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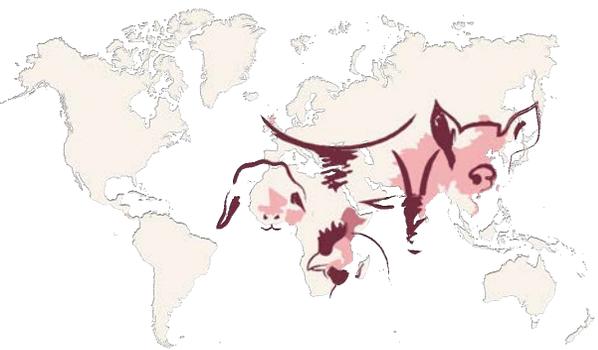


INITIATIVE ON
Livestock and Climate



Innovating and scaling risk reducing measures for livestock keepers in the drylands

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Livestock insurance - what, how, best practices



Challenges and Opportunities in livestock sector

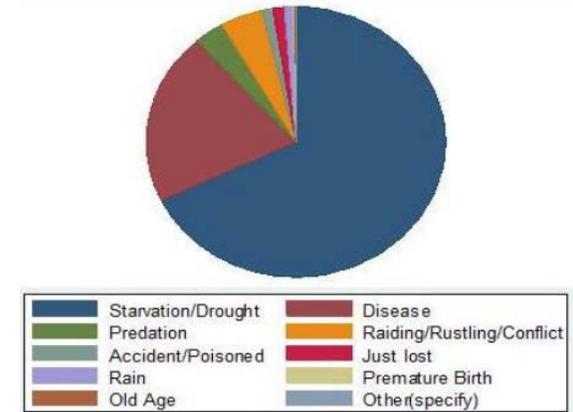
- ❑ **More than 1 billion people** dependent on livestock face multiple climate hazards
- ❑ Major risks are related to **markets, climate, storage, inputs, pests and diseases**
- ❑ **A fraction of climate investment** is allocated to research or development for livestock-based systems
- ❑ **Provision of market-based financial solutions** that may positively influence household behaviour and welfare
- ❑ **Innovation through financial and digital technologies** in fragile and complex environments
- ❑ **Context specific, climate informed agro-advisories** for tactical management scaled with ICT



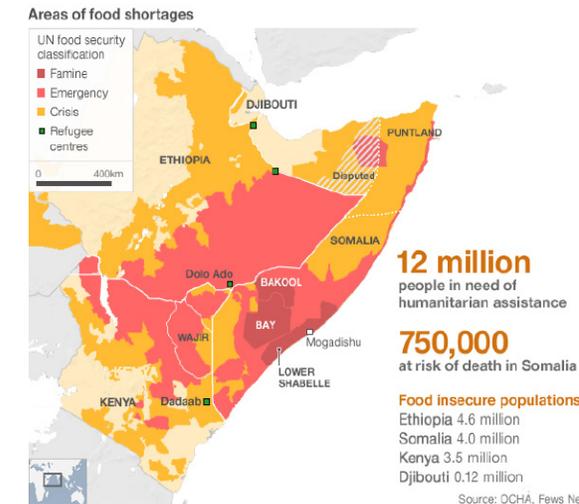
Vulnerable and the Marginalised

- ❑ **75% of the Sahel is arid and semi-arid land** with over 20 million pastoralists travelling with livestock in the dry seasons
- ❑ Pastoralism plays a critical role in protecting marginalized pastoralist communities' nutritional security
- ❑ **> 30 million pastoralists** in the Horn of Africa and are responsible for 75% of Africa's milk and more than half of its meat
- ❑ Livestock products and sales of **livestock are 40% of income** for average household
- ❑ **75% of livestock losses are due to drought** - 2020-2022 drought recorded 6.9 million people in need for humanitarian assistance
- ❑ **Innovative financial schemes, climate risk tools for tactical agronomic and livestock management** can be effective risk reducing measures

Causes of Livestock Mortality
Marsabit, Kenya, 2009-2012



Source: Jensen et al. (2014)



What is and why index-based insurance ?

