existing formal/informal schemes

5 See Table____
and filling gaps as needed. Indeed, empirical research indicates that a majority of Ethiopia’s rural households obtain their financial intermediation from the informal financial sector.\(^8\) Given the latter, it is imperative to investigate informal market delivery mechanism and attempt to transfer applicable methodologies to the formal market where appropriate.

The survey revealed that livestock disease (86%); Livestock death (62%); livestock fodder problems; and adverse market prices were capacious risks in respect to respondents reporting their occurrence. However, the frequency of the latter risks was minimal, occurring 1-3 times in a three year period.

Livestock death and adverse market prices related to livestock sales placed substantial pressure on smallholder farmers. A majority of respondents utilized their own funds or have not developed appropriate mechanisms to respond to the risks. The narrow frequency of the indicated events coupled with the high financial pressure placed on households suggests the possibility of developing insurance products which mitigate financial pressure on smallholder farmers due to the costs to recoup from the losses.

Although merely 13% of the respondents reported the occurrence of accidents while transporting livestock focus group discussions revealed that the risk ranked high amongst smallholder farmers and farmers were adamant about securing micro-insurance that would mitigate risks associated with livestock transportation which is apparent by the results of the coping mechanism reassessment options that indicate that 36% of the respondents would secure insurance if the option were available.

The appropriateness of developing insurance products for the indicated risks is strengthened by the fact that:

1.) A substantial number of respondents either utilized their own funds or had not devised a coping mechanism to respond to the indicated risks, and

2.) When respondents were asked to reassess their coping mechanisms, in the event that the occurred in the future, a considerable amount of respondents indicated insurance as a viable risk mitigating alternative.

Since micro-insurance is just one of several risk-management tools available to low-income households, organizations truly concerned about helping the poor to manage risks should assess

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\(^8\) There are various types of informal organizations in Ethiopia. These include private sector rotating savings and credit groups such as *Iddir* and *Iqquib* that are initiated and organized by the people themselves, under the premise of financial relations based on reciprocity. The other group of informal organizations is privately owned informal services or informal professional operators providing financial services on commercial terms, either as their main occupation, or as part of their business enterprise, or as a part-time occupation.
whether the provision of micro-insurance is the most appropriate response. For risks that result in small losses, for risk with high predictability of occurrence or high frequency of occurrence, savings and emergency loans would be more appropriate risk managing financial services. Saving and credit are also more flexible than insurance as they can be used for a variety of different risks (and opportunities). Insurance, on the other hand, provides more complete coverage for large losses than poor households could provide on their own. For these larger risks, participating in a risk pool is a more efficient means of accessing protection than if households trying to protect themselves independently.9

The literature on insurance notes the importance of moral hazard, under which the insured individual modifies their behavior in response to having insurance, and thus changes the probability of an adverse outcome. The up-side of changing behavioral incentives is the possibility that an individual who has chosen a low-risk, low-yield production strategy shift to one that with a higher expectation when they have access to insurance. Similarly, because poor households often cannot utilize insurance – or they find informal insurance substitutes inadequate – they de-capitalize their assets in the face of income shocks. This phenomenon is apparent in this study whereas respondents sold-off assets and agricultural produce as a risk management strategy. Access to insurance can prevent such de-capitalization, thereby preserving productivity and potential to participate in economic growth. Indeed, both these implications provide an efficiency rationale for addressing market failures in the provision of insurance.10

Evidence also indicates that poor segments of society are typically less able to buy informal insurance than are wealthier segments in response to the same covariate shock, such as prolonged draught. Clearly they have fewer assets to sell or savings to draw down. Moreover, poorer households are engaged in mutual assistance networks to the extent possible but since these networks are usually resource constrained to begin with, the impact of these efforts is most often not adequate to meet the needs arising climatic or economic shock. Consequently, lack of insurance - formal or informal - can worsen the income inequality within society, thus providing an equity rationale for addressing insurance market failure as well as the efficiency rationale mentioned above.11

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11 Ibid
Considering the promising market-oriented developments and interventions aimed to strengthen and expand market opportunities for smallholder farmers and pastoralists coupled with the fact that a considerable amount of households rely on livestock production for their livelihood and the livestock subsector holds a prominent position in the country’s economic development; it seems appropriate to design livestock insurance products to reduce the level of risk involved in livestock production. The most obvious starting point would be to develop an insurance product that responds to demands signified by informal risk mitigating practices in the informal market - namely, the provision of livestock indemnity insurance. Like many developing countries, Ethiopia’s insurance industry is underdeveloped. However, we are beginning to see promising moves (increased demand-driven supply), by several insurance companies towards market expansion and product development such initiatives include weather and crop insurance pilot tests. Research by the Centre for Financial Regulation and Inclusion indicates that international micro-insurance experiences show that development and expansion of the sector is primarily accomplished through credit delivery systems – as credit based insurance presents significant and easy to reach opportunities to enter into low-income markets. The latter findings point towards promising prospects for the insurance industry to capitalize on the distribution channel and client aggregate established by the microfinance industry, particularly in rural settings.

Micro-insurance can play a crucial role in reducing the vulnerability of poor households and ultimately enable the poor to mitigate their material risks and increase their welfare through the development and expansion of the insurance market. It must be noted that the availability of insurance products is not sufficient to achieve the goal of reduced vulnerability and improved welfare. To deliver value, low income insurance products should also be affordable and appropriate to the needs of the poor. This requires sufficient awareness of the availability and value of insurance among the poor as well as the ability to claim on policies.12

**Recommendations for Piloting Livestock Indemnity Insurance**

The following recommendations were made on the basis of the findings and conclusion of the study:

- Develop and implement micro-insurance schemes for smallholder farmers (livestock and dairy) and scale-up the project to include additional financial cooperatives and/or microfinance institutions;

- Utilize financial cooperatives with strong delivery capacity as intermediaries to pilot micro-insurance schemes to reduce administrative and monitoring costs and ensure financial cooperatives that they are not responsible for carrying all the risks involved in the delivery of the micro-insurance schemes;

- Review existing risk management strategies employed by target group and identify alternative financial services employed by financial cooperatives that help potential clients manage risks which are not insurable (i.e., formal saving mechanisms).

- Identify risk-pooling mechanisms in the selection of potential micro-insurance clients / insurable risk to reduce losses resulting from the occurrence of a particular risky event;

- Bundle micro-insurance pilot schemes with financial intermediary services and/or livestock husbandry input services (i.e., credit and savings combined with agricultural inputs and veterinarian services);

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13 Micro-insurance provides financial services to low-income clients which are designed to be beneficial and affordable for the sub-group; and developed to mitigate risks associated with the occurrence of particular losses. Clients affected by a negative event benefit from the contributions of many others that are not affected and, as a result, receive compensation that is greater than the amount they have invested in the insurance policy.
➢ Develop a toolkit\textsuperscript{14} of specific financial literacy enhancement programs/initiatives to increase knowledge / understanding of micro-insurance amongst smallholder farmers ensuring;

➢ Assist potential clients to have a clear understanding of the complexity of varying insurance products;

➢ Involve potential beneficiaries of the livestock indemnity insurance in the pilot’s product design (insurable risks, cost of premium and payouts, timing of premium and the bundling of micro-insurance with financial services and/or germane livestock husbandry services) process; thereby strengthening the pilot project and enhancing trusts amongst the targeted community;

➢ Reduce probable incidents of moral hazard;

➢ Utilize expertise of financial cooperatives in the livestock indemnity insurance pilot program’s client selection process to reducing adverse selection;

➢ Insure insurance company that delivers the pilot micro-insurance scheme obtains reinsurance to reduce financial stress on the organization in the event of widespread insurance claims.

\textsuperscript{14} The \textit{Financial Literacy Toolkit} should be developed by the insurance company that provides the micro-insurance service in conjunction with key stakeholders (i.e., AEMFI, insurance company, financial cooperatives, and potential clients) and include workshops, marketing campaigns, and ______
Background

Ethiopia has a land area of approximately 1.13 million km² and an estimated human population of 81 million growing at a rate of 2.7% per annum. About 85% of the population lives in rural areas and practices sedentary agriculture and livestock production. Agriculture accounts for 45% of the GDP and 85% of export earnings, and the sector employs about 85% of the population. Ethiopia’s highland comprises 40% of the country’s land area, holds 88% of the human population and 74% of the tropical livestock units. The main activity is a mixed crop-livestock farming system dominated by crop production and accounts for more than 90% of the country’s economic activity. Livestock are vital to crop cultivation as the traditional ox-plow method of farming is a defining feature in the highlands. In contrast, the lowland comprises 60% of the country’s land area and 12.2% of the total human population, and approximately 25% of the livestock population. The area is dominated by a pastoralist population whose economy is entirely dependent on livestock husbandry, which provides a basis of the food production and economic system.

Ethiopia has the largest livestock population in Africa. It is estimated at 105 million tropical livestock units, which includes 49.3 million heads of cattle, 47 million heads of sheep and goat, 8.3 million equines, 760 thousand camels and a poultry population of 38.13 million. Cattle play the most important role in the farming economy followed by sheep and goats. Poultry farming is widely practiced in Ethiopia and small farmers use them for consumption purposes and a source of cash income.

The livestock subsector is an integral part of the country’s agricultural production system and contributes significantly to the country’s economic development – the contribution of livestock and livestock products to the agricultural economy accounts for 40%, excluding the value of draught power, transport and manure.\textsuperscript{17} Moreover, studies indicate that livestock contributes an estimated 16 % to the total GDP. According to the National Bank of Ethiopia leather and leather products,\textsuperscript{18} meat and meat products, and live animals accounted for 7.2%, 2.4% and 4.5% of total exports for the first quarter of 2008/09 respectively. The cumulative value of export livestock items represented revenue of $49.5 million – accounting for a 14% share of Ethiopia’s major export items for the indicated quarter.\textsuperscript{19}

Livestock contributes to the livelihood of 60-70% of the Ethiopian population - this translates into approximately 44-52 million people whose subsidiary needs and economic activities rely on livestock production. It serves as a source of draught power, provides a mode of transportation, supplies households with meat, milk and nutrition, serves as an important source of cash income, plays significant social and cultural roles, and is a form of asset accumulation to protect against unforeseen risks. Moreover, field studies for the Institute of Development Studies have found that livestock accounts for 37-38% of rural households cash income. The study revealed that as cash incomes increased a greater proportion was derived primarily from livestock (as opposed to crops). Conversely, a recent study on destitution in the northern highlands of Ethiopia found that the ownership of livestock was a critical factor in determining whether a household would be able to be self-provisioning or fall into poverty from which it would be difficult to escape.\textsuperscript{20}

\textsuperscript{17} Winrock International. (1992). \textit{Assessment of animal agriculture in sub-Saharan Africa}. Winrock International Institute for Animal Agriculture: Morrilton, Arkansas
\textsuperscript{18} Previously known as hides and skins.
\textsuperscript{20} Devereux, S; Sharp, K; Amare, Y. (2002). \textit{Destitution in the northeastern highlands (Amhara region)}. Interim report prepared for the Institute of Development Studies. Sussex and Save the Children UK, Ethiopia: Addis Ababa and Sussex
The figures outlined above undoubtedly demonstrate the significant role livestock plays in Ethiopia’s economy both in terms of individual self-subsistence and economic development. Ethiopian households have traditionally utilized livestock for asset accumulation, which offers a means for self-provisioning, acts as a buffer against unremitting poverty and provides a springboard for economic advancement. Despite its contribution to the national economy and individual livelihoods, livestock production, until recently, has not received the attention it warrants in terms of being integrated into the poverty reduction strategy nor the national developmental policies and planning processes. Furthermore, there has been minimal governmental investment in livestock research, education and extension services. Recent trends, however, indicate that there is adequate government recognition of the huge and yet untapped potential of the sector and has renewed efforts to develop and elevate its contributions in both domestic and export markets. The public sector has now realized this trend and encouraging changes in approaches and methods to develop the sector are happening.21

The International Livestock Research Institute suggests that the recent growth in the demand for livestock and livestock products in the domestic and export market has resulted in increased interventions to engage farmers and pastoralists in a more market-oriented livestock production in areas where the resources offer the opportunities. The government and private sectors realized the untapped potential of the livestock market and are taking appropriate steps to strengthen and expand market opportunities. For example, the Ministry of Agriculture and Rural Development (MoARD) handles livestock input by purchasing and delivering small ruminant (breeding and farming), cattle (fattening, drought), improved poultry (egg, meat) and improved dairy animals on credit; and artificial insemination and veterinarian services at subsidized rates.22 An illustration of private sector involvement can be found in recent food security programs, rural finance and micro and small scale enterprises engagement in livestock development based on credit; not to mention the various livestock development projects (i.e., the Pastoralist Livelihood Project (PLI) supported by the World Bank, and the Ethiopian Dairy Development Project led by Land O’ Lakes) carried out to minimize/overcome the development constraints of the sub-sector.

22 Ibid
More importantly, the government prepared a National Ruminant Livestock Development Strategy with a policy objective of developing and utilizing the available resources and increase the livestock subsectors contribution to the social and economic development of the country. The strategy contains specific components which address industrial constraints which include increasing the supply and quality of feed and nutrition, control and eradicate ruminant livestock disease, improve milk and meat production, and improve the efficiency of livestock and livestock products marketing.23

The paradigm shift towards market-oriented livestock production coupled with developmental initiatives focused on strengthening the capacity of the sector will have profound ramifications in terms of enabling farmers, pastoralists and private commercial producers to enhance the quality and quantity of livestock supply, present greater economic opportunities, and contribute to the development of the national economy. Many would also conjecture that the various supplementary sector investments will have positive effects on the household level. For instance, initiatives that bolster livestock productivity and production and/or strengthen input/output markets would enable farmers and pastoralists to command greater market prices in more accessible forums thereby permitting producers to offset household expenses and to purchase crop inputs leading to greater levels of sustainability and food security on the household level. The recent market-oriented approach and its resulting positive dividends should certainly stimulate producers to invest in higher value livestock.

