



Integrating index-based livestock insurance with community savings and loan groups in northern Kenya

Samuel Mburu, Leigh Johnson and Andrew Mude

Despite the availability of huge livestock resources, pastoralist areas of northern Kenya are characterized by chronic vulnerability to drought-related shocks¹ and pastoralists' declining coping abilities. Previously successful coping strategies include: mobility; keeping large and heterogeneous herds; herd splitting during crisis; seeking support from kin and clan networks; and knowledge of traditional early-warning systems to help minimize losses². Given pastoralists' declining mobility and difficulty repopulating herds, increasing numbers of ex-pastoralists are moving to towns to work as petty traders or unskilled labourers³. Though pastoralist vulnerability varies, depending on gender, poverty, social status, species of livestock kept, and degree of mobility, women and girls are at greater risk due to limited assets and decision-making power.

Innovative strategies are needed to safeguard livestock-based livelihoods and enhance drought-coping mechanisms. One such strategy is to link the acquisition of a livestock-based

insurance product with access to informal financial services, smoothing out household consumption and preventing distressed sales of livestock. To date, financial services in Marsabit county, northern Kenya—the focus of this study—are quite limited but growing. A handful of formal banking institutions can be found in Marsabit town, while informal savings groups predominate in more remote areas. Poor transportation, communication and electricity infrastructure constrain the geographical reach of financial institutions and the potential of mobile banking.

In collaboration with CARE Kenya in 2013, the Index-based Livestock Insurance (IBLI) project of the International Livestock Research Institute undertook a study of efforts to integrate livestock insurance with group savings and loan organizations (GSLs) in Marsabit county. Under their Marsabit Drought Resilience Project (MDREP), 71 GSLs were formed across the divisions of Maikona, Loiyangalani and North Horr. Constituted by community members—primarily women—GSLs pool their savings to extend small loans to group members. The CARE GSL model relies on community-based trainers (CBTs) mobilizing members to form groups, which receive training and establish operating and lending procedures. The main objective of this IBLI/CARE collaboration was to assess the impact of integrating an insurance product for pastoralists' most productive asset alongside access to informal financial services.

1. Government of Kenya. 2012. Kenya post disaster needs assessment, drought 2008–2011. Nairobi, Kenya: Government of Kenya.

2. Lybbert, T.J., Barrett, C.B., Desta, S. and Coppock, D.L. 2004. Stochastic Wealth Dynamics and Risk Management among a Poor Population. *The Economic Journal* 114:750–777.

3. Little, P.D., McPeak, J., Barrett, C.B., and Kristjanson, P. 2008. Challenging orthodoxies: understanding poverty in pastoral areas of East Africa. *Development and Change*, 39(4), 587–611.

Methodology

Between August 2012 and May 2013, 1685 GSL members received training on IBLI, and savings and loans. Forty-seven groups had exclusively women members, while 22 were mixed gender and 2 were men only. To assess the preliminary outcomes of these efforts, this study asked the following research questions: (1) How do GSLs operate in terms of loans extended, savings collected, and interest charged? (2) Are GSLs an effective extension vehicle for IBLI? (3) What is the extent of IBLI uptake through the groups? (4) Does provision of credit from GSLs relax members' liquidity constraints and in turn facilitate IBLI uptake? And (5) Could GSLs increase the accessibility of IBLI by acting as sales agents, and what benefits/risks could sales agency have for the groups and on insurance sales?

The methodology comprised a two-pronged data gathering effort, including focus group discussions (FGDs) and member questionnaires. Fourteen FGDs were conducted to assess the extent of IBLI purchase, and members' understanding of IBLI and their opinions and suggestions about delivery channels and sales agency. The number of groups selected per division was proportional to the number of GSLs in that division. Four FGDs were conducted in Gas (North Horr division), Four in North Horr (North Horr division), three in Kargi (Loiyangalani division), two in Elgade (Maikona division), and one in Bubisa (Maikona division).

In addition, the team conducted 138 individual questionnaires with focus group participants (113 female and 25 male respondents) to probe individual understanding and decision-making, as well as 12 semi-structured interviews with participants to understand motivations for group membership and solicit participants' decision processes concerning insurance purchase and pay-out use. Key informant interviews were also conducted with the five CBTs. Analysis of these data sources was supplemented with data from the IBLI Marsabit 924-household survey, part of a multi-year impact evaluation strategy designed to record extensive livelihood and welfare indicators and precisely estimate the impact of IBLI. The IBLI household survey data included 114 CARE GSL households and 810 non-GSL households.