Conventional insurance

- Loss → Claim → Verification → Indemnity
- Very high transactions costs for verification, etc.
- Moral hazard



Index-based insurance

- It does not insure individual losses
- It is based on an “index” strongly correlated with impacts (no claims)
- The Index is objectively verifiable, available at low cost



Index Insurance is a variation on traditional insurance

1. Indicator (e.g. rainfall, field data, NDVI, etc.)
2. Index (correlated with the risk)
3. Payouts/Indemnities

**WHY SOME DESIGN WORK?
AND SOME OTHERS NOT?**

The Index Based Livestock Insurance scheme



1. Policies are purchased, either by pastoralists themselves or by Government on their behalf



2. During the season, satellites monitor the greenness of the ground („Normalized Difference Vegetation Index“, NDVI) and thus the availability of forage for livestock



3. If the greenness index falls below a pre-defined threshold, this indicates that no forage is available for livestock

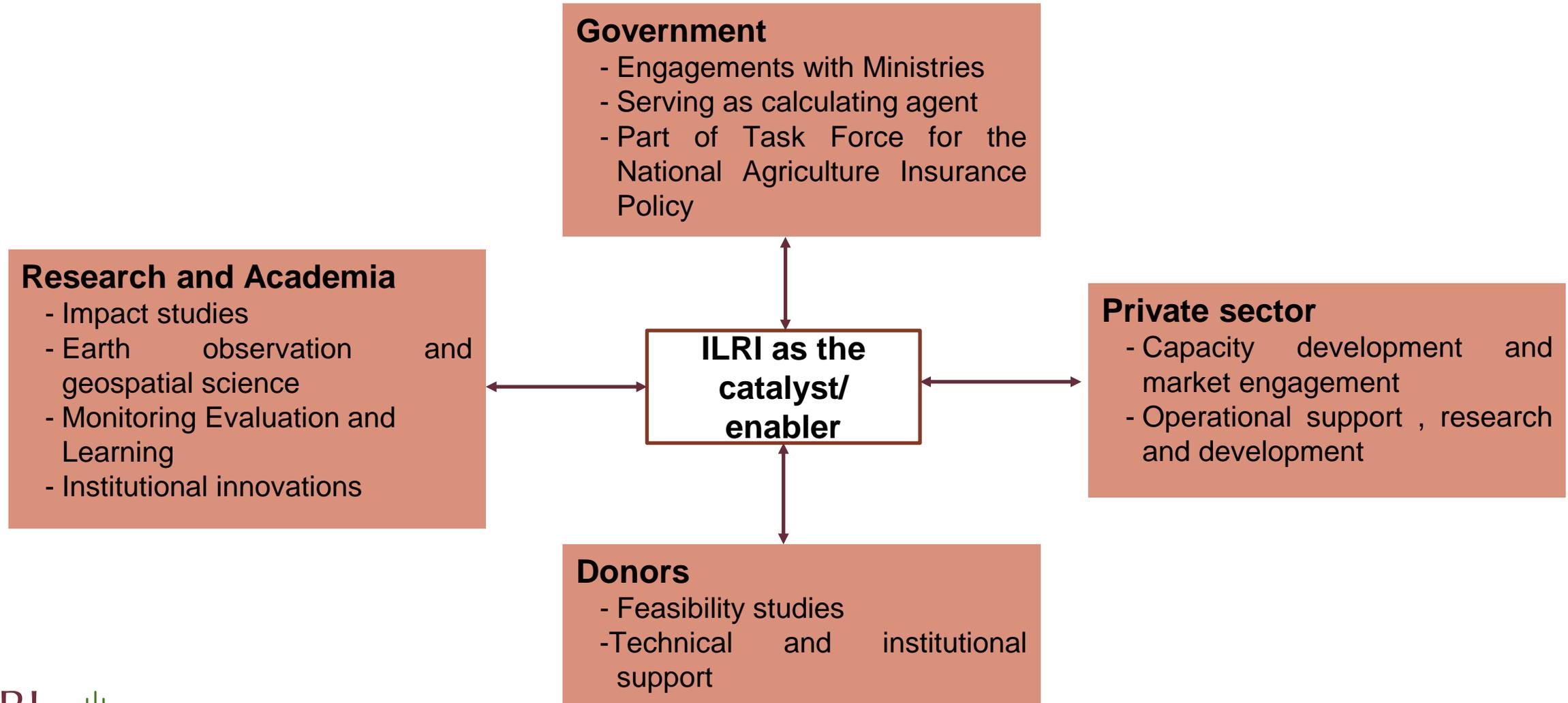


4. Using mobile payment systems, the insurance company issues a payout to the insured pastoralists in the area where the lack of forage was detected

