

# Policy Brief

## Current Challenges and Opportunities of Public and Private Livestock Insurance Markets in Kenya - the case for a policy

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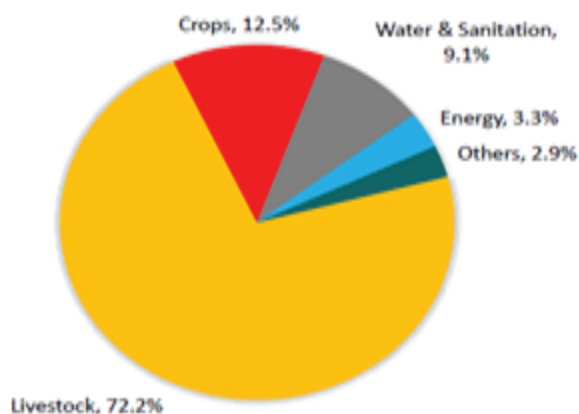
### Background

Livestock production by pastoralists is the dominant economic activity in the Arid and Semi-Arid Land (ASALs) of northern and eastern parts of Kenya. Approximately 80% of livestock, excluding poultry, is produced in these areas and employs about 90% of the ASAL workforce, with 95% of household income generated from the sector (AKI, 2016). The contribution of the livestock sub-sector in Kenya translates to approximately 17 per cent of agricultural GDP and 7 per cent of exports (ASDS, 2010). In addition, livestock is the principal store of wealth for these pastoralists and therefore any environmental changes that affect their livestock directly affects their livelihoods and consequently their resilience.

Increasingly frequent droughts have called attention to the need of building better resilience for these important Kenyan communities. Even though pastoral communities have developed a variety of strategies to manage and cope with the risk, these mechanisms are imperfect, inefficient, and have not fully mitigated persistent poverty via recurrent weather shocks to their livestock holdings. In response to enhancing risk management strategies in pastoralist areas, recently introduced Index Based Livestock Insurance (IBLI) suggests a potential for playing an important role for reducing weather related risk and building further resilience to the pastoralist communities of Kenya. Additionally, the development of a livestock insurance policy would contribute significantly to enhancing the resilience of pastoralists in Kenya's ASAL regions.

### Risk in Livestock sector in Kenya

The livestock sector in Kenya is exposed to a broad range of systemic risks, from natural disasters, epidemic diseases and pests, to production and price risks. However, drought has, for decades, been the single most disastrous natural systemic hazard in Kenya. The country has lost an estimated Sh1.2 trillion shillings between 2008 and 2011 due to drought. More than 13 million people in Kenya were affected in 2011 by a combination of drought, conflict and economic crisis. Kenyan agricultural sector risk assessment report by the World Bank group (2015), estimates that of the \$ 12.1 billion (Sh1.2 trillion) losses suffered, nearly ¾ of all losses were in the livestock sector (Alessandro et al., 2015). In other words, 72% of economic losses of the drought were felt in the livestock sector.



For *Impact of Drought on Key Sectors of the Economy*.

Source: *Agricultural Sector Development Strategy 2010-2020*

For pastoralists in ASAL areas, the likelihood of covariate risk of livestock loss is increasing— particularly those related with frequent droughts and climate change (Jensen et al., 2015). In the past 100 years, 28 significant droughts have occurred in northeastern Kenya, four of which have been in the last 10 years (Hassan et al., 2017). Livestock herders used to anticipate major droughts once every 10 years. However, the frequency of drought has increased to once in every three to four years, leaving less time for recovery and for rebuilding their herds. Unexpected livestock mortality is the most serious economic risk these pastoralist households face.

### Drought Response

Because weather shocks tend to be covariate over large geographical areas, state and national governments, as well as development agencies, are also affected by weather shocks as they face sudden demands for relief, reconstruction, and recovery for which they may not have access to the necessary financial resources (Carter et al. 2014).

Several projects have been implemented to manage risk in the ASALs but most have not resulted in transformative development. For example: The Emergency Drought Recovery Project (EDRP) in 1991–1996 in Mandera, Marsabit, Tana River, Turkana and Wajir districts; The Arid Lands Resource Management Project phase 1 and 11 (ALRMP 1996-2010); and The Kenya Rural Development Project and Hunger Safety Net Project. All of these projects have met with some success but have not alleviated poverty for most Kenyan pastoralists.

