

ILRI's Index-Based Livestock Insurance: Hope for Kenya's pastoralists

Severe droughts are a common experience in Kenya's arid and semi-arid lands. In recent years, the impacts of these droughts on livelihoods have been increasing, and the frequency of droughts has appeared to be on the rise. Pastoralists are bearing the brunt of the drought. The International Livestock Research Institute (ILRI) has developed an innovative insurance scheme that will help the pastoralists deal with the impacts of drought on their livestock.

Many pastoral households in Kenya's arid and semi-arid lands (ASALs) are often exposed to widespread livestock losses due to the perennial droughts experienced in the areas. This often has a devastating effect on their livelihoods, especially since, as research has shown, livestock represents the key productive asset and source of income for most ASAL households and drought-related livestock mortality is the biggest risk these pastoralists face.

Thanks to the International Livestock Research Institute (ILRI) and its technical partners at Cornell University, the BASIS Research Program at the University of Wisconsin-Madison, and Syracuse University, all in the USA, pastoralists in the Marsabit district of Kenya have a reason to smile. Together with its partners, ILRI has designed an innovative insurance scheme that will compensate the pastoralists when they lose their livestock to drought. After two years of comprehensive research on the risks faced by pastoralists and the possible solutions, Index

Based Livestock Insurance (IBLI) was born. Together with two commercial partners, ILRI launched a pilot project of this innovative insurance product in Marsabit town, Northern Kenya, in January 2010.

■ Satellite images determine insurance payouts

Like with any insurance product, IBLI aims to compensate clients in the event of a loss. Unlike traditional insurance, which makes payouts based on case-by-case assessments of individual clients' loss realisations, index-based insurance pays policy-holders based on an external indicator that triggers payment to all insured clients within a geographically-defined space.

IBLI is based on an established statistical relationship between livestock mortality and forage availability. Forage availability is measured through the Normalised Difference Vegetation Index (NDVI), which is a satellite-derived indicator of the level of vegetation observed in a given location. This statistical relationship is known as a response function. Once the response function has been developed, one can input NDVI data into the response function and generate the predicted livestock mortality in the area. This

predicted livestock mortality serves as the index upon which insurance payments are based.

IBLI only covers the pastoralists for livestock lost through drought. The livestock covered under this scheme include camels, cattle, sheep and goats. The insurance contract covers the livestock for one year and has two potential payout periods. These are at the end of both the long and the short dry seasons.

The contract has a strike level which is the level of predicted mortality above which the insurance starts to payout. Suppose, for example, that the strike level is 15 percent. If the predicted mortality index at the payout period reads 35 percent, the insured will receive 20 percent (35–15) of the value of their insured livestock in return.

Clients are only allowed to purchase this insurance in a two-month buying window prior to the rainy seasons. This is because at this time they are unable to predict what the weather conditions will be for the next season.

The satellite images that determine insurance payouts cannot be manipulated by either the insurance company or the clients since they are collected by NASA and are available to the public for

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free. As such, fraud on claims is virtually eliminated.

■ Why insurance?

This insurance will help reduce the possibility of vulnerable households being thrown deep into poverty when they lose their livestock in the aftermath of a drought as they will receive compensation for livestock lost. In addition, clients will be able to access credit since their insured livestock could be used as collateral.

Insuring livestock against disasters could also address the high risk of investment in the ASALs. This should improve incentives for households to build their asset base and climb out of poverty. One pastoralist in Kargi, a small town in Marsabit district, said that she would buy more livestock now that she had insurance and was sure of getting compensated in case she lost the livestock to drought.

■ Implementing index-based insurance

In implementing this insurance, ILRI worked with commercial partners UAP insurance company and Equity Insurance Agency, a subsidiary of Equity Bank. UAP was the underwriter, while Equity Insurance agency, with support from ILRI, provided extension and marketing services and conducted sales. Since the pastoralists had no prior knowledge of insurance, the partners

Pastoralists in Marsabit struggle with a cow that is dying due to lack of forage.



Photo: ILRI

used insurance simulation games to explain the concept of insurance to them. Extension workers were also trained to explain the product.

IBLI was officially launched on the 22nd January 2010 in Marsabit Town. This was followed by a five-week insurance sale window. Close to two thousand contracts were sold despite various challenges on the ground such as: delays in setting up of the Points of Sale, which forced the insurance agency to collect premiums manually, a short sale window due to the late launch date, and the fact that some of the extension workers did not get to all the pastoralists in the villages. There will be another sale window between August and September 2010.

The project team revisited the project site for a reflection and strategy workshop in March to gather information on the challenges and opportunities as well

as some lessons to ensure that the next sale window, in August and September 2010, is implemented better than the first one.

■ Monitoring the impact of IBLI

To ensure a rigorous and comprehensive evaluation of the IBLI product, ILRI carried out a survey of over 900 households in Marsabit to create a baseline of information upon which impacts can be assessed and evaluated. These households will be re-surveyed annually over four years to assess the impacts that IBLI will have on a range of key livelihood indicators.

For further information, please contact the author or visit the website www.ilri.org/ibli

Zusammenfassung

Durch die regelmäßigen Dürren in den ariden und semi-ariden Regionen Kenias droht den von der Weidewirtschaft abhängigen Haushalten oft der Verlust eines großen Teils ihrer Herden. Das International Livestock Research Institute (ILRI) hat in Zusammenarbeit mit seinen technischen Partnern eine indexbasierte Viehversicherung entwickelt – eine neuartige satellitenbasierte Versicherung, die Viehhalter für dürrebedingte Verluste entschädigt. Im Januar 2010 hat das ILRI

zusammen mit seinen Partnerunternehmen UAP Insurance und Equity Insurance Agency ein Pilotprojekt im Distrikt Marsabit in Nord-Kenia gestartet. Dabei wurden knapp 2.000 Versicherungsverträge abgeschlossen.

Resumen

Las sequías permanentes que sufren las tierras áridas y semi-áridas de Kenia a menudo exponen a las familias lugareñas que viven del pastoreo al riesgo de graves pérdidas de ganado. El Instituto Internacio-

nal de Investigaciones Pecuarias (ILRI) – en colaboración con sus asociados técnicos – ha desarrollado un seguro pecuario basado en índices que constituye un instrumento innovador fundamentado en índices satelitales y dirigido a compensar a los pequeños ganaderos por pérdidas de ganado debidas a las sequías. En enero de 2010, ILRI y sus socios comerciales UAP Insurance y Equity Insurance Agency lanzaron un proyecto piloto en el distrito de Marsabit en el norte de Kenia, donde se vendieron alrededor de 2000 pólizas.