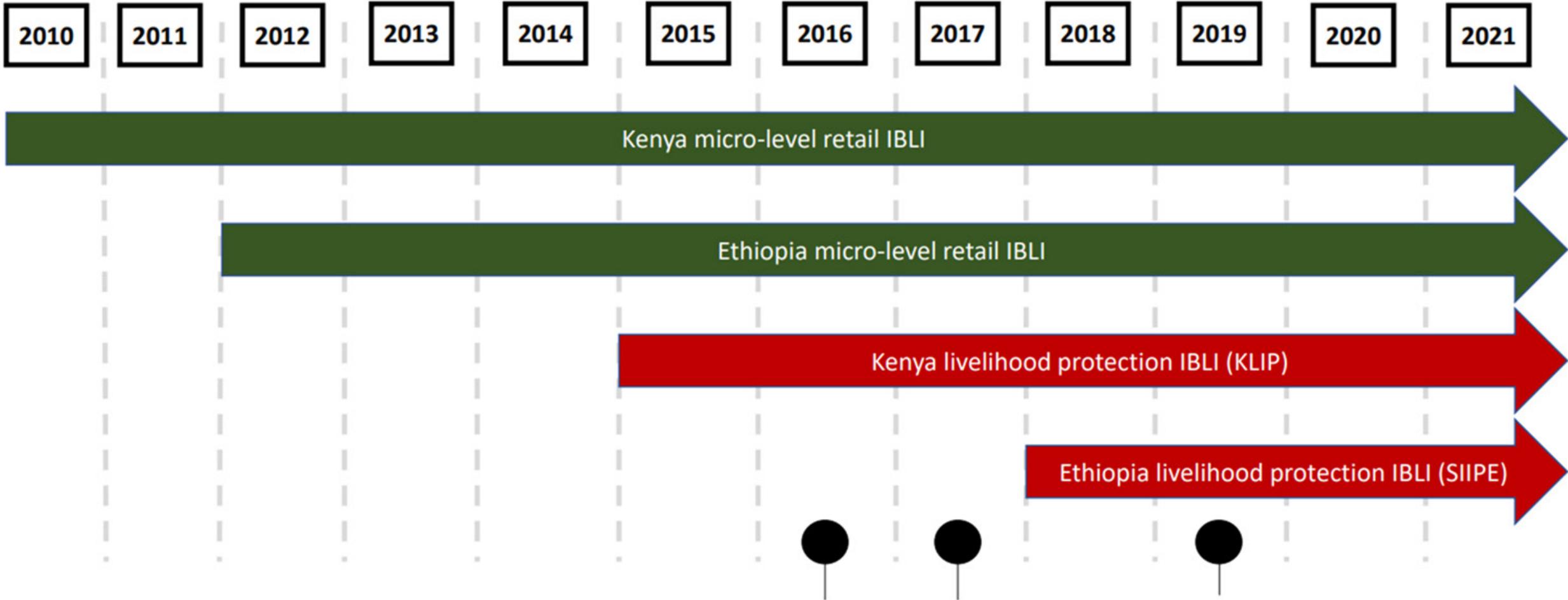


5. As payouts are issued already during the season, pastoralists can purchase fodder and/or veterinary services, keeping their animals alive

Areas of interventions for advancing Risk Financing so far



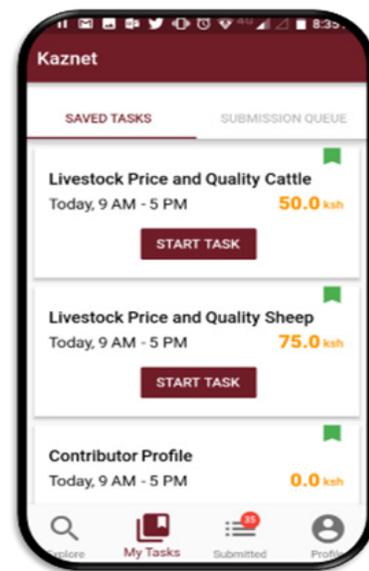
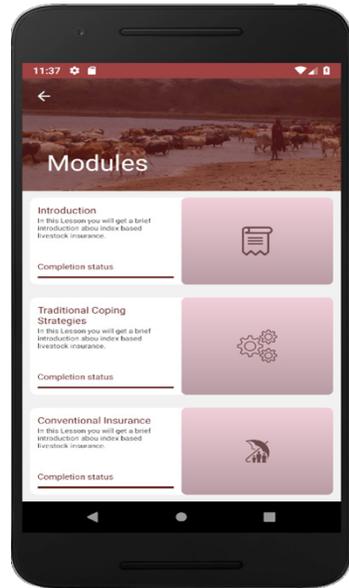
Livestock insurance over time