### Risk coping strategies

Understanding current pastoralist coping strategies can better help plan effective insurance policy that directly complements ASAL coping mechanisms. With a general lack of protection against drought, pastoralists have relied on self-insuring, and this is generally both costly to them and of limited effectiveness. However, in nearly all cases these mechanisms are highly imperfect and generally are less efficient in terms of economic productivity and result in lower incomes. The net result is that risk contributes significantly to the level and persistence of rural poverty (Chantarat et al., 2013).

Table 1. Shock coping and risk management in response to drought shocks

Risk management strategies (Ex-ante)	Shock coping strategies (Ex-post)
Risk avoidance (e.g. Migrate livestock/ Herd mobility)	Selling of productive assets (land, livestock, etc.)
Risk retention (e.g. precautionary saving)	Seeking temporary employment
Risk reduction (e.g. income diversification: farming)	Informal risk sharing, mutual assistance
Risk transfer (e.g. purchasing insurance)	Reliance on social safety nets (transfer, food aid)

Source: ACCI, 2013 and Carter et al., 2014

For Kenyan pastoralists, sustainable poverty reduction requires instruments to help rural households manage their livestock risk effectively. Livestock insurance, as well as other supporting strategies, could go a long way to address the loss of livestock for weather related reasons.

1. Extract from Paper on Current challenges and opportunities of public and private livestock insurance markets in Kenya, Prepared for the Voice for Change Partnership (V4CP) by James Warner and Solomon Alemu, International Food Policy Research Institute Addis Ababa, Ethiopia, October 2018.

2. Covariate risks, as opposed to idiosyncratic risk (individual), affect many actors simultaneously which causes wide-spread community-level negative impacts (e.g. major droughts or floods, fluctuating market prices).

3. In a 2009 baseline survey from five arid and semi-arid pastoral locations in Marsabit district, pastoralists households reported that livestock loss due to either droughts/floods (81%) or disease (11%) were the most significant concern in regard to their economic livelihoods. (Chantarat et al., 2009).

## Livestock Insurance in Kenya

Only with the emergence of index-based weather insurance in 2008 did more smallholder farmers begin to gain access to insurance. Index Based Livestock Insurance (IBLI) uses observable parameters, such as rainfall, temperature, and satellite-measured vegetation level to better address pastoralist risk needs (Hassan et al., 2017).

From 2005, several insurance companies started to look at the market potential of agricultural insurance (ACCI, 2013). However, opposed to traditional insurance products that require physical loss inspection, the administrative costs for livestock insurance were too high to offer these products to smallholder farmers or pastoralists. There are 50 licensed insurance companies in Kenya and currently 10 insurance companies are underwriting livestock insurance (AKI 2016).



*A pastoralists livestock market*

## Livestock insurance program in Kenya before 2015

With the private sector hesitant to insure rural smallholder pastoralists, a hybrid public/private partnership was piloted to assist smallholders in a relatively cost-effective manner. International Livestock Research Institute (ILRI), with support from DFID and in partnership with UAP and Equity Bank, set out the first index-based weather insurance to mitigate against livestock mortality for the Marsabit District in 2009. The product aimed at insuring pastoralists in the event an animal died as a result of lack of pasture grazing due to drought.

The total gross premium for livestock insurance in 2015 was ksh.148.18 Million (1.4 Million USD). On the other hand, ksh.56.17 Million (549.1 Thousand USD) claims incurred and CIC accounts for 35% from the total livestock incurred in 2015. Since 2012, ILRI has been working with APA and Takaful Insurance company to sell IBLI's product.

Index based insurance products are relatively simple and have a transparent structure which does not incentivize greater risk behavior. However, there are still many limitations. For example, pastoralists may receive a payout even when their livestock survive, or they may experience losses when a payout is not triggered. This phenomenon is called "basis risk" and has been cited frequently as a key barrier in index insurance uptake (Ruth et al., 2014).

IBLI took on the challenge of making insurance commercially viable amongst pastoralists who occupy vast remote areas in Kenya and Ethiopia with almost non-existent communication and transport options. The program was launched in Marsabit county of Kenya in January 2010. Since then, it has been expanded to include Isiolo (August 2013), Wajir (August 2013), Garissa (January 2015) and Mandera counties (January 2015) in Kenya (Jensen et al., 2015).