Findings

GSL operations and borrowing patterns

According to CARE reporting data collected in March 2013, the 71 MDREP groups had mobilized savings worth nearly KES2 million⁴ and had made active loans worth KES1.1 million. Although the active loan-to-savings ratio was 57%, individual GSL constitutions and lending conditions, loan size and accessibility varied. Among most of the 14 GSLs in which FGDs were conducted, maximum loan limits depended on the borrower's ability to repay and available cash on hand in the loan fund. All groups surveyed reported that borrowers were charged an interest rate of 10%; however, due to significant variability in loan repayment periods, between one and six months, effective monthly interests rates ranged between 10 and

4. KES 1 = USD 0.011 in March 2013

1.67%, with half of the groups collecting 3.33% per month for three months. Collateral and liability requirements also varied; some required collateral, while others mandated guarantorship by a family member. In case of late payment, most groups levied additional interest (typically +10%), while some imposed fines or allowed for repayment extensions.

According to the 2012 IBLI household survey, GSL households were more likely to borrow (16%) than non-GSL households (5%). Fewer than half of the 138 FGD participants responding to the questionnaire had ever taken a loan from the GSL, the median value of which was KES6000. The top three reasons given for taking loans by group members were: paying school fees, investment for petty and livestock trade, and purchasing food. No member reported having taken a loan expressly to purchase livestock insurance, and only 3% used credit to restock their herd⁵.

IBLI extension

The study found broad enthusiasm among focus group participants for the use of the GSLs as IBLI extension vehicles. Furthermore, group members demonstrated better comprehension of the IBLI product than non-GSL households in IBLI's household survey. Their responses to questions testing insurance understanding were on average 17% more accurate than non-GSL households' responses (60 versus 43%). This indicates the relative success of GSLs in raising the levels of insurance awareness among pastoralists. Nevertheless, we noted great unevenness between and within groups with respect to members' understanding of IBLI and the general principles of savings and loans. This may be due to the frequency and quality of CBT training, as well as groups' pre-existing mistrust of financial transactions. Trainers' activities were hampered by long distances between groups and the high transportation costs, not covered by their contract with CARE.

IBLI uptake

Uptake was quite low among both the CARE GSL households and the 924 IBLI survey households (6–9%). There was also a distinct geographic pattern of uptake among GSL households, with the large majority of IBLI purchasers (71%) coming from a single division (Gas). In this location, trainers were more active and the level of understanding about IBLI higher compared to other divisions surveyed. Table 1 presents the breakdown of animals insured by GSL members and sub-location.

Table 1: No. of animals insured by GSL members: Aug-Sept 2012 and Jan-Feb 2013 sale periods

Sub-location	Camels	Cattle	Shoats
Gas	62	15	610
Kargi	0	2	76
North Horr	0	0	69
Bubisa	0	0	0
Total	62	17	755

5. This corroborates findings from a parallel IBLI study by Gesare, A., Sheahan, M., Mude, A., and Banarjee, R. 2015. Determinants of Pastoral Women's Demand for Credit; Evidence from Marsabit in northern Kenya, Working Paper. Nairobi: Kenya: International Livestock Research Institute.

Shoats were by far the most common animals insured across all the sub-locations, while camels were only insured in Gas. Notably, only shoats were insured in North Horr; while limited CBT activity and IBLI understanding in Bubisa generated no new uptake. The preference to insure shoats appears to stem from lower premium costs. In individual interviews, purchasers often explained their preference for insuring shoats as a result of liquidity constraints. As 10 shoats can be insured for the price of one cow (or one tropical livestock unit), only small amounts of cash are required to pay premiums for a handful of animals.

A Rendille pastoralist in Kargi presents her insurance receipt.
(Photo: L. Johnson)



Although most group members were women, on average men insured a larger number of animals and hence paid more premiums. Roughly 80% of camels and cattle insured were insured by men, while approximately half of shoats were insured by each gender. The average premiums paid by men and women were KES2201 and KES708, respectively. Many GSL members reported they had adopted a 'wait and see' attitude with respect to purchasing insurance. Other reasons given for not purchasing livestock insurance are presented in Table 2. Among factors discouraging purchase, interestingly liquidity constraints did not rank considerably higher than product understanding.