IGAD workshops on livestock insurance in Kampala (2016) and Khartoum (2017), Addis Ababa conference in 2019

Source: Lung and Stutly, 2021 DIRISHA Workshop

Digital technology to support risk reducing measures



BANISA
LONG RAINS LONG DRY

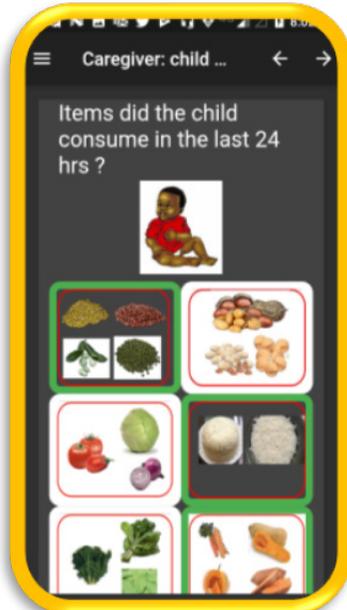
2015

COPY VALUES TO INPUT

Enter NDVI Values for Each Dekad

Mar 1-10	0.24	0.24
Mar 11-20	0.25	0.25
Mar 21-31	0.29	0.29
Apr 1-10	0.32	0.32
Apr 11-20	0.37	0.37
Apr 21-30	0.41	0.41

IBLI Unit Calculate



ILRI

My Courses > Index Based Livestock Insurance for Sub-Saharan Africa (Ethiopia)

MODULE 4: Index-Based Livestock Insurance and Takaful

Step 5 (of 10) Vegetation as an Index

IBLI/T Key Concepts

- Payment based on drop in vegetation index, **not** livestock deaths
- Payments made to **all** policyholders / participants in affected areas
- Payment automatic if index drops below a certain point
- No need to submit paperwork or prove losses

Photo by Jaspreet Kindra / IRIN

3:41 / 4:21

Current partners and ongoing activities



- **Kenya:** Family Insurance with women's savings groups, sentinel zones, insurance and conflict
- **Ethiopia:** Scaling beyond Borena region - insurance and conflict, insurance and resilience building, sentinel zones, encouragement designs for IBLI diffusion.
- **Sudan – Feasibility and proof of concept**
- **Somalia:** Product design, stakeholder engagement, policy advocacy
- **Senegal –** scoping for risk financing solutions and sentinel zone