## IBLI development in the northern Kenya (2010-2014)

The first five years of IBLI (2010-2014) had not created a sustainable market for the insurance product. Despite the continued expansion, sales figures had still not reached significant numbers of pastoralists. Based on estimations, less than 1% of pastoralists were covered by index insurance in 2014. The top three reasons for not purchasing insurance included a lack of purchasing ability; not understanding the role of insurance and the insurance product; and insufficient need (not enough animals). The survey indicated that subsidies and awareness creation were critical bottlenecks to insurance adoption.

## The Shift from Asset Replacement to Asset Protection

A lack of uptake caused researchers to reconsider how to reduce costs to increase efficiency for improved insurance coverage. In 2014, an IBLI research team started to shift from an asset replacement contract to asset protection. Based on survey research conducted in pastoralist areas, the costs of insurance could be reduced greatly if livestock was prevented from dying (providing emergency fodder, etc.) rather than actual livestock replacement after death. Put simply, protecting vulnerable livestock is less expensive than replacing it. This indicated that IBLI could serve as precautionary savings through preventing livestock death. Pastoralists could also increase spending on livestock health services including veterinary services and vaccination asset protection contracts.

## New IBLI initiative starting in 2015

IBLI incorporated an asset protection methodology in 2015 to intervene before losses actually occurred. During the January-February 2015, ILRI Kenya sold this new insurance model that would trigger payments for pastoralists to maintain their livestock in the face of severe forage scarcity. This revision to the IBLI contract and recent payouts were largely responsible for a dramatic increase in sales upon its introduction of the January-February 2015 sales period. In that period, IBLI sold 2,616 contracts, which was almost ten-fold increase in sales of the previous August-September 2014 period.

From IBLI's inception in 2010 to March 2015, a total of 7,454 contracts had been sold, covering 16,814 TLUs and with the total insured value exceeding KSH 266 million (USD \$2.95 million). In 2016, IBLI covered 2,510 (2.8%) households in Wajir with 12,550 livestock units and 2,502 (4.2%) households in Turkana with 12,510 TLUs covered. IBLI program has plans to expand to 14 counties in the ASAL regions (Alessandro et al., 2015).

## Kenya Livestock Insurance Program (KLIP)

Launched in October 2015, KLIP was designed to insure the vulnerable pastoral households in the north of Kenya, covering the two counties of Wajir and Turkana, and initially providing insurance for 5,000 households. The model used by KLIP was largely the same as the IBLI asset protection insurance contract that had just been offered by APA and Takaful. The key difference between the two was that KLIP beneficiaries from the outset received free insurance, or a 100% subsidy of the product five Tropical Livestock Units (TLU), while IBLI clients paid for coverage up to three TLU.

## Major Payouts through KLIP after Expansion

In February 2017, severe drought conditions triggered KSH 215 million, about a US\$2.1 million payout by livestock insurance companies to 88 percent of insured house-holds, directly benefiting 12,000 people of the 14,000 KLIP beneficiaries (Tara et al., 2018). This created major impacts on the households, as well as the insurance markets and other markets affected by the large increase in cash transfers.

## Positive effect of KLIP intervention on IBLI market

KLIP intervention helped to boost awareness of IBLI. While KLIP was

4. Index-based weather insurance (index insurance for short) is a newer type of insurance contract for smallholder farmers or pastoralist affected by uninsured covariate weather risks. The index is based on satellite data on forage availability. More specifically, a Normalized Difference Vegetation Index (NDVI) measures the level of "greenness" and pays out when forage scarcity is predicted to cause livestock deaths in an area (Carter et al 2014). For northern Kenya, where livestock rely on vegetation coverage for food, NDVI was a reasonable option.

5. Gross premium: is the total premium paid by the policy owner, and generally consists of the net premium plus the expense of operation minus interest.

6. Incurred claims: An estimate of the amount of outstanding liabilities for a policy over a given valuation period. It includes all paid claims during the period plus a reasonable estimate of unpaid liabilities.

7. Computed from IBLI Marsabit Sample Surveys Panel Data (2010-2015)

8. Lamu, Isiolo, Laikipia, Mandera, Marsabit, West Pokot, Turkana, Tana River, Garissa, Baringo, Samburu, Narok, Kajiado, and Wajir Counties (Federica, 2016).