The development and expansion of the sector has been inhibited by drought, reduced grazing areas, ruminant disease, insufficient nutrition, marginal production and productivity, inadequate breeding improvements, and limited support services. The latter industrial constraints are undoubtedly prevalent market conditions which are being aptly addressed via various initiatives as indicated previously. Nevertheless, livestock accounts for 37-38% of rural household’s cash income - a substantial percentage - any disruptions in the latter income would have overwhelming affects on household stability and therefore increase levels of vulnerability. For instance, following the severe drought conditions of 1999/2000 the Agricultural Department reported livestock mortality estimates of 80% in some pastoral woredas (districts). Accordingly, such conditions reduce per capita livestock holdings and livestock production and productivity decline resulting in unfavorable smallholder trade terms. The consequences are particularly grave for pastoralists who tend to sell their livestock during periods of drought or erratic rain in order to purchase staple crops to make it through the lean period – however, adverse trade terms diminish household purchasing power and thereby contribute to food insecurity.

The International Livestock Research Institute indicates that livestock based communities have established coping mechanisms for dealing with natural calamities which result in the loss of livestock and livelihood - communities respond by contributing breeding animals and food aid to affected households. The existence of such informal coping mechanisms suggests prevailing gaps in the formal market but also inform investigators regarding the possible development of effective formal insurance mechanisms that would appropriately address the needs of livestock producers.

Financial services in the form of providing credit/loans for the purchase of livestock, feed, health services, and insurance against the loss of valuable productive assets may perform an important role not only in encouraging investments in new technology but also in coping with difficult problems such as drought and disease.25 Private and public investment is encouraging as the livestock sector is experiencing increased demand for livestock and livestock products not to mention the fact that increased population growth (3% per annum) will place even greater pressure on the sector to augment increasing meat and dairy consumption needs. Government and private sector developments within the livestock sector should encourage small holder farmers to invest in high-value livestock, which will in turn lead to higher incomes and enhanced levels of food security.

The source for financing livestock development is derived from banks and microfinance institutions. The involvement of commercial banks is limited and most often they provide credit in situations where the government provides incentives for special agricultural development activities or are supported with guarantee capital against loss of animals or low repayment rates.26 Microfinance institutions provide credit for livestock development and have been successful in reaching rural smallholders involved in livestock production.

The absence of formal livestock insurance has led households to developed unique coping mechanisms to fill the vacuum, thereby safeguarding their livestock assets and reducing levels of vulnerability. Livestock insurance has received little attention until recent disease outbreaks have heightened the visibility of their large economic and financial costs to producers and the wider economy in developed countries. The underlying rationale related to the risk associated with livestock production due to unpredictable disease outbreaks that might incur high economic losses at several levels, from individual to national and regional.27

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26 www.ipms-ethiopia.org/.../Input%20Supply%20System%20and%20Services%20for%20Marke...
27 Similar. ILRI: Addis Ababa
Considering the promising market-oriented developments and interventions aimed to strengthen and expand market opportunities for smallholder farmers and pastoralists coupled with the fact that a considerable amount of households rely on livestock production for their livelihood and the livestock subsector holds a prominent position in the country’s economic development; it seems appropriate to design livestock insurance products to reduce the level of risk involved in livestock production. The most obvious starting point would be to develop an insurance product that responds to demands signified by informal risk mitigating practices in the informal market - namely, the provision of livestock indemnity insurance. Like many developing countries, Ethiopia’s insurance industry is underdeveloped. However, we are beginning to see promising moves (increased demand-driven supply), by several insurance companies towards market expansion and product development such initiatives include weather and crop insurance pilot tests. Research by the Centre for Financial Regulation and Inclusion indicates that international micro-insurance experiences show that development and expansion of the sector is primarily accomplished through credit delivery systems – as credit based insurance presents significant and easy to reach opportunities to enter into low-income markets. The latter findings point towards promising prospects for the insurance industry to capitalize on the distribution channel and client aggregate established by the microfinance industry, particularly in rural settings.

Micro-insurance can play a crucial role in reducing the vulnerability of poor households and ultimately enable the poor to mitigate their material risks and increase their welfare through the development and expansion of the insurance market. It must be noted that the availability of insurance products is not sufficient to achieve the goal of reduced vulnerability and improved welfare. To deliver value, low income insurance products should also be affordable and appropriate to the needs of the poor. This requires sufficient awareness of the availability and value of insurance among the poor as well as the ability to claim on policies.28

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Preface

In various forms micro-insurance has been available to the low-income people in Africa for a number of years. Cooperative Insurers have serviced a market that spans the income ranges since the 1970s. In the 1980s, community-based health insurance schemes, especially in West Africa, followed the Bamako Initiative. In the mid-1990’s, commercial insurers began to enter the market offering specialized micro-insurance products. Informal micro-insurance has been available for decades in the range of forms, from tontines in West Africa or friends in need in East Africa. In the Ethiopian context, households have had the support of Iqqub and Idder which function as informal group-based mechanisms to support individuals in time of need. Over the last ten years insurance has developed into a widely recognized financial intervention to help Africa’s low-income population to manage their financial risks.

Although low-income households have developed an array of coping mechanism to mitigate risks the effectiveness of these strategies are limited. The foundation of a risk management strategy which adequately addresses vulnerability is a steady income flow. Households must have a main income source by which they can accumulate assets and develop savings. Without the benefit of a wealth of resources and assets to draw upon low-income households are vulnerable to an array of covariant risks. The reoccurrence of shocks or unexpected risks could have significant consequences to households that have not developed adequate coping mechanisms.

Ethiopian insurance companies have realized the importance of servicing low-income clients and have been working aggressively to develop appropriate products to protect households from disaster. For example, an index insurance pilot is being developed in Ethiopia by Oxfam America...
and Swiss Re\textsuperscript{32} leading, in collaboration with IRI, the Relief Society of Tigray (REST) and other partners. Still at a relatively early stage, this project is taking a farmer centric approach, and is working to integrate index insurance with other risk reduction strategy activities such as improved agronomic practices, conservation measures, and seasonal and daily weather forecasting. Project innovations include the extension of weather insurance to communities that are technically challenging to serve, and methods that allow cash-constrained farmers to pay premiums with their labor. Swiss Re’s role is to review and adapt weather insurance index insurance contracts for commercial viability and conformity to market standards.\textsuperscript{33}

In Ethiopia’s commercial insurance market, Nyala Insurance has successfully moved down stream to provide smallholder farmers with two types of crop insurance: multiple-peril crop insurance (MPCI) and indexed based insurance, each designed to meet the needs of different farmers. Nyala’s MPCI is a double-trigger scheme that insures farmers against a number of different shocks that affect crop yields, including shortages of rainfall, excess rainfall, fire, and transit risks. Nyala’s index-based drought insurance products have been introduced as a way to avoid some of the drawbacks of traditional insurance mechanism. Rather than paying out as an indemnity when a crop fails – an index-based approach simply uses a measure such as rainfall, temperature, or soil moisture to insure against drought or other covariant risks.\textsuperscript{34}

The Association of Ethiopian Microfinance Institutions and the World Bank have an interest in broadening the availability and access of financial services to low income households throughout Ethiopia. Low income households have a variety of financial service needs which reach far beyond simply credit and savings. Low income households can also benefit from Point of Sale (POS) services, mobile banking, remittances, money transfers and insurance.

The collaboration between the World Bank and AEMFI entitled, the Ethiopian Pilot Indemnity Insurance Project (PILP), represents an effort to analyze the potential of livestock indemnity insurance. AEMFI will build on the efforts of the Ethiopian government, Oxfam America, Rest, Nyala Insurance and others to extend a vital service to households marginalized by the financial

\textsuperscript{32} One of the world’s leading reinsurance companies


This report presents finding of the Ethiopian Pilot Indemnity Insurance Project (PILP) survey of a sample of one-hundred twenty smallholder farmers’ representative of three of Ethiopia’s Oromiya regional zones - Adama, Lume and Sululta. The results of the survey are instrumental in critiquing the feasibility of developing of micro-insurance products to smallholder livestock farmers - namely livestock dairy and fattening farmers – designed to adequately mitigate costly and unpredictable risks.

The survey was designed to identify specific social and economic characteristics and to assess the impact assorted risks have on the households of smallholder farmers. The survey also reviews access and utilization of financial services amongst farmers while examining levels of overall financial literacy with an emphasis on the level of farmers’ comprehension of specific insurance terms. Moreover, the survey provided respondents with an opportunity to review two livestock indemnity insurance product concepts in order to identify specific product characteristic that would appeal to the needs of livestock farmers in respect to mitigating specific risks.

To complement the survey, guided focus group discussions were implemented to fill in any information gaps identified in the questionnaire results and provided a more comprehensive understanding of insurable risks and insurance products that could be properly packaged for livestock farmers.
Methodology
The survey was conducted in the Oromiya, Ethiopia’s largest region, which represents 36.7% of the country’s total population of 73.9 million people.\(^35\) The Oromiya region was selected because of its high population density and its rural geographic characteristics. Moreover, the region has a respectable number of microfinance institutions and Rural Savings and Credit Cooperatives (RUSACCOs) that could potentially become viable delivery channels for micro-insurance.

The specific zones within the region (Adama, Lume and Sululta) are peri-urban areas and were selected for the survey based upon their proximity to Addis Ababa and the high concentration of livestock dairy and fattening farming activity which occur in the areas. The smallholder dairy farmers within the selected zones provide an important source of dairy to surrounding households as well as supply fresh milk to local cooperatives/unions (community organizations formed to provide greater market opportunities and bargaining power for its members) who in-turn transport the milk to dairy /processors/producers (Mama Dairy and Shoa Dairy) in Addis Ababa.

AEMFI’s relationship with the Federal Cooperative Agency permitted access to dairy and farming cooperatives in the selected zones. Preliminary discussions were held with executives from Selale Dairy Farmers Union, Ethiopian Professional Traders Association, and the Lume-Adama Farmers’ Cooperative Union to perform a cursory review of the risks and constraints of livestock husbandry and ascertain willingness and capacity to participate the pilot livestock indemnity insurance project. The latter cooperatives were selected based upon the activity they support (dairy and fattening farmers), the accessibility they provide to farmers and their potential ability to act as agents in supplying micro-insurance to smallholder farmers.

The survey tool was designed and prepared by AEMFI and the draft questionnaire was reviewed by various stakeholders including the World Bank PLIP project task team, and an International Labour Organization micro-insurance technical advisor – comments were incorporated into the draft instrument. Professional enumerators from the Ethiopian Economic Association were selected to collect the data. Field enumerators were properly trained and pre-tested the instrument and further improved the questionnaire prior to main data collection.

Random sampling\textsuperscript{36} was applied to the members of Selale Dairy Farmers Union, Ethiopian Professional Traders Association, and the Lume-Adama Farmers’ Cooperative Union. The limited amount of time and resources allocated to the survey component of the project permitted a total sample size of 120 interviews – 40\% of the respondents were taken from Lume-Adama (48 respondents), 33\% from Sululta (40 respondents), and 27\% from Adama (32 respondents). The structured questionnaire was administered face-face to key informants.

Focus group discussions were conducted with smallholder farmers who are members of local cooperative/ unions to supplement the qualitative research. The discussions centered on risks\textsuperscript{37} and risk management strategies\textsuperscript{38} employed by the farmers and focused on the following:

- Range of risks and the effectiveness of coping strategies
- Ranking of key risks in terms of the financial pressure placed on households
- The prevalence of specific risks over the course of a year
- The likelihood of investing in insurance to mitigate risks in the future

\textsuperscript{36} Random means that individual farmers in a Cooperative had an equal chance of being selected from a Cooperative’s members list for each sampled Cooperative. Lists of Cooperative member were provided by Cooperative managers.

\textsuperscript{37} Risk is defined as the chance of a loss or a loss itself.

\textsuperscript{38} Risk management strategy is defined as a coping mechanism to mitigate risk.
Social Characteristics
The Social Characteristics provide an overview of the potential market segment for livestock indemnity insurance which will prove useful when developing a marketing strategy for any proposed micro-insurance products. Responses to shocks involve different risk management strategies and vary according to people’s age, household resources, educational level, and marital status. The latter variables provide a perspective into the range of risk management mechanisms households can access.

Gender
The sex composition of the Oromiya region is evenly distributed at 50.5% male and 49.8% female. However, the sample was not representative of the population whereby, 85% of the respondents were male and 15% were female. This may be attributed to the fact that the majority of fattening farmers are male. However, the data negates the assumption that a large portion of females actively participate in dairy farming.

Age
The age of the respondents ranged between nineteen (19) to eighty (80) years old. The average age of the respondents is forty-three (43) which implies that the average respondent is at age in which they will begin to accumulate a larger portion of their income wealth in a stable manner.

Marital Status
A majority of the respondents were married 86.7% suggesting a greater degree of vulnerability related to overseen shock given the demands of supporting and sustaining a household. Merely 9.2% of the respondents were single, 1.7% were divorced / separated and 2.5% were widowed. The household size of respondents were rather large ranging from one (1) to sixteen (16). The mean household size was 7.5 family members and the average household size was 8.5 members. 45% of the respondent’s household size was between four (4) and six (6) and 35% of the respondent’s household size ranged from eight (8) to sixteen (16) members. Again, the large household size of the respondents may suggest that any serious external shocks to income would prove detrimental to the financial structure of the household.

Education Level
The World Economic Forms most recent Global Competitiveness Report (2009-2010) ranks Ethiopia’s level of primary and secondary enrolment relatively high at 123 and 121 respectively - based upon a maximum ranking of 133. The survey reflects the report’s findings whereby 30% of the respondents received some primary education. 7.5% of the respondents completed primary, 14.2% completed some secondary and 18.3% of the respondents completed secondary education; while 2.7% received some form of informal education (Unexpectedly, 6.7% of the respondents received technical training after secondary school and 5.8% attended university). The results indicate that the potential market will have a moderate literacy rate which will support a marketing campaign which incorporates knowledge enhancement literature and brochures in the local language.
Economic Activities and Income Source

Assessment of respondents’ economic activities and income sources permits the evaluation of respondents’ level of vulnerability which is directly related to a household’s capacity to maintain recurrent income flows. Vulnerability is closely associated with poverty and can be described as the ability of individuals and household to deal with risk. Risks come in many forms and mitigating strategies often place financial pressure on low-income households. When financial pressure exceed the cash flow capacity of the household, people must seek finance from outside—be it from formal or informal sources. In some circumstances, micro-insurance could be an option for filling this gap.39

Main Source of Income

Agriculture accounts for 45% of Ethiopia’s GDP and 85% of the export earnings, agriculture sector employs about 85% of the population. Correspondingly the main employment activity of the respondents was agriculture or an agriculture related activity (85%). 33% of the respondents indicated that agriculture is their main activity and 21.7% reported farming as their main income source – this may suggest that approximately half the responds may rely on self-subsistence agriculture for their livelihood; making livestock a significant factor for production. 10% of the respondents signified that agricultural livestock is their main employment activity. 9% are engaged in livestock fattening and 1.7% combine both livestock fattening and livestock exporting activities. 5.9% of the respondents are involved in dairy production as a main employment activity and 3.3% participate in trade activity. Miscellaneous employment activities (service metal worker / administration /driver, etc.) are the main source of income for 14.8% of the respondents.