Table 2: Primary reason for not purchasing livestock insurance

Reason	% of responses
Wait and see what happens to those who bought insurance	25
Don't have money to spend on insurance	22
Did not understand insurance well enough to buy it	20
Don't think insurance will help me	19
Don't have enough animals	10
Already purchased in Aug-Sept 2012 sales period	4

Relation between credit and IBLI uptake

According to questionnaire responses, the main sources of money for purchasing insurance by group members were: own savings (76%), a portion of a GSL loan (13%), loans from others (8%), and borrowing from friends (3%). Notably, FGD participants resolutely disinclined to take GSL loans

to purchase insurance, although some reported paying IBLI premiums with a small proportion of past loans. Analysis of questionnaire data shows no significant relationship between GSL borrowing and IBLI purchase. Though not significant at any level, a Pearson pairwise correlation analysis reveals both slight negative and positive influences of borrowing on the purchase of IBLI, depending on the season.

Focus group participants almost universally considered the combination of GSL borrowing to purchase insurance to be a particularly risky form of double jeopardy, as loans and interest would still have to be repaid regardless of whether they received insurance compensation. Several groups referred to this as a 'double loss'. There was also the keenly sensed presence of basis risk, which could lead to a 'triple loss' situation in which a member lost a significant number of livestock without receiving a pay-out. The mismatch between loan repayment timeframes and the IBLI pay-out calendar also discouraged borrowing for this purpose, since the 6-12 month window for potential pay-outs is long in comparison to the three-month loan repayment period of most groups. This perception of double jeopardy would be a major stumbling block to efforts to increase IBLI demand through access to credit.

The potential for GSLs to act as IBLI agents

Given stark inter-group disparities in literacy, numeracy and IBLI understanding and interest, it was difficult to generalize about the possibilities, benefits and risks of GSLs acting as IBLI agents. Some groups expressed interest in this possibility, while others dismissed agency as too complex and risky. Some group members expressed fears of agency damaging their credibility and reputation among community members in the event that losses suffered did not trigger pay-outs to the insured parties. Although extending agency to the groups would likely have a near-term positive impact on IBLI accessibility in underserved areas, it might not generate net income for the groups for quite some time.

Conclusions and recommendations

The study found substantive differences between the 14 GSLs profiled, including interest rates, collateral requirements, and savings-to-loan ratios. Nevertheless, overall GSL members accumulated more savings and accessed more loans than their non-GSL counterparts. GSL members' relative success in correctly answering questions on IBLI suggests extension through GSL groups may be more effective than through normal IBLI channels. But full product comprehension is patchy and depends on CBT quality and motivation. Increasing understanding of IBLI hinges on improving training of GSL members and developing a package of more accessible educational tools for use in the groups.

Moreover, little evidence was found to suggest that extension through GSLs had increased IBLI uptake above the 6-9% household baseline rate. Most households are reluctant to borrow to purchase insurance, due to high interest rates on loans, the social and economic sanctions on default, and the risk of the insurance not triggering. Therefore, one way of increasing IBLI uptake would be to further subsidize insurance premiums or loans.

Although group IBLI agency may be feasible in some locations, careful planning and management of expectations will be required so as to avoid damaging the groups' or IBLI's reputations or creating competition between agents. Extending the agency model to GSLs requires specific understandings of individual groups' capacities and intra-group dynamics of trust, decision-making, and profit-sharing.

Acknowledgements

This research was made possible using the data collected by a joint ILRI-Care Kenya project, generously funded by Agriculture Organization (FAO) Kenya, under the

Photo credit:

Page 1: ILRI/Riccardo Gangale

Page 1: ILRI/Riccardo Gangale

Samuel Mburu and Andrew Mude work for the International Livestock Research Institute, and Leigh Johnson works in the Department of Geography at the University of Zurich.

Improved Community Drought Response and Resilience Programme (ICDRR). We would also like to thank our participants, the invaluable team of enumerators/facilitators, and CARE Kenya staff for their support during the project implementation and data collection phases. Finally, we particularly recognize and appreciate the contributions of M. Shibia, D. Galgalo, and E. Chebylon who were integral to the research and Munenobu Ikegami for his careful and thoughtful comments.

IBLI was funded by the Australian and UK governments, and the EU through a UKAID Accountable Grant Arrangement for Index-Based Livestock Insurance, Arid Lands Support Programme, project code 202619-101, and the CGIAR Research Program on Dryland Agricultural Production Systems.

Contact

Andrew Mude
ILRI, Kenya
a.mude@cgiar.org
<http://ibli.ilri.org/>



ilri.org
better lives through livestock
ILRI is a member of the CGIAR Consortium

Box 30709, Nairobi 00100, Kenya
Phone: +254 20 422 3000
Fax: +254 20 422 3001
Email: ILRI-Kenya@cgiar.org

Box 5689, Addis Ababa, Ethiopia
Phone: +251 11 617 2000
Fax: +251 11 617 2001
Email: ILRI-Ethiopia@cgiar.org