9. The main livestock species in this region are cattle, camel, and shoats (e.g., goats and sheep). TLU is a standard measure that permits aggregation across species based on similar average metabolic weight (1 TLU = 1 cow = 0.7 camel = 10 goats or sheep).

completely subsidy-based (100%), the model was the same as the IBLI asset protection insurance contract that had just been offered by similar insurance companies. Coinciding with the increase in KLIP awareness, IBLI expanded faster and started to sale a new product in four more counties at the same time KLIP was introduced (Garissa, Mandera, Turkana and Tana River). Pastoralists who had been buying IBLI coverage most often chose coverage for three tropical livestock units (TLUs), the KLIP program would cover it beneficiaries for five TLUs. However, both are far below the country averages of 17 and 12 TLU of livestock herded and owned (Federica,2016).

#### Unintended effects of the KLIP intervention on IBLI

KLIP's 100% subsidy served negatively affected sustainability of index insurance (Federica, 2016 as private insurance companies who are trying to provide this service were crowded out of an already fragile insurance market. Receiving the product for free is neither sustainable from a fiscal perspective, nor a clear strategy for developing an insurance market. Beyond free coverage, the lack of awareness also created confusion as to why pastoralists were receiving the funds. KLIP did not allow for any change in risk decision-making because households were not even informed they were covered.

One of the biggest challenges IBLI is facing is concerning service delivery is the general supporting market environment (Tara et al., 2018). For example, a drought stressed environment makes asset protection insurance payments ineffective for herders to buy water, forage or vaccines for their livestock due to lack of accessible markets. In the same way, huge cash transfers by KLIP, create increased demand to purchase inputs that cannot be immediately satisfied and create dramatic short-run price increases without additional inputs. Overall, little potential benefit is achieved with most of the additional income simply transferred to the providers of inputs and exacerbate the existed problems that pastoralist faced.

The Government of Kenya plans to implement a second phase whereby beneficiaries will be required to contribute ("opt in") to the commercial cost of insurance. The government will provide a 50 percent livestock insurance subsidy for up to 10 TLUs per household (Mahul & Maher, 2017). Although a 50 percent insurance subsidy can lead to an increased level of uptake, it could have an anchoring effect (Federica, 2016). The recent examples of anchoring are the rapid growth in public spending on subsidized insurance in China, India, and the US which demonstrates that once subsidies are implemented, it is very difficult to remove them (Ruth et al., 2014 and Hazell et al.,2017). Therefore, smart subsidies, that take these factors into account, ensure that they do not become a permanent drain on public assets.

#### Smart subsidies

"Smart subsidies" are designed and implemented in ways that provide sustainable social benefits while minimizing distortions by crowded in private sector capital and expertise to manage the insurance risk (Ruth et al., 2014). A subsidy should be designed with a clearly stated and well-documented purpose. It should address a market failure or equity concern and should successfully target those in need with minimum inefficiency.

A related concern refers to the willingness of donors (the main suppliers of funds) and governments to continue to financially support subsidies. Should this support end, due to lack of resources or unwillingness to continue, the market would probably collapse. Smart subsidies require a clear knowledge of why subsidies are being provided and their projected effectiveness (Federica, 2016). This helps guide the appropriate design and targeting of subsidies and gives an idea of how long they are needed in order to determine a clear exit strategy.

#### Key lessons on implementation premium subsidies

One of the challenges in targeting subsidies is to widen access to insurance coverage by identifying those who should be targeted for the subsidy and putting in place a good targeting mechanism as well as clear exit strategies before being implemented. If it is well targeted, subsidized insurance can include the poor and result in

behavior change and have a longer-term positive impact.

Another challenge of using index-based insurance is the imperfect correlation between an insured's actual loss (basis risk) experience and the behavior of the underlying index on which the insurance product payout is based. Individuals can suffer losses specific to them but fail to receive a payout because the index does not trigger. On the other hand, lucky individuals may receive indemnity payments that exceed the value of their losses. This problem can be solved by carefully designed the IBLI contracts, like IBLI-Mongolia, for some exceptional case indemnity payments that are based on mortality rates so that it is possible to maximize its value to the insured households.

As in the case of the Ghana National Health Insurance Scheme (NHIS), premiums must be based on targeted population to reduce costs. Otherwise, benefits can go to individuals that do not actually need them or that are not the priority, Furthermore, having actuarially priced premium help better monitor the risk exposure and administrative cost of the schemes.