<table>
<thead>
<tr>
<th>Country</th>
<th>Agriculture as a Share of GDP</th>
<th>Agricultural Labour as a % of Total Labour Force (1990)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethiopia</td>
<td>45</td>
<td>86</td>
</tr>
<tr>
<td>Kenya</td>
<td>29.7</td>
<td>80</td>
</tr>
<tr>
<td>Rwanda</td>
<td>37.8</td>
<td>92</td>
</tr>
<tr>
<td>Uganda</td>
<td>49.5</td>
<td>85</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>18.7</td>
<td>75</td>
</tr>
<tr>
<td>South Africa</td>
<td>4.4</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: World Bank

**Household Monthly Income**

Income levels are higher than expected with 43% of the respondents indicating a monthly income of Birr 2,000 which is equivalent to Birr 24,000 per annum. 40 32.5% reported a monthly income range of Birr 1,000 – Birr 2,000 (Birr 12,000 – Birr 24,000 per annum). On the lower end of the income spectrum 23.3% of the respondents reported monthly income ranges between merely Birr 300 – Birr 500. (Birr 3,600 – Birr 6,000 per annum). Monthly incomes vacillate between two extremes suggesting that proposed indemnity insurance products must be carefully priced to effectively attract and penetrate the targeted market segment.

**Other Source of Income**

An alarming 49.2% of the respondents did not engage in other income generating activities to secure additional income, suggesting heavy reliance on one income activity and a static income management strategy. Such households that have not accumulated an adequate saving base could become vulnerable if an unforeseen shock inhibits their productivity (i.e., livestock disease, death of livestock, accident while transporting livestock.)

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40 Birr 24,000 is equivalent to $1,791USD; Birr 12,000 is equivalent to $896USD; Birr 6,000 is equivalent to $448USD; Birr 500 is equivalent to $37USD as of June 2010.
29.2% have other income sources, but did not specify how that income was earned. 11.7% of the respondents derived other income from trade activities, while 3.3% of the respondents received income from rental services such as equipment, car or house. Surprisingly merely 1.7% of the respondents received pension income and only .8% of the respondents received remittances from abroad.

**Economic Characteristics**

Respondent’s economic characteristics are analyzed according to asset ownership as assets play an important role for poor households in protecting against risks, coping with economic loss, and maintaining a minimum economic threshold. Moser (1998) describes the critical relationship between vulnerability and asset ownership. Vulnerability involves not only identifying a threat or source of risk but also the resilience or responsiveness of individuals, households, or communities in exploiting opportunities and in resisting or recovering from the negative effects of an insecure environment. According to Moser, the means of resistance are the assets and entitlements that individuals, households, or communities can mobilize and manage in the face of hardship. Vulnerability is therefore closely linked to asset ownership. The more assets people have, the less vulnerable they are. The greater the erosion of people’s assets, the greater is their insecurity.41

AEMFI examined specific physical assets to gauge the resilience levels of the sample group. Physical assets accumulation can indicate a level of economic stability and can also denote a

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risk management strategy insofar as households have the potential to liquidate or sell assets to protect against risk and cope with losses. Asset ownership amongst the respondents was relatively high with individuals owning substantial items such as land, homes and televisions. These assets could be utilized as collateral to secure emergency loans or quickly liquidated in times of crisis. 95% of the sampled respondents own their own home; over 80% own radios and mobile phone; 33.3% of the respondents reported owning a refrigerator (a relatively expensive consumer item in Ethiopia). Surprisingly, 13% of the respondents (16) owned a car - a very expensive item in Ethiopia given that levy’s on vehicles can be over 100% of the cars value.

Land Ownership

Land tenure has been and continues to be a particularly sensitive issue in Ethiopia. Debate about land tenure has gone on for decades. The key issue for both peasants and pastoralist is security of tenure. The position of the government has been that peasants’ land rights need to be protected. Land is owned by the state, and cannot be sold or exchanged for other property or be mortgaged. The government’s main concern is that if peasants have freehold tenure, during a crisis period they might be forced to sell their land – leading to destitution from which they may never recover. The government is committed to efficient land leasing, including long leases for commercial farming. Land is heritable and farmers are allowed to rent lands and hire labour and engage in renting and sharecropping arrangements.

<table>
<thead>
<tr>
<th>Country</th>
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<tr>
<td>Ethiopia</td>
<td>Land reform in the 1970s allowed for a maximum plot size of 10 ha. But in practice, plot size varies from 0.25-.05 ha in a densely populated area to 1.5-2 ha in the cereal-complex zone. Under existing conditions, the average Ethiopian household requires 3-4 ha of good land with normal rainfall to meet its needs.</td>
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<td>Rwanda</td>
<td>About 80% of the population owes less than 1.9 ha, of this 60% own less than 1.1 ha, of which 40% farm less than 0.65ha and 20% have plots of less than 0.37 ha.</td>
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<td>Uganda</td>
<td>There are approximately 1.6 ha of cultivated land per family, with about half of this being used while the remainder is fallowed.</td>
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<td>Large-scale commercial farms are located in areas with good agricultural potential. Communal areas are founded in the more arid regions of the country. The average communal farm is 16 ha, and the average resettlement farm is 58 ha. However, arable land area in both communal and resettlement farms are 3-5 ha on average.</td>
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| South Africa| In the homelands, arable land per family per person varies from 0.27-to 0.08 ha.  

A majority of the sampled respondents (64.2%) own some form of agricultural land. 35.8% of the respondents reported that they did not own any land. Total agricultural land ownership ranged from .1 hectare to 53 hectares. Average ownership stood at 7.7 hectares and median ownership was 2.8 hectares.

63.3% of the respondents did not own grazing land. Respondents that did own grazing land owned between .3 hectare – 43 hectares; a majority of the respondents owned between .3 hectares – 1 hectare; one respondent owned 43 hectares.

91% of the respondents indicated that they did not own fallow land. The respondents that did own fallow land owned an average of 1 hectare. 47.5% of the respondents owned other forms of land; average other land ownership stood at 3 hectares.

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44 Agriculture left unseeded after plowing for a period of time in order to recover natural fertility.
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Source: IFAD
Livestock Ownership

Ethiopia has the largest livestock population in Africa. Livestock production constitutes an important sub-sector of the agricultural production activity in Ethiopia, contributing 30-35 percent of total agricultural gross domestic product (GDP) and 12%-16% of the total GDP. Livestock are also extremely important because of the dependence by a large proportion of the population and the existence of a wide range of livestock species and their enormous population.45

From an economic point of view, cattle are the most important of all livestock, although sheep, goats and camels make significant contributions in the economy of the country and the diet of the population. Cattle are kept by all farmers. According to the 2009 Central Statistic Authority (CSA) sample census the total number of cattle in the Oromiya region was estimated to be 22.45MM. 46

Livestock ownership is one of the most critical forms of physical assets for smallholder farmers as they serve multiple purposes including; a source of food (more specifically protein for human diets), employment and possible foreign exchange. For smallholder farmers, livestock can provide a source of wealth accumulation; provide draught power and organic fertilizer; and serve as a means of transport; hedges against crop failure; and acts as a source of cash to cover major incidental

46 The cattle are almost exclusively of indigenous zebu type. They are well adapted to the environment having undergone a long process of natural selection. They are generally small in frame and short horned with a medium to large thoracic hump. It can be generally concluded that the breeding performance of the indigenous cattle is low. This is attributed to both genetics and to the high incidence of infertility resulting from various causes related to nutrition and disease. Source: Ethiopian Livestock Master Plan Study
Increased livestock ownership reduces vulnerability by enhancing risk management options. Livestock can be sold or drawn down to meet an immediate need. Livestock can also enhance the credit worthiness of a household, thereby improving their ability to borrow during a crisis; furthermore, a larger more diversified livestock base can reduce covariant risks.

Reduced livestock ownership conversely increases levels of vulnerability; the analysis will prove that situations required respondents to sell their livestock as a desperate coping mechanism to resolve significant risks that placed immense financial pressure on households. Varying coping mechanisms are exhibited by households such as borrowing from friends/relatives, obtaining credit, drawing down on savings, or modifying consumption. However, the latter mechanisms are not always available in the event of a recurring crisis. The timing of such an event can sometimes require low-income households to take desperate action (sell livestock). Such a significant asset reduction could result in contributing to the vicious cycle of poverty. If we are able to appropriately downsize formal insurance schemes we may be able to transfer some of the covariant risks smallholder livestock farmers face.

Plans to develop livestock indemnity insurance products make this section of the analysis significant. Although our emphasis lies on ox and cow ownership we took the opportunity to examine the full range of livestock that respondents could possess. The results revealed divergent livestock ownership; particularly ox ownership. Outliers were classified as frequencies of one (1) or more response, whereas respondents indicated a specific ownership amount that was excessive. The latter responses were considered invalid and excluded from the overall analysis but noted as such where applicable.

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Ox Ownership

All cultivation in Ethiopia is primarily carried out by oxen pulling the traditional plough (*maresha*) and farmers often use cows to reproduce replacement oxen. Surveys carried out by the International Livestock Research Institute (ILRI) have shown that the number of oxen owned by a farmer strongly influences both the area cultivated and the cropping patterns employed. To ensure timely cultivation, farmers with less draught power cultivate smaller areas and sow early. The choice of crops is also influenced by the availability of draught power. Land preparation for cereal crops is more labour-intensive than preparation for pulses, for example, and therefore require more draught power. Cereals fetch higher prices than pulses, which explain why farmers with less draught power have lower income.48

84.2% of the respondents’ owned oxen and 15.8% of the respondents’ reported that they did not own oxen. Ox ownership ranged between one (1) and six-thousand (6,000) oxen (The individual who owns 6,000 oxen was an outlier). However, when we exclude outliers the range dramatically falls between two (2) and three-hundred (300) oxen – with two respondents’ reporting ownership of two-hundred oxen and three reporting ownership of three-hundred oxen.

Average ox ownership stood at thirty-seven (37) oxen overall. If we exclude the two-hundred and three-hundred ownership respondents the average falls to four (4) oxen; which is appealing as our target group are smallholder farmers and not small or medium scale commercial farmers. 29% of the respondents own two (2) livestock, 24% owned sixteen (16), and 21% own fourteen (14). 3% of the respondents own eight oxen and two-hundred oxen respectively and 4% own three-hundred (300) oxen.

Ox Usage

70.3% of the respondents utilized their oxen for farming. 27.7% of the respondents indicated that their oxen are used for fattening and 1% reported that their oxen are used for transportation.

Cow Ownership

81.7% of the respondents’ own cows and 18.3% of the respondents’ reported that they did not own a cow. Cow ownership ranged between one (1) and forty-five (45) heads. Average cow ownership

was 12.9 heads. Median ownership stood at nine (9) heads. The highest reported ownership frequency was two (2) cows (27.6% of respondents) followed by one cow (16.3% of the respondents).

**Cow Usage**
An overwhelming 88.8% of the respondents used their cows for dairy milk production, while only 2% of the respondents’ reported using their cows for livestock fattening purposes. 3% reported that their cows are used for farming and 1% of the respondents indicated that cows were used for transportation, loading, and food consumption respectively.

**Sheep Ownership**
Sheep require minimum inputs and provide investment and security in times of need. 43% of the respondents’ own sheep and 56.7% of the respondents’ reported that they own sheep. Sheep ownership ranged between two (2) to two-thousand-four-hundred (2,400) sheep. The outliers included the following ownership amounts; one-hundred-forty-one (141), four-hundred-forty (440), and two-thousand-four-hundred (2,400) respectively. Excluding the latter outliers average sheep ownership stood at 12 sheep. The most frequent ownership amounts were four (4) and ten (10) sheep respectively.

**Sheep Usage**
40.4% of the respondents that own sheep indicated that they use them for reproduction purposes; correspondingly 23% of the respondents use sheep for trade purposes. 19.2% of the respondents use sheep for livestock fattening and 17.3% use their sheep for food consumption.

**Goat Ownership**
Similar to sheep, goats require minimum inputs and provide investment and security in times of need. Goat ownership was much higher than sheep with 80.8% of the respondents indicating goat ownership (versus a sheep ownership by 43% of respondents). Goat ownership ranged between two (2) to one-thousand-two-hundred goats (1,200). The outlier was one-thousand-two-hundred 1,200. Excluding the outlier the ownership range becomes two (2) to fifty-five (55) goats with an average ownership of 14 goats. 26.1% of the respondents that reported ownership own ten (10) goats, 17.4% own four (4), and 8.7% own eight (8) goats.

**Goat Usage**
56.5% of the respondents indicated that goats are used for trade; correspondingly 30.4% of the respondents indicated that goats are used for reproduction purposes. 8.7% of the respondents use goats for consumption and 4.3% utilize goats for livestock fattening.