Behavioral change and welfare benefits

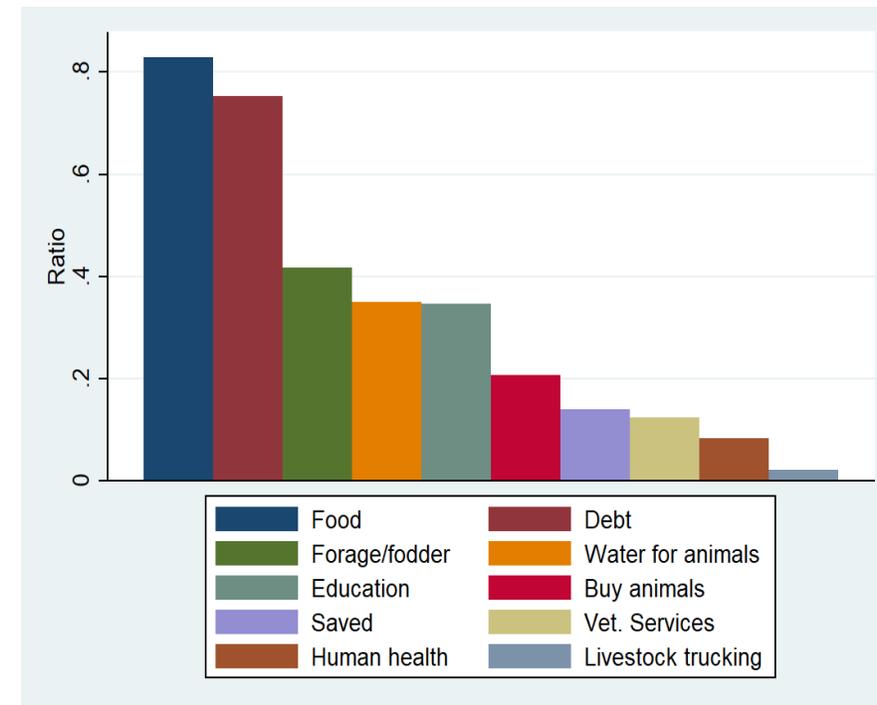
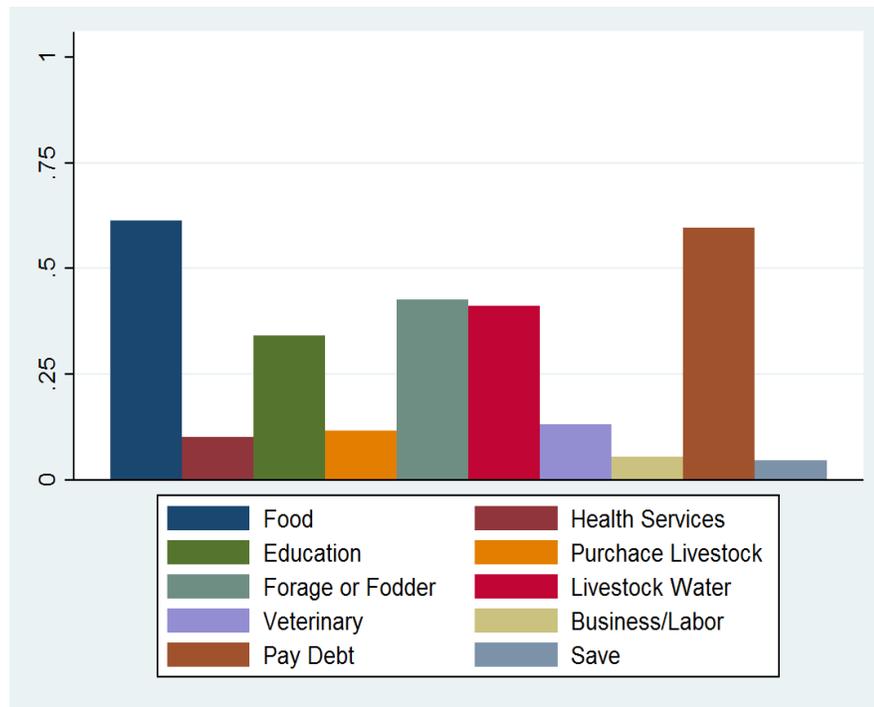
- ❑ 100,000+ policies sold in Kenya and Ethiopia –scaling in Somalia, Sudan with demand in West Africa
- ❑ >200,000 people covered under livelihood protection livestock insurance programs (KLIP, SIPE, DRIVE)
- ❑ Women account for 43% of the policy holders
- ❑ 36% reduction in likelihood of distress livestock sales
- ❑ 25% reduction in likelihood of reducing meals as a coping strategy, especially (43%) among those with small herds
- ❑ Major payouts in 2011/12, 2014/15, 2016/17, 2018/19 and 2021-23 – US\$ 11 million



Evidence of Impact and Value

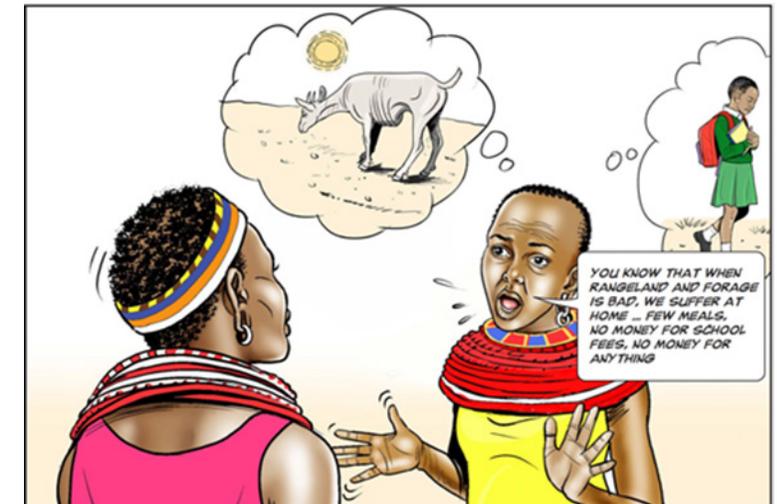
Pastoralists' access and use of indemnity payouts

Is there anything that you spent money on because of the payout that you could not have done so without it?