#### Policy environment for livestock insurance in Kenya

While a number of policy documents touch on the issue of risk in agriculture and risk management issues in general, none of the policies propose concrete and result-oriented strategies on how to improve the agricultural insurance sector. For instance, the national Agribusiness Strategy 2012 sets the objective to strengthen the range and robustness of insurance schemes for small businesses, and to create awareness and scale up agricultural insurance products by improving data, information infrastructure and improving insurance awareness (ACCI, 2013). However no specific targets are provided



Abdullahi Shandey, Chief Executive Officer, Merti Integrated Development Programme (MID-P) of Isiolo County makes a point during the Kenya Pastoralists Week (KPW) 2018 at the Masai technical Training Institute, Kajiado County

The Kenyan insurance market is governed by the Insurance Act (1984) administered by the Insurance Regulatory Authority (IRA). However, under the current Insurance Act agricultural insurance is not mentioned as a separate type of insurance but is simply subsumed under "miscellaneous". Therefore, no statistics on agricultural insurance are kept within the IRA (ACCI, 2013).

The IRA has been very supportive in recent years concerning the introduction of index-based insurance products. Even though this type of products is currently not explicitly mentioned in the Insurance Act and other relevant documents, the IRA has allowed piloting of products for the benefit of low income farmers and pastoralists as well as closely supervising the progress of the various initiatives currently carried out in Kenya (ACCI, 2013).

The Government of Kenya created an enabling environment by formulating a task force for creating a national agricultural sector insurance program. The task force sought to address the wide range of risks that pose challenges to food security and lays out the potential costs and benefits of developing large-scale agricultural insurance

10. An anchoring effect suggests that recipients rely too heavily on the first piece of information offered to make subsequent judgments going forward.

involving both the public and private spheres (World Bank, 2015). This task force was headed by the Ministry of Agriculture, Livestock and Fisheries and the German Agency for International Cooperation (GIZ). The team set out a document and the accompanying technical analysis, lays out the costs and benefits of developing large-scale livestock insurance that involves both the public and private spheres.

The government also considered supporting the development of a voluntary livestock insurance market beyond fully subsidized coverage for the very poor. The government would foster this market by making sure that insurance providers underwriting the government's coverage, would receive financial assistance for program recipients who may need additional coverage (World Bank, 2015). These additional programs, which would cover the slightly less vulnerable, would be subsidized by the government.

All in all, several index insurance interventions are currently taking place in Kenya, but there is still no broad regulation policy that can ensure even basic safe minimum standards for index insurance contracts. Index insurance is a completely new kind of product and very few regulators in developing economies completely understand them. This lack of understanding has created some unintentional consequences when government does intervene in Kenya's index insurance markets

## Policy recommendations

Government needs to urgently develop a policy guide for index insurance products. This policy should offer guidelines on how to balance out the subsidized index insurance (especially in the livestock sub sector) and the commercially available product. The policy will take into consideration the lessons already learnt by private insurance companies through IBLI project in increasing uptake and to provide the product to all vulnerable pastoralist communities in ASAL counties, clearly identify the roles of the privates' insurance providers, government, NGOs and other Civil Society Organizations (CSOs):

- **IT usage:** Use of the current technological advancement opportunity in Kenya. For instance, cellular phone ownership across cellular phone ownership Kenya has increased from 20 to 90 percent, and the coverage of the network has improved (Tata et al. 2018). This has made it possible to develop tools for agents, e-learning, in the field and for pastoralists who can learn about insurance in general, coverage triggers and receive payments.
- **Demand Creation:** Creating a need for livestock insurance through sensitization and extension campaigns about the product using a variety of games, videos, cartoons and radio broadcasts, by focusing on pastoralists' vulnerabilities and risk exposure. Awareness creation can be done via the area chiefs or, where available, the local Livestock Marketing Associations (LMAs).
- **Complementary Services:** Offering insurance as part of a wider package of services, possibly by combining agriculture insurance with agricultural extension services.
- **Available Inputs:** Provision of input markets with sufficient supplies makes cash insurance payments effective for herders to buy water, forage or vaccines for their livestock during drought periods.
- **Expand Insurance Providers:** In addition to individual agents selling to individual pastoralists, establishing and campaigning sales of the product through aggregators. Aggregators include pastoral cooperatives and other organizations with which large groups of pastoral households are associated.
- **Monitoring and Evaluation:** Advocate for robust M&E programs to assist with the smart subsidy and other policy issues. These programs should be designed and implemented before these programs are begun.

**SNV** started work in Kenya in 1967 with operations mainly in its arid and semi-arid regions. We have since expanded our work to include high potential areas of the country.

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