**Donkey, Horse, Mule and Chicken Ownership and Usage**
54% of the respondents reported donkey ownership – donkey ownership ranged between one (1) and twenty-one and averaged 4.9 donkeys per household which are extensively used for transport/loading agricultural inputs and farm produce. 6.7% of respondents owned an average of 2 horses which are chiefly used for transportation. Mule ownership was negligible whereas only 1.7% of the respondents claimed ownership - average mule ownership per household was one (1). 47.5%
of respondents reported chicken ownership. Average chicken ownership per household was sixteen (16) (excluding the outlier of 200 chickens). Chicken utilization was distributed evenly as follows: food (33.3%), trade (33.3%) and reproduction (31.5%).
<table>
<thead>
<tr>
<th>Livestock Type</th>
<th>% of Respondents Claiming Ownership</th>
<th>Average Livestock Ownership Per Respondent</th>
<th>Livestock Usage by Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ox</td>
<td>84%</td>
<td>4 Oxen</td>
<td>-Farming (70%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-Fattening (28%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-Transportation (1%)</td>
</tr>
<tr>
<td>Cow</td>
<td>82%</td>
<td>7 Cattle</td>
<td>-Dairy Milk Production (89%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-Livestock Fattening (2%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Farming (2%)</td>
</tr>
<tr>
<td>Sheep</td>
<td>43%</td>
<td>12 Sheep</td>
<td>-Reproduction (40%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-Trade (23%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-Livestock Fattening (19%)</td>
</tr>
<tr>
<td>Goat</td>
<td>81%</td>
<td>14 Goats</td>
<td>-Trade (57%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-Reproduction (30%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-Consumption (9%)</td>
</tr>
<tr>
<td>Donkey</td>
<td>54%</td>
<td>5 Donkeys</td>
<td>-Loading (91%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-Transportation (9%)</td>
</tr>
<tr>
<td>Horse</td>
<td>7%</td>
<td>2 Horses</td>
<td>-Transportation (100%)</td>
</tr>
<tr>
<td>Mule</td>
<td>2%</td>
<td>1 Mule</td>
<td>-Transportation (100%)</td>
</tr>
<tr>
<td>Chicken</td>
<td>4*%</td>
<td>16 Chickens</td>
<td>-Food (33%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-Trade (33%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-Reproduction (32%)</td>
</tr>
</tbody>
</table>
Savings
Low-income households that build assets through savings are less vulnerable to economic shocks and stress events. Despite the limitations that low-income households face, in reference to maintaining savings, 71.1% of the respondents report that someone in their households saves and 84.8% indicated that they save voluntarily. The latter findings are assuring; as savings is a vital risk management strategy that permits households to withstand economic shocks and unpredictable crisis.

The savings frequency was highest at monthly intervals (47.6%) followed by weekly (28.6%) and yearly (10.7%) modes respectively. The high monthly and weekly modes of savings suggest steady income flows and reflects the understanding of the need to develop risk aversion strategies.

Many researchers are reconsidering the view that low-income households do not have the willingness or capacity to save. Banks, microfinance institutions and cooperatives are increasingly aware of the benefits of mobilizing savings (saving mobilization benefits flow to both institutions and clients) and have ramped up mobilization efforts. However, research continues to reveal high levels of demand for savings. This possibly contributes to the propensity of
households to maintain Iqqub;\textsuperscript{49} which provide households with services particularly suited to the needs of the participants and the flexibility and adaptability to various situations and needs.\textsuperscript{50} Nevertheless, 29% of the respondents indicated that they do not save and an overwhelming amount of those that do not save (60%) indicated that they do not because they “do not have enough money to save.” What’s promising is that 8.6% of the respondents that do not save reported that they are “working on it.”

**Informal Savings (Iqqub)**

24.4% of the respondents that save reported utilizing Iqqub services to save money and 10.5% utilize Iqqub in combination with other modes such as banks, and cash saved at home and 16.3% of the respondents reported that they saved solely in cash; indicating an opportunity for banks, microfinance institutions and financial cooperatives to enhance outreach efforts and capture this potential market.

![Mode of Saving](image)

**Semi-Formal Savings (Cooperatives/Unions)**

Surprisingly, merely 8.3% of the respondents saved at cooperatives / unions and respondents seemed to prefer the use of Oromiya Cooperative Bank. The low amount of savings at cooperatives may signal that a majority of cooperatives are not financial cooperatives but

\textsuperscript{49}Iqqub is a traditional social organization in which members come together for the purpose of saving in cash or in kind. The normal practice is that members contribute money or materials on a regular period of time and lots are drawn so that the one who wins the chance gets the total sum. This process continues at a regular period until the last member receives their share or what they have been savings through the months and the whole process starts again. For further details see: Emana B.; Gemtessa, K; Lemessa, D; Ayele, G. (2005). Informal Finance in Ethiopia. Occasional Paper No. 12. AEMFI: Addis Ababa.

\textsuperscript{50}Ibid.
rather provide business development and support services; which is reflected in the fact that 75.8% of the respondents reported that they utilize cooperatives / unions.

**Formal Savings (Banks / Microfinance Institutions)**

An overwhelming proportion of the respondents’ (46.7%) maintain bank accounts at and 84.8% of those respondents reported that they voluntarily save money in their bank account. The preference for banks amongst respondents who have bank accounts is Commercial Bank of Ethiopia (17.5%).

Only 7% of the respondents that save capital do so at microfinance institutions; this is quite surprising considering the size and outreach of the Oromiya regional microfinance institution (OCSSCO has over 365 thousand clients with an outstanding loan portfolio of approximately Birr 835MM\(^{51}\)). On the other hand 36.7% of the respondents indicate that their household utilizes microfinance services; suggesting that MFIs are a relatively important source of investment capital and respondents are not fully utilizing MFIs to accumulate savings..

**Of the respondents that do not maintain a bank account:**

- 25.8% indicated that they did not have enough money to save;
- 19.4% indicated that they didn’t have adequate Capital to save and claimed that there are an inadequate amount banks within their proximity;

\(^{51}\) Data as of March 2010: Source AEMFI
8.7% indicated that they do not have access to banking facilities;
6.4% indicated that they have not been provided sufficient information about saving Capital at banks;
6.4% of the respondents indicated that they do not have the practice/habit to save.

The latter two findings suggest a need to build the knowledge and understanding of not only savings but general financial literacy.

**Borrowing**

Despite the large percentage of respondents that maintain bank accounts only 11.7% of the respondents received credit from a bank in the last three years. This suggests that credit requirements by banks may inhibit low-income households from accessing credit. This is ironic considering that the findings show that 46.7% of the respondents are saving their money with banks and 52.5% of the respondents indicated that they use banks for their activities.

Access to credit may indeed be difficult as 32.5% of the respondents reported that they have not accessed credit in the last three years. A majority of respondents that have access to credit borrow from microfinance institutions (22.5%) however, only 7% of the respondents save capitals at microfinance institution; this may suggest that respondents have greater trust in banks insofar as they feel that their capitals are adequately safeguarded.

10.8% of the respondents that accessed credit in the last three years obtained capitals from saving and credit cooperatives, while 10% received credit from relatives and friends. 12.5% received credit from an unspecific source; which is probably an indication of accessing capital from the informal market. 75% of the respondents indicated that they only have one (1) outstanding loan suggesting that households are not over indebted. Interest rates on loans were relatively moderate, ranging between 0%-20% and averaged 6.6%.
Risks
Smallholder farmers are certainly aware of their vulnerability to risks and can articulate those risks and the impact those risks have on their livelihood. How individuals respond to those risks, both formally and informally, will provide insight into the proper development and application of appropriate insurance products that address the needs and concerns of low-income households. A list of potential areas of vulnerability was derived from preliminary discussions with key stakeholders of livestock cooperatives / unions. The risks were identified to the respondents in order to aggregate the frequency by which specific risks occur and to measure the impact of each risk in so far as the financial pressure it placed on individual households.

The results of the study indicate that management strategies among poor households are usually inadequate, inflexible, and often deplete households of assets such as savings, consumer durables and consumption items. We therefore reviewed household coping mechanisms and analyzed the associated costs. In addition, we attempted to have the farmers’ articulate risk mitigating options against specific risk perils in the event of the reoccurrence.

Livestock Disease
Livestock disease can be a major constraint to livestock and crop production across Ethiopia. Various diseases have the potential to debilitate, maim and even kill livestock which contribute to reduced income and increased household vulnerability. The availability of veterinary services permits farmers to purchase and apply applicable drugs when needed. The proximity of animal health systems in relation to farming communities is certainly crucial to crop production and animal husbandry.

According to the FAO, the livestock disease and parasite situation in the country are well understood, and control and treatment methods are sufficiently known and established throughout the country. The livestock diseases that are commonly encountered and are of economic importance to production are foot and mouth disease, CBPP, anaplasmosis, enterotoximia, lumpy-skin disease, and Hemorrhagic septicemis. Other diseases, such as Black-leg and Anthrax, also occur sporadically. Rinderpest is one disease that has seemingly been effectively controlled. Intestinal worm-infections causing great production-losses from morbidity (e.g., Tape worm), as well as
mortality, are also important problems. Ticks are, however, the main livestock health hazards as they are common in the highlands and the major vectors of many of the epidemic diseases.\textsuperscript{52}

According to an FAO brief, the incidences of some of these economically-important diseases have been increasing from year to year due to inadequate veterinary services. For example, the reported CBPP increased from 777 cases in 1996 to 1,648 cases in 1998, and to 1,595 in 2001. Similarly, foot to mouth disease increased from 888 cases in 1996, to 14,192 cases in 1998, and to 12,579 cases in 2000. The incidence of lumpy-skin disease increased from 4,210 in 1996 to 9,209 cases in 1998, and to 10,298 in 2000.\textsuperscript{53}

85.8\% of the respondents indicated that their livestock were affected by livestock disease. Respondents were asked to rank the three most common livestock diseases. The most prevalent livestock diseases by frequency of occurrence were black leg, foot and mouth disease and anthrax.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{common_livestock_diseases.png}
\caption{Common Livestock Diseases (Respondents' Ranking)}
\end{figure}

\textsuperscript{52} FAO – Livestock Sector Brief. (2003).
\textsuperscript{53} FAO – Livestock Sector Brief. (2003).
A vast majority of respondents utilized medical treatment from a local veterinarian health center when outbreaks of livestock disease occur; other coping mechanisms included cutting off the foot of the livestock; cleaning of the feed bath; local cultural treatment; and no coping mechanism; and one respondent resorted to destocking his livestock.

Respondents were asked if livestock disease occurred in the last three years. 75.8% of the respondents indicated that livestock disease has occurred within the indicated time period. Incidences of livestock disease occur only once every three years for 42%. The median frequency for the incident is 6 times in a three year period; however the frequency of livestock disease was 1-4 times for 83.6% of the respondents for the period.

The cost of livestock disease treatment ranged from Birr 90 to Birr 20,000 (an outlier of Birr 100,000 was excluded). The average cost was substantial at Birr 2,791.00 and the median cost was Birr 600. The highest cost frequency stood at Birr 1,000 (11.1% of the respondents) followed by Birr 500 (10% of the respondents). Although the incidence of livestock disease is relatively infrequent the cost appears to be substantial. Nevertheless, 28.6% of the respondents indicated that the level of stress placed on the household was small and 41.8% of the respondents indicated that the incident was “neither big nor small.” However, 16.5% of the respondents rated the incident as having a “big” or “very big” stress level on their household.

Approximately 53% of the respondents coped with the incident with their own capital which could result in households shifting assets (children’s school cost / health care expenses) to manage the incident; 23.7% of the respondents purchased medicine on credit to pay for costs associated with livestock disease; 9.3% of the respondents used “other” coping mechanism which may infer the use of informal insurance usage and 6.2% of the respondents sold animal or agricultural produce (consumable items) to smooth the vulnerability related to livestock disease.
Respondents were asked to reassess their risk management strategies related to the reoccurrence of livestock disease. 16.8% of the respondents indicated that they would obtain insurance to mitigate the risk. A surprising 45.3% indicated they would use their own capital (savings) to purchase medicine; and 25.3% indicated that they would purchase livestock medicine utilizing credit. The latter findings indicate that livestock indemnity insurance could possibly be bundled with credit to serve the needs of smallholder livestock farmers.

**Livestock Death**

Investing in animal health programs has significant advantages of preventing the spread of livestock death, and therefore reducing further livestock deaths. If programs are started and maintained at the community level, this can significantly improve the capacity of local communities to care for their animals – a significant advantage over the long term.54

The incident of livestock death was quite high at 61.7% however the frequency of the occurrence was low whereas 48.6% of the respondents indicated that the incident occurred merely once in the last three years and 18.9% and 10.8% reported that the incident occurred 2 and 3 times within the last three years respectively. The range of the occurrence was 1-18 times within three years and the averaged frequency of livestock death was 6 times in a three year period.

The frequency of livestock death appears relatively negligible with the upper 78% of the fatality frequencies ranging between 1-3 livestock deaths within a three year period. However, the coping mechanism cost of livestock death is substantial – ranging between Birr 15 to Birr 60,000 (outlier costs of Birr 120,000, Birr 140,000 and Birr 200,000 were excluded). The median cost related to livestock death was Birr 3,300 and the average cost was Birr 9,294. Predictably, 38.9% of the respondents indicated that the financial pressure of coping with the incident placed “very big” financial pressure on the household; 23.6% indicated the financial pressure was "neither big nor small" and 20.8% indicated that livestock placed “big” financial pressure on the household. The degree of financial pressure resulting from this event may be enough to explore the development of a livestock indemnity insurance product.

52.6% of the respondents do not have a coping mechanism for livestock death and 24.4% drew down on their savings; while 5.1% borrowed capital from their relatives/neighbors/or friends to cope with the event. 2.6% of the respondents reported that they obtained loan from a financial

54 Livestock Interventions: Important Principals for OFDA
institutions as coping mechanisms and 6.4% of the respondents either sold animal or sold agricultural produce to alleviate the risk. Another 7% of the respondents reported the use of “other” coping mechanisms which may infer the use of informal coping mechanisms.

Respondents were asked to reassess their risk management strategies related to the reoccurrence of livestock death: 19.7% of the respondents indicated that they would invest in insurance to mitigate the risk of livestock death; 34.2% said they would not devise a coping mechanism; and 34.2% of the respondents reported that they would use their own capital as a coping mechanism for livestock death if the risk occurred in the future. The latter three findings indicate that a properly positioned insurance product that is correctly priced and marketed with an aggressive information and knowledge campaign may shift peoples coping mechanisms to that of utilizing a formal insurance product.