The BOMA graduation program in Northern Kenya

- BOMA's REAP program builds tangible material assets and intangible psychological assets for deeply poor women in Kenya's ASAL counties
- Impacts evaluation of REAP after 4 years shows:
 - 320% increase in women's productive assets
 - 32% increase in family cash income
 - 510% increase in women's savings

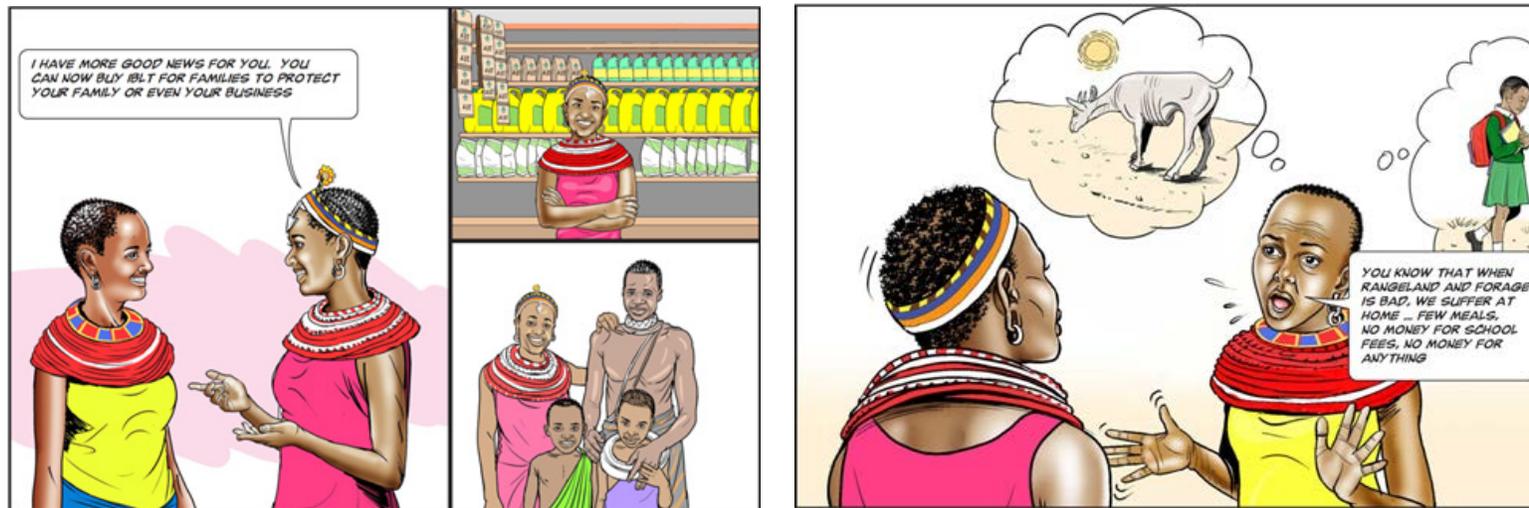


Livestock insurance as a complement to BOMA's asset building

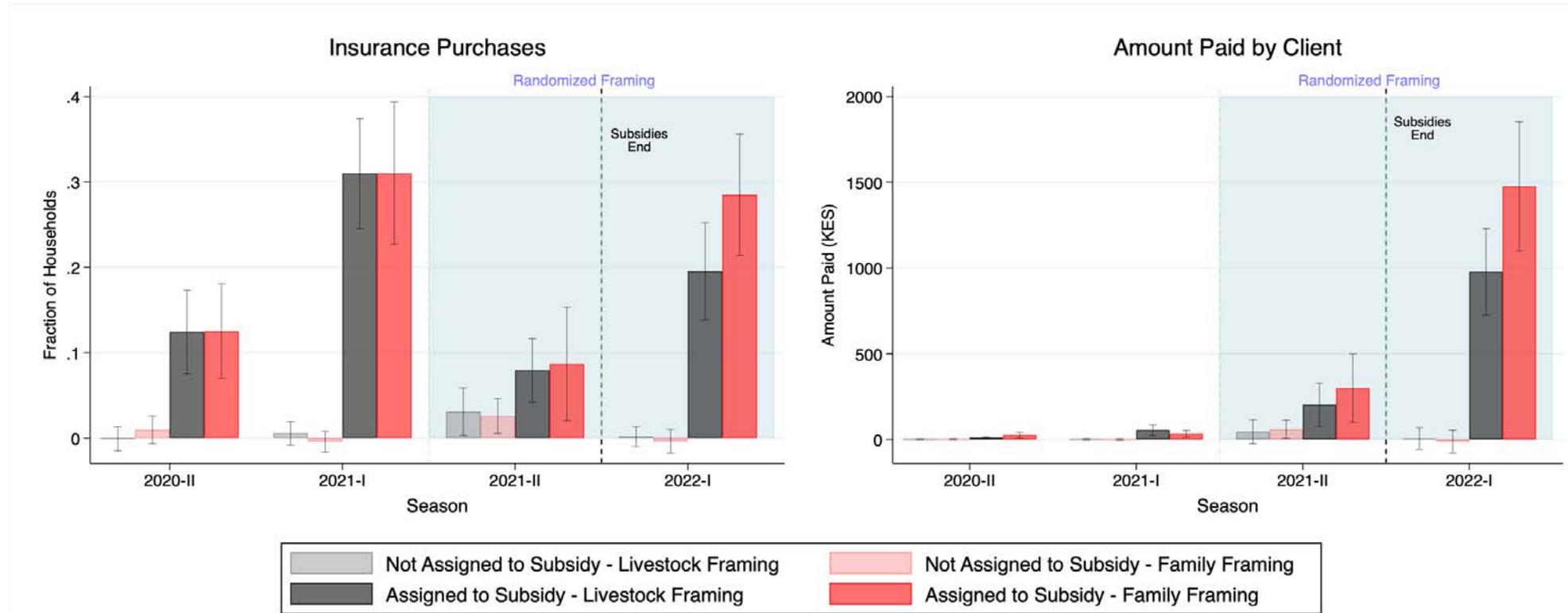
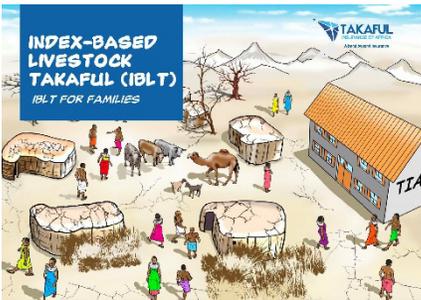
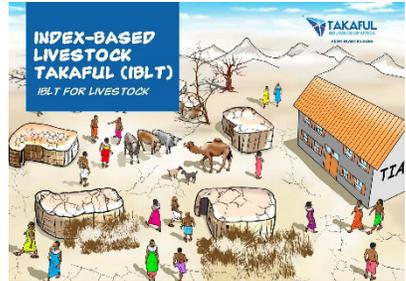
- ❑ Can these impressive gains for women survive the next climate shock
- ❑ Although there is a strong case for coupling asset building with insurance-based asset protection, can this potential be realized with the livestock insurance
- ❑ First level problem: economic activity that can be directly indexed (forage availability on the open rangelands) is tied to what is constructed as a male activity
- ❑ Is rangeland relevant to women's responsibilities and can it be made salient to them?

Linking livestock insurance to women's risks and responsibilities

- ❑ Two approaches:
 - Standard cattle insurance sold in livestock units
 - A novel approach that emphasized women's indirect exposure to rangeland risk and benefits of buying "household or family" insurance that pays offs when rangeland conditions are bad



Family unit insurance framing has large impact on insurance demand



When insurance speaks to women’s needs, and provides a chance to experiment, impacts can be large