**Accidents While Transporting Livestock**

Incidents of accidents while transporting livestock was surprisingly low at 13.3% of the total sample. The frequency of the event was 1 time within a three year time period for 37.5% of the respondents and 31.3% of the respondents reported that it occurred 2 times in the last three years. The average frequency for the incident was 5 times and the median frequency of livestock accidents occurring during transport was 6.9 times in a three year period. The maximum frequency was 20 times for one respondent over a three year period. It would be safe to assume that this particular farmer has an extraordinary amount of livestock compared to the average smallholder livestock farmer, with consideration that average ox and cattle ownership of the sample group is lower than nine (9) livestock. Despite the low frequency of accidents while transporting livestock focus group discussions revealed that farmers rank this incident as their primary risk and indeed felt that insurance uptake could appropriately respond to this risk.

26.3% of the livestock farmers that reported the occurrence of accidents while transporting livestock indicated that the financial pressure on the household created by the accident due to the associated costs pressure was “big” and 15.8% of the respondents indicated that the financial pressure was “very big.” Given the limited frequency of the occurrence is not surprising that 31.6% and 21.1% of the respondents rated the incidents’ financial pressure as “very small” and “small” respectively. On the other hand, coping mechanism costs related to livestock transportation accidents are relatively high, ranging between Birr 4,000 – Birr 60,000; the average cost was Birr 31,429.

A surprising 75% of the respondents indicated that they did not have a coping mechanism for livestock transportation accidents this may be indicative of the low frequency of the incident within a three year period. The most prominent coping mechanism (10.7%) was borrowing from relatives/friends/or neighbors.

Respondents were asked to reassess their risk management strategies related to the reoccurrence of accidents when transporting livestock: 35.7% of the respondents indicated that they would invest in insurance; 28.6% reported that they have no future coping mechanisms and 14.3% reported that they would use their own capital (savings) if the risk occurred in the future.
Livestock Milk Spoilage

Livestock milk spoilage surprisingly occurred to merely 14.2% of the respondents. The frequency of livestock milk spoilage ranged from 1-15 times over a three year period. The event occurred once (1) to 29.4% of the respondents; it occurred 10 times to 17.6% of the respondents. The average frequency for milk spillage was 16 times in a three year period.

The level of financial pressure placed on households as a result of the event was negligible. 38.9% of the respondents indicated the pressure was *neither big nor small*; and 27.8% of the respondents reported that the financial pressure was *small*. The coping mechanism cost for milk spillage ranged from Birr 0 – Birr 2,000. The average cost for milk spillage was Birr 573; the median cost was Birr 225. An overwhelming percentage of respondents did not have a coping mechanism for this event (62%); which may suggest that respondents absorb the risk as a cost of doing business. 27.6% of the respondents indicated that they utilized other coping mechanisms; while 3.4% indicated that they would borrow money from relatives/ friends or sell agricultural produce respectively.

Respondents were asked to reassess their risk management strategies related to the reoccurrence of milk spillage: 37.5% of the respondents indicated that they would utilize their own capitals; 25% of the respondents indicated that they do not require another coping mechanism; 12% of the respondents indicated that they would purchase insurance and 12% of the respondents reported that they would sell their agricultural produce.

Livestock not Producing Milk

The issue of livestock not producing milk occurred to a limited amount of respondents – 15% of the total sample. The frequency of livestock not producing milk over a three year period occurred one time to 50% of the respondents; the incident occurred three times to 22.2% of the respondents; and two times to 16.7% of the respondents for the same time period. The incident occurred fifteen times to one of the respondents – this may be due to the farmers’ large livestock ownership.

The average cost for respondents whose livestock does not produce milk is Birr 2,933.(what is the cost for? Is that the cost of the milk that was expected to be produced and sold?) 64.3% of the respondents did not have a coping mechanism for livestock not producing milk; 7.1% of the respondents used their own capital when the incident occurred; and 21.5% of the respondents sold their animals or agricultural produce to resolve the loss.

Although the occurrence of the incident is infrequent amongst the sampled group; when the incident does occur the cost is relatively high. Nevertheless, 46.2% of the respondents indicated that the level of stress the incident placed on the household was “very small” and 38.5% of the respondents indicated that the level of stress placed on the household was “neither big nor small.”
Respondents were asked to reassess their risk management strategies related to the reoccurrence of livestock not producing milk: 16.7% indicated that they would invest in insurance; 27.8% of the respondents indicated that they would not have a coping mechanism; 27.8% of indicated that they would utilize their own capital if the risk occurred in the future.

**Livestock Reproduction Problems**

Cattle production has been considered as the main component of agricultural development in Ethiopia as well as in most parts of Sub-Saharan Africa. The overall cost of keeping cattle in terms of costs associated with health care, nutrition and management, however, has not matched to their contribution to the livelihood and the economics of the people in the region... livestock productivity is low due to various constraints such as disease, nutrition, poor management and poor reproductive performance of indigenous breeds.

It has been indicated that reproductive problems result in considerable economic losses to the diary industry and are the main causes of poor productive performance of smallholder dairy farms (Roberts, 1986; Bekana et al., 1994a, 1997). Among the major problems that have a direct impact on reproductive performance of dairy cows, RFM and the subsequent endometritis and pyometra have been reported to be the most common clinical and economic problems (Frederickson et al., 1985; Ijaz et al., 1987; Bekana et al., 1994a, 1994b, 1997). These have been implicated to cause a considerable economic loss to the dairy industry due to slower uterine involution, reduced reproductive rate, prolonged inter-conception period and calving interval, high cost of medication, drop in milk production, reduced calf crop and early depreciation of potentially useful cows (Borsberry and Dobson, 1989). It has also been shown that low reproductive efficiency hinders genetic improvement in zebu (Bos indicus) cattle and causes direct economic losses (Mukasa-Mugerwa et al., 1991).

In Ethiopia, dairy cattle are maintained under different production systems (ILCA, 1994; Shiferaw et al., 2003). The differences in management (production) systems and environmental conditions under which cattle are maintained could greatly affect the occurrence of reproductive health

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56 ICLA. (1988).

57 Gizaw, Y; Bekana, M; Abayney, T. (2007).
Livestock reproduction problems occurred to merely 10% of the sample group and the frequency of the event was minimal; whereas 66.7% of the respondents experienced the event once in a three year period; the event occurred twice during same period for the remaining respondents.

When asked to evaluate the level of financial stress placed on the household due to the event 46% of the respondents indicated that it was very small and 23% indicated it was small and neither big nor small respectively.

The coping mechanism cost for livestock reproduction problems varied from Birr 0 to Birr 10,000; the average cost stood at Birr 2,189. 25% of the respondents indicated that there was zero cost associated with the event, which may indicate that the problem was unresolvable. Surprisingly, 48% of the respondents did not have a coping mechanism; 16% of the respondents used their own capitals and 20% of the respondents reported using “other” coping mechanisms; most likely an informal coping strategies.

Respondents were asked to reassess their risk management strategies related to the reoccurrence of livestock not producing milk: 26.7% of the respondents indicated that they would not take any coping action; 20% indicated that they would use their own capital; 13.3% reported that they would obtain credit to purchase medicine and 13% reported that they would purchase insurance; 13.3 indicated that they would sell their animals; while 13.3% of the respondents indicated that they would not need to use another coping mechanism.

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58 Gizaw, Y; Bekana, M; Abayney, T. (2007). The research carried out in this study (in the Oromiya region) found that of a total of 403 dairy cows included in this study, 31.76% (n=128) were affected with one or more reproductive health problems. The prevalence rate of clinical reproductive problems of smallholder dairy cows in and around Nazareth (town within Oromiya region) Endometritis, RFM, repeat breeder, and dystocia were found to be the major reproductive health problems accounting 16.63%, 12.91%, 8.91% and 6.95%, respectively. Other reproductive health problems observed with lower frequency included abortion (2.2%), anoestrus (1.48%) and prolapses (1.24%) were minor clinical reproduction problems observed in smallholder farmers. The prevalence of clinical reproductive problems showed significant differences (P<0.05) with respect to breed, parity, production system and body condition (nutritional status) of dairy cows. This particular study indicated clinical reproductive problems, which included endometritis, RFM, repeat breeding and dystocia were one of the major factors responsible for the low reproductive performance of smallholder dairy cows in and around Nazareth town, Central Ethiopia.
Livestock Theft
Livestock theft weighs heavily in the investment decisions of livestock owners; it is not worth investing in quality animals if they are likely to be stolen. Livestock raiding is not typical in the Oromiya region, but rather in the pastoralist areas of Ethiopia such as the South Omo Zone.

Livestock theft occurred to merely 5.8% (7) of the sampled respondents over the last three years. The incident occurred once to 57.1% of the respondents in a three year period. The average frequency of livestock theft was 3.5 times – the incident occurred 6 times to one respondent. 73.7% of the respondents indicated that they did not have a coping mechanism for livestock theft; 21.1% of the respondents indicated that they used “other” coping mechanisms.

The cost of the coping mechanism for livestock theft ranged from Birr 300 – Birr 20,000. The dramatic variance in cost may relate to amount of livestock stolen. The financial pressure placed upon the households of 55.6% of the respondents was “very big” and 22.2% of the respondents reported that the incident placed “big” financial pressure on the household.

Respondents were asked to reassess their risk management strategies related to the reoccurrence of livestock theft: 30% of the respondents indicated that they would invest in insurance; 50% of the respondents indicated that they would use their own capital as a management strategy; and 20% of the respondents indicated that they would have no coping mechanism if the risk occurred in the future.

Livestock Fodder Problems
Feed scarcity is a major constraint in livestock production. A feed shortage of 35% is common in a given year. It increases up to 70% in the bad years (prolonged dry periods.) The problem appears more severe in mixed farming systems as every piece of available land is not put under cropping. There is huge potential for improving livestock feed supply upon successful integration and development of the forage species in the farming system. But these technologies are not widely distributed and used by livestock keepers in the country. Promotion of improved forages is not properly addressed in the formal extension system in all regions as

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Livestock in the New Millennium: The Management and Mitigation of Vulnerability. See: http://www.FAO.org.DOCREP/005/Y2647e/y2647e07.htm
witnessed by the absence of a clearly defined plan for feed development… there is limited knowledge on available options and potentials for optimizing feed production and utilization in the farming system.\textsuperscript{60}

In the table above it is observed that green feed is most prevalent in the Oromiya region. However, a close examination of this data, together with the fact that the use of improved forage is minimal, the most likely green fodder being used is not planted fodder but natural, green grass, cut and collected from fields during the rainy season. There are a few farmers who systematically strip their growing crops to feed to their stock. Green crops, (whole), are also fed to stock at times when rains fail and there is no hope of gathering crop yields. Maize and sorghum are thinned during the first weeding and they are also fed to stock.\textsuperscript{61}

Livestock fodder problems occurred to 49.2\% of the sampled respondents. The frequency of the event occurring in a three year period was 3 times for 60\% of the respondents; and the incident occurred 1 time to 23.6\% of the respondents within the same period. Coping mechanism costs related to livestock fodder problems were substantial and ranged from Birr 300 – Birr 100,000. The average cost was Birr 8,277 and the median cost associated with fodder coping mechanisms was Birr 2,000. 66.7\% of the respondents used their own capitals to cope with the event and 14.9\% of the respondents reported that they sold their animals or sold agricultural produce.

Respondents were asked to reassess their risk management strategies related to the reoccurrence of livestock fodder problems: 16\% of the respondents indicated that they would purchase insurance; 64.3\% indicated that they would utilize their own capital if the incident reoccurred; 7.2\% of the respondents reported that they would sell their animals or sold agricultural produce; and 5.4\% of the respondents indicated that they have no need to utilize another coping mechanism if the risk occurred in the future.

**Adverse Market Price for Livestock**

Traditional livestock market risk structures assured that there would be a relatively homogeneous and accessible open market for their product. However, the existence of various risks such as market concentration, limited market outlets and exposure to drought or famine increases levels of vulnerability. Livestock producers tend to market their livestock in discreet intervals, placing a year’s

\textsuperscript{60}Strategies for scaling out for technologies to support intensification of small holder livestock production (Seyoum Bediye – Livestock Research \textit{ELAR}).

\textsuperscript{61}Ethiopian Livestock Master Plan Study (2007). GRM International: \textit{Addis Ababa}.
revenue in a single livestock yield. Livestock dairy marketing tends to be spread continuously over time resulting in long-run average prices. Adverse market prices in either case can increase household vulnerability levels dramatically.

Adverse market prices occurred to 48.3% of the sampled respondents. The frequency of the event occurred 3 times to 40% of the respondents; 2 times by 25.9% of the respondents and 1 time to 20.4% and 20 times by 1.9% of the respondents over the last three years. Coping mechanism costs related to adverse market prices were significant and ranged from Birr 0 – Birr 500,000; average coping mechanism cost was Birr 64,581; and the median coping mechanism cost was Birr 3,000.

The amount of the coping mechanism cost related to adverse market prices were evenly distributed throughout the price range (Birr 0 – Birr 30,000) at 2.8%; however, 11% of the responds paid a coping cost of Birr 100,000; 8.3% paid a coping cost of Birr 500; 5.6% paid a coping cost of Birr 300,000; Birr 500,000; Birr 600; and Birr 300 respectively.

It’s significant to note that 11.1% of the respondents coping mechanism was Birr 0, suggesting no risk management strategy was applied to absorb the risk. Consequently, 50% of the respondents reported that that had no coping mechanism for adverse market prices which may indicate that the related cost were to significant to develop a feasible coping strategy or that access to available strategies were limited. 7.3% of the respondents reported that they sold their animals or sold agricultural produce as a coping mechanism. The severity of this event is shown by the fact that 20.6% of the respondents indicated that they sought other means as a mechanism to cope with the event which may imply that respondents utilized informal methods/markets to cope with adverse market prices.

Respondents were asked to reassess their risk management strategies related to the reoccurrence of adverse market prices: 16% of the respondents indicated that they would invest in insurance; 29.1% of the respondents reported that they would not have a coping action; and 23.6% of the respondents indicated that they would reduce consumption if the risk occurred in the future.

**Drought**

Slow onset disasters may recur yearly, and can often be predicted on the basis of climate shifts. Drought and ensuing famine are perhaps the most serious threats to livestock holding worldwide. Animal mortalities from malnutrition increase because fodder is insufficient or inappropriate.
Endemic diseases increase when herds mix at watering points and weakened animals have a low resistance. Livestock losses can be enormous. For example, in 2000, a drought in the Horn of Africa led to the deaths of more than 90% of the cattle in many regions, causing extensive suffering and a widespread need for food and other life-sustaining interventions.62

Droughts occurred to 15.8% of the sampled respondents. The frequency of the event occurred 1 time to 57.9% of the respondents; 2 times by 26.3% of the respondents and 3 times to 10.5% of the respondents over the last three years.

Other Risks
Respondents were given the chance to identify other risks related to livestock farming in an open question format to ensure that we captured all relevant risks. Only 3% of the respondents (3 respondents) indicated the existence of other risks; the costs of the risks were significant at Birr 15,000 and Birr 66,000 respectively. The financial pressure placed on the households due to the other risks were very small, neither big nor small, and very big respectively. Surprisingly the respondents indicated that they had not devised a coping mechanism for the other risks.

Respondents were asked to reassess their risk management strategies related to the reoccurrence of other risks: 28.6% of the respondents indicated that they would invest in insurance; 42.9% of the respondents reported that they would not have a coping action; and 28.6% of the respondents indicated that they would use their own capital if the risk occurred in the future.

<table>
<thead>
<tr>
<th>Risk Type</th>
<th>% Reporting Risk</th>
<th>Cost</th>
<th>Financial Pressure on Household</th>
<th>Coping Mechanism</th>
<th>Reassessment of Coping Mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livestock Disease</td>
<td>86%</td>
<td>Birr 2,791</td>
<td>-Small (38%)</td>
<td>-Utilize own capitals (53%)</td>
<td>-Secure medicine w/credit (25%)</td>
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<td></td>
<td></td>
<td>($208)</td>
<td>-Neither Big/Small (33%)</td>
<td>-Secure medicine w/credit (24%)</td>
<td>-Secure insurance (17%)</td>
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<td></td>
<td></td>
<td></td>
<td>-Big or Very Big (13%)</td>
<td>-Other coping mechanism</td>
<td></td>
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<tr>
<td>Livestock Death</td>
<td>62%</td>
<td>Birr 9,294</td>
<td>-Very Big (39%)</td>
<td>-No coping mechanism (53%)</td>
<td>-No coping mechanism (34%)</td>
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<td></td>
<td></td>
<td>($694)</td>
<td>-Not Big/Small (23.6%)</td>
<td>-Draw down Savings (24%)</td>
<td>-Utilize own Capitals (34%)</td>
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<td></td>
<td></td>
<td></td>
<td>-Big (21%)</td>
<td>-Used other coping mechanism (7%)</td>
<td>-Secure insurance (20%)</td>
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<tr>
<td>Accident While Transporting Livestock</td>
<td>13%</td>
<td>Birr 31,429</td>
<td>-Very Small (32%)</td>
<td>-No coping mechanism (75%)</td>
<td>-Secure insurance (36%)</td>
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<td></td>
<td></td>
<td>($2,345)</td>
<td>-Small (21%)</td>
<td>-Borrow: friend/relatives (11%)</td>
<td>-No coping mechanism (29%)</td>
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<td></td>
<td></td>
<td>-Big (26%)</td>
<td></td>
<td>-Utilize own Capitals (14%)</td>
</tr>
<tr>
<td>Livestock Milk Spillage</td>
<td>14%</td>
<td>Birr 573</td>
<td>-Neither Big/Small (39%)</td>
<td>-No coping mechanism (62%)</td>
<td>-Utilize own- Capitals (38%)</td>
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<td></td>
<td></td>
<td>($43)</td>
<td>-Small (28%)</td>
<td>-Other coping mechanism (22%)</td>
<td>-No coping mechanism (25%)</td>
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<td></td>
<td></td>
<td>-Very Small (22%)</td>
<td></td>
<td>-Secure insurance (13%)</td>
</tr>
<tr>
<td>Risk Type</td>
<td>% Reporting Risk</td>
<td>Frequency (3 year Period)</td>
<td>Cost</td>
<td>Financial Pressure on Household</td>
<td>Coping Mechanism</td>
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<tr>
<td><strong>Livestock not Producing Milk</strong></td>
<td>15%</td>
<td>3 time (23%)</td>
<td>Birr 2,933 ($219USD)</td>
<td>-Very Small (46%)</td>
<td>-No coping mechanism (64%)</td>
</tr>
<tr>
<td><strong>Livestock Reproduction Problems</strong></td>
<td>10%</td>
<td>1 time 67%</td>
<td>Birr 2,189 ($163)</td>
<td>-Very Small (46%)</td>
<td>-No coping mechanism (48%)</td>
</tr>
<tr>
<td><strong>Livestock Theft</strong></td>
<td>6%</td>
<td>4 times (average)</td>
<td>Birr 300 - Birr 20,000 ($22-$1,493USD)</td>
<td>-Very Big (56%)</td>
<td>-No coping mechanism (74%)</td>
</tr>
<tr>
<td><strong>Livestock Fodder Problem</strong></td>
<td>49%</td>
<td>3 times 60%</td>
<td>Birr 8,277 ($618)</td>
<td>-Neither Big/Small (40%)</td>
<td>-Utilize own Capital (67%)</td>
</tr>
<tr>
<td>Risk Type</td>
<td>% Reporting Risk</td>
<td>Frequency (3 year Period)</td>
<td>Cost</td>
<td>Financial Pressure on Household</td>
<td>Coping Mechanism</td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------------</td>
<td>---------------------------</td>
<td>-----------------------</td>
<td>---------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Adverse Market Price for Livestock</td>
<td>48%</td>
<td>3 times (40%)</td>
<td>Birr 0 - Birr 30,000</td>
<td>-Big (35%)</td>
<td>-No coping mechanism (50%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>($0-$2,239)</td>
<td>-Small (28%)</td>
<td>-Sought other means (21%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Very Small (22%)</td>
<td>-Sold animals or agri. produce (7%)</td>
</tr>
<tr>
<td>Drought</td>
<td>16%</td>
<td>1 time (57.9%)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Veterinary Services

According to the *Ethiopian Livestock Master Plan Study* implementation of widespread cover and proper animal-health services to a large number of farms are being hindered by two main factors:

1.) Most farmers are not able to readily access animal health services because they cannot afford to pay for proper prevention and treatment services;

2.) The government’s ability to provide services has been restricted by inadequate capitals, infrastructure, and manpower resources.

Community based approaches to animal health services have been evolving with individuals in the community who provide the services and are referred to as CAHW (Community Based Animal-Health Workers). The government is in the process of privatizing veterinary services and it is reported to have integrated the use of CAHW’s into the national animal-health delivery system. Some private veterinarians have established successful private practices. NGOs’ have helped veterinarians establish service associations which run their own drug-procurement and distribution schemes.

Access to community animal care services is vital and encourages increased efficiencies and sustainability and reduces livestock death. Research indicates that where animal health systems do not exist there is a lead time of at least six months before high livestock mortality rates are expected. Investing in animal health programs has the significant advantage of preventing the spread of disease, and therefore reducing further livestock deaths. If programs are started and maintained at the community level, this can significantly improve the capacity of local communities to care for their animals – a significant advantage over the long term.

Respondents were asked to define the radius of veterinary clinic based on defined radiuses from

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their home. 69.6% of the respondent reported that a veterinary clinic is 1km-5km from their home; indicating that health services are in a reasonably accessible proximity from respondent’s communities. This supports the finding that 87.8% of the respondents indicated that veterinary drugs are easily available.

27% of the respondents indicated that a veterinary clinic is 5km-10km from their home; and 2.6% of the respondents reported that a veterinarian clinic is 10km-15km from their home. Only one respondent reported that a veterinarian clinic is over 20km from their home. Median time required for a respondent to travel (round-trip) from their home to a veterinary clinic is 58 minutes - the median time is 35 minutes. Costs related to traveling to animal health care services were found to be negligible.
Insurance Awareness by Type

Livestock Insurance

Respondents were asked whether they have received livestock insurance in the past 10 years. The results indicated that merely 2% have received livestock insurance. 23.3% of the respondents were not aware of livestock insurance.

To gauge the perception livestock farmers have of the costs related to insurance respondents were asked, specifically, if they thought insurance was affordable for livestock farmers. An overwhelming percentage (65.8%) of the respondents indicated that, indeed, it is affordable for livestock farmers and merely 10.8% of the respondents reported that insurance is not affordable.

Respondents were asked to approximate what they thought the monthly cost of livestock insurance is. The expected monthly livestock insurance cost ranged from Birr 2 to Birr 6,000; the average expected cost was Birr 712 and the median cost was Birr 50. The largest percentage of respondents approximated the price at Birr 100 per month.

Respondents were finally asked if they thought insurance was hard to understand. 55.8% of the respondents indicated that insurance is not hard to understand; 35% reported that insurance is hard to understand and 9.2% indicated that they were didn’t know if it was hard to understand.
Crop Insurance
4.2% of the respondents or respondents’ household member purchased crop insurance in the past 10 years; 10.8% of the respondents were not aware of crop insurance and 60.5% of the respondents indicated that they do not prefer to invest in crop insurance in the future – 39.5% of the respondents would prefer crop insurance in the future.

Health Insurance
Access to adequate health services is a prerequisite for health insurance – in rural setting this could be an issue. Those without health insurance rely on available cash flow, savings or informal group-based mechanisms to manage health risks. However, such risk strategy is not sustainable if multiple crises occur over a given time period.

None of the respondents or respondents’ household member has invested in health insurance in the past 10 years; 84% of the respondents were not aware of health insurance; and 70% of the respondents indicated that they do not prefer to invest in health insurance in the future – 23% of the respondents would prefer health insurance in the future.

Disability Insurance
Disability insurance is a significant safeguard particularly for households that have only one income earner. None of the respondents or respondents’ household member has invested in disability insurance in the past 10 years; 95.8% of the respondents were not aware of disability insurance; and 93% of the respondents indicated that they do not prefer to invest in disability insurance in the future – 6% of the respondents would prefer disability insurance in the future.

Death Insurance
Death of a household member may have a substantial impact of the family on different levels including psychological, social and financial. Many households in Ethiopia have adopted informal death insurance such as Iddir. It is a traditional organization, composed of friends, relatives and neighbors living in the same district who regularly contribute savings to provide financial and material assistance to households in times of mourning.

2% of the respondents or respondents’ household member have invested in death insurance in the past 10 years; 60.8% of the respondents were not aware of disability insurance; and 76.7% of the respondents would prefer disability insurance in the future.

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66 In recent years Nyala Insurance Co. has provided two types of crop insurance: multiple-peril crop insurance and index-based insurance.
respondents indicated that they do not prefer to invest in death insurance in the future – 23% of the respondents would prefer death insurance in the future.

**Property Insurance**
4.2% the respondents or respondents’ household member have invested in property such as automobile insurance in the past 10 years; 60% of the respondents were not aware of property insurance; and 71.7% of the respondents indicated that they do not prefer to invest in property insurance in the future – 28.3% of the respondents would prefer property insurance in the future.

**Car Insurance**
4.2% the respondents or respondents’ household member have invested in car insurance in the past 10 years; 50% of the respondents were not aware of car insurance; and 82.5% of the respondents indicated that they do not prefer to invest in car insurance in the future – 17.5% of the respondents would prefer car insurance in the future.

**Obligatory Insurance Policies**
None the respondents or respondents’ household member have invested in obligatory insurance in the past 10 years; none of the respondents are aware of obligatory insurance; and 99.2% of the respondents indicated that they do not prefer to invest in obligatory insurance in the future. Despite the lack of knowledge related to obligatory insurance 8% of the respondents indicated that they would prefer obligatory insurance in the future.

**Insurance Uptake**
AEMFI attempted to identify why respondents did not uptake insurance; respondents were therefore asked, if they did not invest in insurance, why not? They were asked to provide two different reasons. The results were surprising.

**Reason 1:**
21.6% of the respondents reported that they do not know what insurance is. 60.3% of the respondents indicated that the insurance that they require is unavailable and 3.4% of the respondents indicated that they did not know where insurance was available; this implies a degree of interest in insurance products that respond to the needs and concerns of low-income households.

Merely 9% of the respondents indicated that the following reasons for not up-taking insurance respectively: 4.7% of the respondents indicated that
insurance is too expensive and 9.5% of the respondents did not specify why they did not uptake insurance.
The following are the second rankings for not investing in insurance:

**Reason 2:**

34% of the respondents indicated that insurance is too expensive; 21.7% of the respondents reported that they were unaware of where insurance is available. 17.4% of the respondents indicated that the insurance they required is unavailable and 8.7% of the respondents indicated that insurance providers are far from their home.

8.7% of the respondents indicated that they do not require insurance because they have limited risks; and 4.3% of the respondents indicated that they could manage their risks themselves.

4.3% of the respondents indicated that *insurance companies do not pay.*

**Awareness of Insurance Companies**

Respondents were asked to list the Ethiopian insurance companies they were aware of - respondents were not provided a list of firms – the results are seen below:

<table>
<thead>
<tr>
<th>Insurance Company</th>
<th>Aware</th>
<th>Unaware</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethiopian Insurance Company</td>
<td>67.5</td>
<td>32.5</td>
</tr>
<tr>
<td>Awash Insurance Company</td>
<td>30.8</td>
<td>69.2</td>
</tr>
<tr>
<td>Nyala Insurance Company</td>
<td>30.8</td>
<td>69.2</td>
</tr>
<tr>
<td>Oromiya Insurance Company</td>
<td>21.7</td>
<td>78.3</td>
</tr>
<tr>
<td>NIB Insurance Company</td>
<td>15.0</td>
<td>85.0</td>
</tr>
<tr>
<td>Nile Insurance Company</td>
<td>14.2</td>
<td>85.8</td>
</tr>
<tr>
<td>United Insurance Company</td>
<td>10.8</td>
<td>89.2</td>
</tr>
<tr>
<td>Africa Insurance Company</td>
<td>10.8</td>
<td>89.2</td>
</tr>
<tr>
<td>National Insurance Company</td>
<td>8.3</td>
<td>91.7</td>
</tr>
<tr>
<td>Global Insurance Company</td>
<td>6.7</td>
<td>93.3</td>
</tr>
</tbody>
</table>
Awareness was highest for Ethiopia Insurance Company, Awash and Nyla. The lowest awareness level of insurance firms was amongst Ethio Life, Global and National.

Micro-Insurance Case Studies

Case Study 1

Providing Weather Index and Indemnity Insurance in Ethiopia

Nyala Insurance S.C. is one of the leading private insurance companies in Ethiopia and provides a range of products, including both life insurance and general insurance. To help farmers protect themselves against droughts that significantly reduce crop yields, Nyala recently introduced crop insurance products.

Different products for different farmers

In recent years Nyala has provided two types of crop insurance: multiple-peril crop insurance (MPCI) and index-based weather insurance, each designed to meet the needs of different farmers. Nyala’s MPCI is a double-trigger scheme that insures farmers against a number of different shocks—both natural and human caused—that affect crop yields, including shortages of rainfall, excess rainfall, fire, and transit risks. Because MPCI insures against a number of perils, it is better suited to farmers who face a number of sources of risk to crop yields than it is to farmers whose predominant source of risk is rainfall variability. Nyala thus targets this product to farmers located in areas with reasonable rainfall.

The product uses an innovative double-trigger design to determine when payouts need to be made against insured perils, mainly weather. The first trigger is the recording of unusual rainfall levels at a local weather station. When this happens, Nyala sends a team to assess the yields (through crop cutting) of model farmers who have been preselected as a benchmark based on criteria agreed upon by agricultural experts from Nyala, the Ministry of Agriculture, cooperative unions, and the insured farmers. This assessment is the second trigger. Based on this assessment result, a payout is made to

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67 Case Study authored by: Eyob Meherette
all farmers who suffered a shortfall from the pre-agreed-upon long term average yield. Losses from localized risks such as fire and hail are more costly to assess because they involve individual visits at the farm level. Because this product involves farm-level assessments for some risks, it is costly to administer and more suitable for those with larger farms than for smallholders. It therefore tends to be purchased by farmers who are involved in seed multiplication.

In 2008 and 2009, 947 pilot farmers in two cooperative unions (Lume-Adama and Yerer) spanning four woredas (districts) were insured for teff, wheat, lentil, haricot beans, and chickpeas under MPCI contracts. Total membership in these unions is 47,000.

Nyala’s index-based drought insurance product, on the other hand, is more suitable for smallholder farmers in more drought-prone areas. Index-based insurance products have been introduced in recent years as a way to avoid some of the drawbacks of traditional insurance mechanisms. Rather than paying out as an indemnity when a crop fails—an approach that requires detailed data on an individual farmer’s productivity as well as ex post verification of losses—an index-based insurance product simply uses a measure such as rainfall, temperature, or soil moisture to insure against drought or other covariant shocks. This approach reduces transaction costs, making insurance more affordable and accessible for smallholder farmers. The conditions represented in the index may not, however, reflect the farmers’ actual crop loss. To keep this remaining risk, known as basis risk, as low as possible, it is important that farmers are located near weather stations—no farther than 20 kilometers, depending on terrain in the area.

The weather index product is designed around particular crops. For each crop, the main growing season is split into three phases: an initial phase corresponding to the germination and vegetative phase, a middle phase corresponding to flowering, and a final phase corresponding to seed formation and ripening. These phases are further split into 10-day periods (dekads). The amount of rainfall needed and expected in each dekad is estimated. If the rainfall is less than this amount, the number of millimeters of deficit is counted and recorded. The total amount of deficit rainfall is then added up, and a payout is made, up to the pre-agreed limit, on the basis of how many millimeters of deficit are recorded. The larger the deficit, the larger the payout (within the pre-agreed limit).

Nyala introduced weather index-based insurance in 2009 specifically to protect smallholder farmers against weather risk. The index-based insurance product was piloted with farmers in the eastern Ethiopian woreda of Boset, chosen because of the vulnerability of yields there to drought, the availability of nearby weather stations, and the willingness of cooperatives in the area to purchase the new product (the cooperative union had previously purchased crop insurance from Nyala). The insurance was targeted to smallholder farmers (most with holdings of less than 0.5 hectare) who grow haricot beans, teff, and other cereals. A weather index product was designed in collaboration with the World Food Programme around the rainfall requirements of haricot beans.

This product was purchased by 137 haricot bean farmers in the Lume-Adama Farmers’ Cooperative Union (LAFCU), an organization of 22,000 members located in three woredas. Similarly, 200 teff farmers in the Kola Tenben woreda in northern Ethiopia were insured with a weather index product.
that was designed around the rainfall requirements of teff. This product was provided in cooperation with Oxfam-America, mainly using satellite data. Nyala has reinsured these products through Swiss Re.

The product has potential for areas where drought is the major risk to crop yields and where it is easy to define a good year and a bad year. It is difficult to price and reinsure unless the index relies on a nearby weather station that has consistently recorded rainfall for decades.

Using cooperatives to reach many farmers

In both the MPCI and weather index insurance contracts, Nyala has found that farmers’ unions serve as effective delivery channels for the weather insurance products. By working with cooperative unions, Nyala insures all farmers who belong to the cooperative under the same contract. The cooperative is responsible for both paying the premium and distributing potential payouts (as calculated by Nyala) to each insured farmer, reducing transaction costs for Nyala. Working with cooperatives is an important means of achieving the scale required for insurance products.

Because many of these cooperatives already provide financial services and technical assistance, they are well positioned to support the provision of insurance coverage to their farmers. For example, in the case of the haricot bean pilot, all farmers were members of LAFCU. The union was already providing agricultural inputs and allowing farmers to purchase them on credit, given that most farmers have little or no savings to buy agricultural inputs up front.

In the pilot project, LAFCU, the Yerer Farmers’ Cooperative, and Dedebit Microfinance served as effective intermediaries for Nyala while also insuring their members’ input credit against weather risk.

Nyala is continuing to consider ways to provide insurance, taking into account farmers’ limited capacity to pay for insurance up front.

Investing in infrastructure

The lack of infrastructure necessary to create the weather indexes makes it difficult to scale up index insurance. Currently, the National Meteorological Agency collects weather data from around 900 weather stations across the country, but only about 140 stations have the many years of historic records required to price index insurance.

In addition, the design of the index-based insurance product depends on a fast and transparent data collection process, but in Ethiopia data collection from existing stations is slow and may be subject to errors. At most weather stations, data are collected manually on a daily basis, recorded on paper, and sent once a month by mail to regional offices and to the central office in Addis Ababa, where they are checked for inconsistencies and entered into a computer.

In the case of the Boset weather index insurance pilot, weather stations in Boset and Sodere provided information on historic rainfall, but the World Food Programme invested in an automated
weather station, at a cost of around US$3,000, to collect data during the insurance contract. This step allowed rainfall data to be collected quickly and reliably, thereby facilitating prompt settlement of the insurance contract.

Summary

Nyala insurance has experienced considerable success in designing innovative weather insurance products that protect a range of farmers. Public investments in institutions such as cooperatives that can retail these products to farmers and automated weather station infrastructure can help scale up these products.

Case Study 2

Micro-insurance in Zambia

Zambia is a small country in central Africa covering 752,614 square kilometres. Its population is estimated at 11.9 million, and life expectancy is low – 42 years for both men and women.

The country is a major copper producer, and its economy is based on copper and agriculture. When the price of copper collapsed in 1975, so did the country’s economy, and it moved from being potentially one of the continent’s richest countries at independence in 1964 to one of the world’s poorest. Other factors such as colonial legacy, economic mismanagement, debt, refugees from the Democratic Republic of Congo and diseases such as HIV/AIDS and malaria have all contributed to its economic decline.

Millions of Zambians live below the World Bank poverty threshold of US$1 a day. According to the Central Statistical Office 2000 Census, overall poverty stands at 73%, while extreme poverty is estimated at 58%. Only 18.3% of Zambia’s working population is formally employed, 40% is engaged in the informal sector (small and microbusiness ventures), and the rest is either unemployed (primarily in urban areas) or relies on subsistence agriculture. Only 15% of the adult population has a bank account.

Micro-insurance in Zambia is a relatively new industry consisting mainly of credit life and funeral cover for micro-borrowers and their family members. Credit life schemes pay off the loan amount in the event of the borrower’s death and pay loan installments when the client is ill. Insurance penetration is low in the country – 1% and 1.5%. Although micro-insurance falls under the Zambian Department of Pensions and Insurance, no steps have yet been taken to regulate micro-insurance in the country.

Most micro-insurance is conducted using the partner-agent model. Insurers use MFIs to reach markets they could not reach on their own by capitalizing on the client base of the MFI. In turn, the arrangement legally permits the MFI to sell micro-insurance to protect its loan portfolios.

Only two of all the regulated private insurers in Zambia – MLife and NICO Insurance – serve the low-income market through partnerships with MFIs.
Case Study 3

Madison Insurance Company Zambia


MLife underwrites individual life insurance policies, group life insurance policies, credit life insurance policies, gratuity policies, funeral expenses insurance policies and personal as well as group pension plans. Before becoming involved in the micro-insurance arena in 2001, the company focused on the corporate market and the higher end of the individual market.

MLife and micro-insurance

MLife offers the two standard micro-insurance products, credit life and funeral insurance. It conducts most of its microfinance business through MFIs. Legally the MFIs are the policyholders. In practice, the MFIs act as insurance agents in return for either a fee or profit share.

Product development remains MLife’s responsibility, with minimal input from the MFIs on premium rates and coverage. The MFIs are solely responsible for sales and servicing (the collection of premiums and claim settlements), client education and measuring client satisfaction. Clients live mainly in peri-urban areas and are mostly self-employed, operating small or micro-enterprises.

MLife has partnerships with six of the biggest microfinance institutions in Zambia: PRIDE Zambia, PULSE Holdings, Christian Enterprise Trust of Zambia (CETZAM), the Foundation for International Community Assistance (FINCA), Nkwena and Pan Africa Building Society.

MLife’s first product for PULSE was an adaptation of a credit life policy that it has developed for commercial banks, the Credit Life Assurance Scheme. In 2002, PULSE, through its association with MLife, then introduced a funeral policy called Thandizo, meaning ‘assistance’, which covers the borrower and selected household members.

In 2004, CETZAM also decided to include credit life insurance as part of its product offerings, because NICO, the provider of its funeral policy, did not provide it. PRIDE Zambia and FINCA Zambia came on board soon afterwards. Each of these organizations has made taking out credit life and funeral cover for the principal borrower mandatory with every loan.

Profit distribution

MFI’s partners are compensated for their sales and service functions in one of two ways: and administration fee or profit sharing. The profit-sharing scheme works as follows: MLife deducts
30% of the premiums to cover its administrations costs; it then pays out claims and finally shares the balance evenly between itself and the MFI. The profit share is calculated at the end of each financial year and any losses are for MLife’s account. Only two of the six MFIs have opted for the profit-sharing arrangement. The others receive a fixed fee of 10% of the premiums collected. MLife prefers the fee approach because it is slightly easier to administer and at present more profitable to MLife, says Chakonta.

Challenges

This market is not without its challenges. Research conducted for CGAP, for example, has shown that MFI management, loan officers and their clients do not understand the products sufficiently. Credit officers are recruited to sell and manage the MFIs’ core business – credit – and not for their knowledge of, or experience in, insurance. Therefore, the MFI loan officers do not give insurance products the focus they need. Few MFI clients really understand micro-insurance, and many perceive it as a cost and not as a beneficial product. This is exacerbated by the fact that insurance is mandatory with a loan. Left as a voluntary purchase, most of the target market would not buy insurance. According to Chakonta this is understandable as every cent spent on insurance in reality can be a contribution to the next meal.

The MFIs do train the credit officers on the insurance products, and occasionally invite MLife to provide this training. However, the training is limited to information about the product features. Chakonta stresses that, as a consequence, MLife has become more involved with training, but the high turnover of loan officers means that keeping the MFI staff well trained remains a major problem.

The lack of information technology within the MFIs also makes the complicated paperwork of registering new clients and processing claims more onerous. Chakonta explains that MLife does not have up-to-date information on its micro-insurance clients, as paperwork takes as long as five months to reach the company. This in turn affects the settlement of claims. In addition, settlements are delayed if the documentation provided by the MFIs is insufficient or incomplete.

In an attempt to shorten the claim period, some MFIs have opted to pay upfront and claim from MLife afterwards, as long as the documentation is correct. For its part, MLife has accommodated clients in rural areas by, for example, replacing the requirement of seeing a death certificate with written confirmation of the death from three public officials.

The MFIs have their own difficulties. For example, the client base of PULSE dropped from 3,063 in 2001 to only 1,945 towards the end of 2004. Research in 2002 by an independent company revealed high delinquency and default, low client retention, HIV/AIDS, fraud and high staff turnover. PULSE subsequently underwent a major restructuring that included product refinement, product diversification, policy changes, and institutional and staff changes. However, this drop in the number of PULSE clients damaged the growth of MLife’s micro-insurance business at the time.

Looking to the future
Despite the challenges, this venture benefits all parties. The MFIs benefit because micro-insurance lowers their credit risk and increases their profitability through the administration fee or profit share. In addition they are able to provide their customers with an extra service.

Clients and their families benefit by having their loans covered or a funeral policy in the event of death. As most MFIs issue loans through group lending using mutual guarantees, they expect the group to repay that member’s debts in the event of death or illness. Micro-insurance is crucial for keeping groups together and helping them continue after a member’s death. Moreover, before insurance was introduced, the MFIs excluded potential borrowers suspected of being HIV positive. However, now that a group loan is covered by insurance, MFIs seemed less concerned about excluding members who might be HIV positive as long as they appear physically healthy.

For MLife, which recognized the opportunity in the low-income market in 2001, the venture has shown promise and contributes as much as 22% to the company’s overall income. Moreover, since 2002, the micro-insurance arm of the business had grown by more than 300%. ‘Although we have done reasonably well,’ says Chakonta, ‘we still need more volume,’ adding that MLife is determined to tackle the issues in order to make the business grow.

One way in which MLife is considering expanding the business is by offering micro-insurance through commercial credit providers, which are growing much faster than the NGO MFIs. Direct selling, using cellphone technology for example, is not an option at this point, because MLife does not have direct access to potential end users. Moreover, most of the target market still does not have access to a cellphone. As a result, MLife is continuing to work with groups only. That said, because the MFIs have now started moving into rural areas, MLife products are now covering a wider area as well.

**Ethiopian Insurance Regulation**

In most developing countries, government decisions affect all aspects of an insurer’s operations. Governments influence insurers by enacting insurance legislation and/or by establishing a regulatory body to oversee the activities of the insurance industry.

Insurance regulations and legislation in the United States focus on five areas:

- **Formation and Licensing of Insurers:** Allowing influence over the type of products an insurer will provide (e.g., life vs. health), the quality of the initial financial and management base, etc.;

- **Financial Status:** Setting standards for financial performance and limitations on the riskiness of an insurer’s portfolio;

- **Rate Setting:** Providing protection against discriminatory pricing, controls over changes in premiums;

- **Policy Forms:** Ensuring insurance contracts are clear and not misleading;
- **Sales Practices:** Establishing standards regarding the product training and education received by sales agents, advertising standards and deceptive sales practices.

In other countries where government regulation may not exist in all of the areas stated above _associations_ or the insurers themselves often develop standards for self-regulation in an effort to protect the public interest. For example, licensing and financial regulations are intended to maintain insurers’ solvency and thereby protect consumers from buying insurance from a company that may be out of business when they need to make a claim. Rate setting, policy form, and sales practice regulations are intended to protect the consumer against misleading or deceiving sales tactics.⁶⁸

Ethiopia’s legal framework regarding the insurance industry is devised of a hierarchy of proclamations, codes and directives that outline its’ policies, governing structure, management, administration and supervision of the industry.

**Ethiopia’s Insurance Industry Regulation Framework⁶⁹**

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Applicable Sector</th>
<th>General Framework</th>
</tr>
</thead>
</table>
| Licensing and Supervision of Insurance Business Proclamation No. 86 of 1994 | -Insurance Sector | ➢ Governing proclamation for insurance sector  
➢ Addresses institutional for, prudential and some basic market conduct regulation  
➢ Institution must be a share company to be an insurer; does not allow institutional form of a financial cooperative to become insurer  
➢ No separate definition for or special treatment of _micro insurance_  |
| Commercial Code                                  | -Insurance Sector -Commercial Business | ➢ Relevant sections that currently apply are definition of insurance and insurance policy (Article 564) and section on payment of premiums (Article 666).  
➢ New Commercial Code currently being drafted. It's likely that relevant insurance sections of the Commercial Code will be moved to the new insurance Proclamation. |

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⁶⁸ Churchill, C.; Brown, W.;  
⁶⁹ Source: The Centre for Financial Regulation and Inclusion
<table>
<thead>
<tr>
<th>Document Title</th>
<th>Sector</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monetary and Banking Proclamation No. 84 of 1994</td>
<td>Financial</td>
<td>Proclamation establishes National Bank of Ethiopia as separate and independent from national government. Proclamation provides Banks with the power to supervise insurance industry.</td>
</tr>
<tr>
<td>Licensing and Supervision of Banking Business: Proclamation No. 84 of 1984</td>
<td>Banking</td>
<td>Governing proclamation for MFI sector. Places no limitations on ability of MFIs to be an insurance company or intermediary.</td>
</tr>
<tr>
<td>Cooperative Societies Proclamation</td>
<td>Cooperative</td>
<td>Governing proclamation for Cooperatives sector. Places no limits on ability of cooperatives to an insurance company or intermediary.</td>
</tr>
</tbody>
</table>

The Licensing and Supervision of Insurance Business Proclamation governs all insurance activities in Ethiopia except for a few insurance-relevant definitions in the Commercial Code of 1960 is the main piece of legislation constituting the insurance regulatory framework. However, several other pieces of legislation also form part of the framework and help to determine who may write insurance.⁷⁰

These pieces of legislation include the following:

- Commercial Code of 1960
- Monetary and Banking Proclamation No. 83 of 1984
- Licensing and Supervision of Banking Proclamation No. 84 of 1994
- Licensing and Supervision of Microfinance Institutions Proclamation No. 40 of 1996
- Cooperative Societies Proclamation No. 147 of 1998 Societies (Amendment) Proclamation No. 402 of 2004

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Financial Literacy

There are many gaps that need to be addressed as we move forward in delivering appropriate micro-insurance products to low-income households, particularly given the restricted scope of our intended target group and their limited exposure to micro-insurance. Moreover, the absence of risk aversion products developed for low-income households makes the task of creating a broad understanding and awareness of the feasibility and benefits of insurance challenging. The analysis shows limited uptake of insurance and narrow awareness of basic insurance offerings such as life, health and death insurance. To further analyze the constraints related to increasing financial literacy to the targeted group the study explored the understanding and awareness of various banking terms.

The awareness level of basic financial terms was relatively high in terms of the frequency of respondents knowing what particular banking phrases mean (i.e., loan, interest, budget.) However, awareness was quite low for the terms such as leasing, pension management and shares. Surprising a modest percentage of respondents heard of the terms budget and investment but are unable to articulate their meaning. The latter terms are essential to understanding and managing appropriate risk management strategies and suggest the need to develop a comprehensive financial literacy program that complements the product development process and assists potential clients in developing sustainable risk aversion schemes.

Terms related specifically to the various dimensions of insurance were reviewed by respondents to identify levels of literacy. The target group's limited exposure to insurance is exhibited by respondents' partial awareness of basic insurance terms. Nevertheless, 70% of the respondents knew the term insurance and over 40% of the respondents understood the concept of insurance benefits. Although awareness was high among basic terms a large percentage of clients never heard of the following terms: premiums, claim processing, and insurance coverage.
In order to develop an appropriate advertising campaign it was critical to identify how and from what sources respondents are exposed to financial information. The results indicate that a majority of respondents obtain financial service information from relatives and friends (81.7%). This lends itself to targeting communal organizations such as cooperatives and unions; as they are a combination of business and comradity. Consequently, 51.7% and 41.7% of the respondents reported that they derive their financial service information from Cooperatives and Unions respectively. As expected 75% of the respondents indicated that they receive financial service information from the radio, as the apparatus is easily accessible and relatively inexpensive. 50.8% of the respondents reported that they obtain information from the television. Advertisements were a limited source of financial service information (20.8%); and banks and microfinance institutions are a relatively good source for providing financial service information at 30.8% and 31.7% respectively. Churches, a big social outlet, is
surprisingly a very low source of financial service information at 5%.
**Product Concept**
Two product concepts were developed to gauge the respondent’s perception of various aspects of the designed products. Respondents were asked what aspects of the products they most like; and their willingness to purchase the products. Respondents who were disinterested in the product concepts were asked why they disliked the product and what aspects of the products could be changed to change their decision about the product.

**Product Concept 1**

<table>
<thead>
<tr>
<th>Livestock insurance is a product that protects farmers against any financial risks related to livestock farming created by sudden or unexpected risks. To protect yourself against various livestock risks you can insure your livestock by paying a fixed monthly payment. If your insured livestock becomes ill/sick or die, a claim is made and the policyholder receives in a timely manner a cash benefit payment sufficient to cover costs related to the insured livestock risks.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coverage</strong>: This is the risk-management product that covers the death of insured livestock during a fixed term (1,3,5 years)</td>
</tr>
<tr>
<td><strong>Benefit</strong>: In the case of the death of the livestock during the selected period the policyholder will receive a fixed benefit of 10,000 Birr</td>
</tr>
<tr>
<td><strong>Claim Processing</strong>: Within one month of the event the benefit will be transferred to policyholder in cash</td>
</tr>
<tr>
<td><strong>Provider</strong>: The service will be provided by a Livestock Cooperative/Union that will act as an “agent” for an Ethiopian insurance company.</td>
</tr>
<tr>
<td><strong>Proximity</strong>: The service is available in district (Indicated survey district) “_____”</td>
</tr>
<tr>
<td><strong>Price</strong>: The Price of the service is 100 Birr per month</td>
</tr>
<tr>
<td><strong>Frequency of Premium Payment</strong>: monthly</td>
</tr>
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The findings are outlined in the charts below:
An overwhelming proportion of the respondents reported that they liked the coverage (40.8%) and benefits (38.3%) of Concept Product I. The coverage protected insurers against the risk of livestock death and the fixed benefit is equivalent to Birr 10,000 for each livestock. The price for the concept product was unreasonably high at Birr 100 per month for the coverage of one livestock. Nevertheless, farmers indicated that they would insure between 1-6,000 livestock. The outliers were 100, 200, and 6,000 livestock respectively. The average amount of livestock respondents indicated they would insure was ten (10) and the mean amount was seven (7) livestock.

In real life scenario the risk would be pooled amongst farmers; thereby lowering the premium. The fact that 33.6% of the respondents would definitely be willing to purchase the product suggests that a similar product that is correctly priced would be attractive to smallholder farmers. Merely 7% of the respondent did not like Concept Product I.

The second ranking of Concept Product I revealed that livestock death
coverage is an important attribute and that providing indemnity insurance via cooperatives / unions is appealing to smallholder farmers. However, pricing still remains an issue of concern. Nevertheless 72.5% of the respondents indicated that they definitely would recommend the product to friends and 19.2% of the respondents reported that yes they would recommend the product to friends.

The attributes of Concept Product I that respondents disapproved of was the price (57%) and the frequency of premium payment (74%).

**Willingness to purchase product Concept I:**

<table>
<thead>
<tr>
<th>Definitely Willing</th>
<th>33.6%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willing</td>
<td>6.7%</td>
</tr>
<tr>
<td>May be Willing</td>
<td>10.1%</td>
</tr>
<tr>
<td>Definitely not Willing</td>
<td>49.6%</td>
</tr>
</tbody>
</table>

A majority of respondent not willing to purchase the products indicate that price is the overriding reason for their decision – 79.7% of the respondents. The latter respondents were asked if the price was reduced to Birr 75 per month would they then be willing to purchase the insurance. 87% of the respondents indicated that they would not change their decision and 11.6% would consider and 1.4% reported that they would be willing to purchase the insurance at that price.

When asked if there is any price change that would persuade respondents to purchase the insurance an overwhelming proportion of respondents (92.5%) indicated that they would. The most frequent price that would change their decision was a monthly premium of Birr 10 per livestock (32.8%) and Birr 50 per livestock (21.9%).

5.8% of the respondents not interested in the product indicated that the reason for the disinterest was that the benefit was not appropriate for them.
**Product Concept 2**

Livestock insurance is a product that protects farmers against any financial risks related to livestock farming created by sudden or unexpected risks. To protect yourself against various livestock risks you can insure your livestock by paying a fixed monthly payment. If your insured livestock becomes ill/sick or die, a claim is made and the policyholder receives in a timely manner a cash benefit payment sufficient to cover costs related to the insured livestock risks.

**Coverage:** This is the risk-management product that covers **livestock related illnesses** during a fixed term (1,3,5 years)

**Benefit:** In the case of the illness of the livestock during the selected period the policyholder will receive a payment that will cover veterinary related costs related to the sick (payouts will be predetermined based upon the type of livestock illness).

**Claim Processing:** Within one month of the event the benefit will be transferred to policyholder in cash

**Provider:** The service will be provided by a Livestock Cooperative/Union that will act as an “agent” for an Ethiopian insurance company.

**Proximity:** The service is available in district *(Indicated survey district) “______”*

**Price:** The Price of the service is 55 Birr per month

**Frequency of Premium Payment:** monthly
An overwhelming proportion of the respondents reported that they liked the benefits (35%) and the coverage (25.8%) of Concept Product II. The benefit included payment of veterinary costs of ill livestock; the coverage protected insurers against the risk of livestock related diseases during a fixed term. The price for the concept product II was more reasonably priced at Birr 55 per month for the coverage of one livestock. Nevertheless, farmers indicated that they would insure between 1-100 livestock utilizing Concept Product II; the outliers was 100. The average amount of livestock respondents would insure, excluding the outlier, was nine (9) livestock and the median was seven (7) livestock.

The second ranking of Concept Product II revealed that the proximity benefit and price were the attributes that smallholder farmers found appealing about coverage of livestock illness. Consequently 31.8% of the respondents indicated that they are definitely willing to purchase the product; however 57.3% of the respondents indicated that they are definitely not willing to purchase the product; 6.4% indicated that they may be willing to purchase the product and 4.5% of the respondents indicated that are willing purchase Concept Product II. Surprising, the provider (cooperatives / unions) ranked lowest at 1% in the second round of ranking.

A majority of respondent not willing to purchase the products indicate that the frequency of premium payments is the overriding reason for their decision – 69.5% of the respondents. 16.9% of the respondent indicated that they were dissuaded from purchasing due to the price and 8.5% of respondents indicated that they were displeased with the processing process.
Final Comments of Respondents:
Respondents were asked to provide their input regarding any issues related to indemnity insurance. Here are some of the comments:

- I want to insure my livestock as soon as it comes to my district
- It’s better to change the insurance benefit and lower the price
- If the insurance comes to our area we will be more than happy to take it
- As it is a serious problem it should be available soon and be available in our village to avoid travel costs
- The insurance coverage should be reduced to three months; especially for exporters; and the premium should be reduced
- Livestock transport insurance would be good
- Is it possible to change the frequency of the premium from monthly to yearly
- It is better to change the insurance concept into practice
- It is better to provide crop insurance and livestock insurance
- I need livestock insurance but it is not affordable
- It is better to have medical supplies for livestock
- Livestock insurance is important but please consider our capacity
- It is important to think about livestock death during transportation
- The cost and the benefit and premium of livestock insurance must be set based on the livestock cost; also we need to spread mass education on the benefits to farmers
- Inflation and instability make it difficult to purchase insurance – price should be minimized to Birr 10
- We primarily need livestock transport insurance
- The monthly premium is high – the insurance company should improve it
- The service should be facilitated quickly
- The price for Product Concept I and II should be minimized to Birr 100
- We need education on the issue of insurance