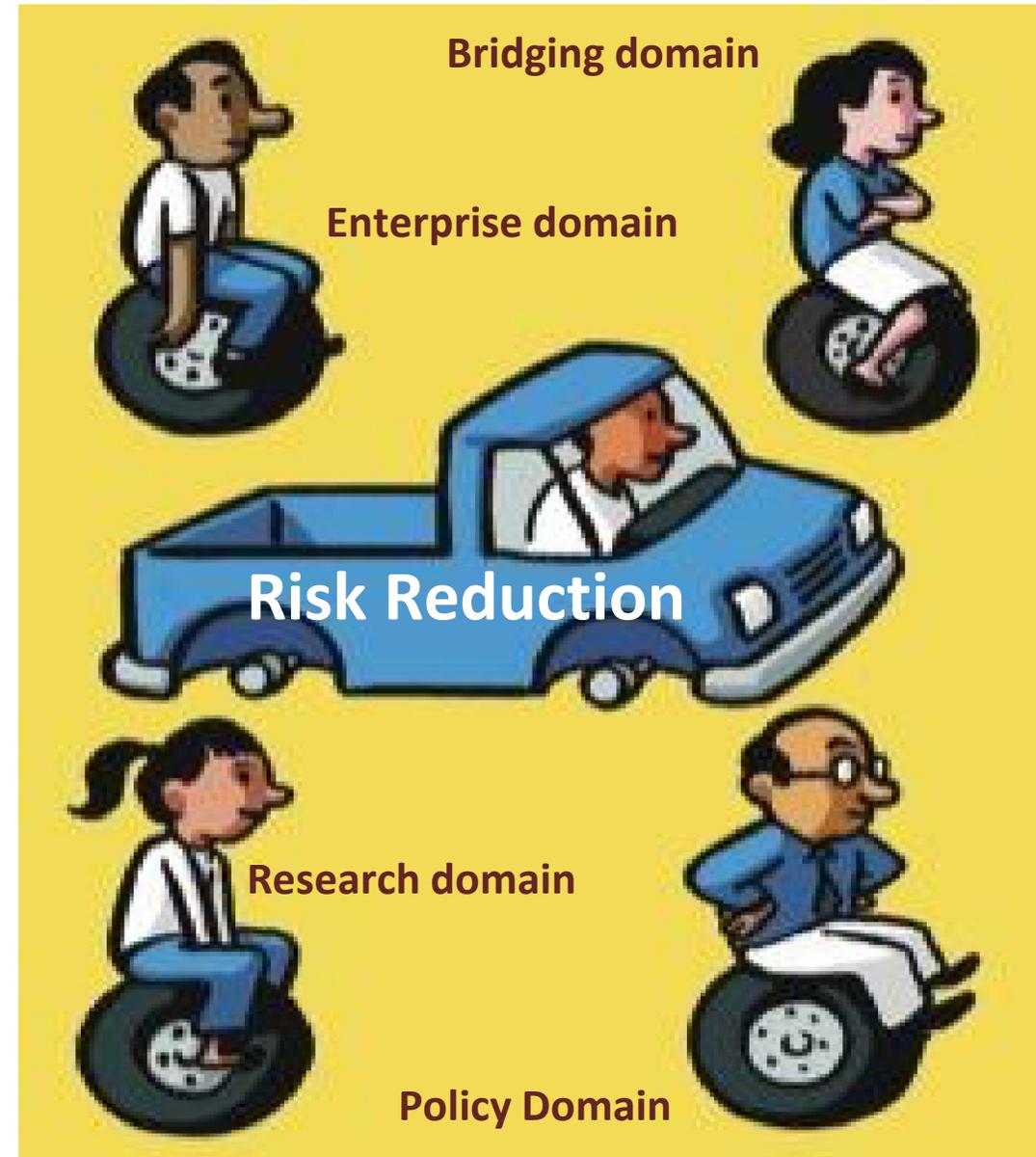
Food for thought- risk financing solutions through resilient market systems

- ❑ **Livestock systems are central to a resilient, equitable, and habitable future in the drylands of the African continent**
- ❑ **Main areas of expenditure** - (i) consumables like food and firewood, school expenses, ceremonies and emergencies and (ii) input during dry seasons (e.g., water and feed), livestock medicine and veterinary services
- ❑ **Designing financial services which speaks to the context and environments of the drylands** – requires provision of complementary services and linking to the broader livestock value chain
- ❑ **Acknowledging that challenges/barriers just do not exist on the demand side but also on the supply side** – do financial service providers really want to go with innovations which are fitting the drylands and not just look for the ‘quick - wins’



Enablers and Constraints to Risk Reducing solutions

- Understanding what needs to be in place to achieve the desired outcomes
- Actors play different roles in the domains based on their individual interests and comparative advantage
- Broader goal is achieving development outcomes - food security, inclusivity, reduced poverty and resilience



□ **Strengthening of institutional mechanisms**

- Innovations around credit scoring, finding alternatives to bank accounts
- Requirement of investments for intensive market research, extension and education for demand driven products
- Need for investment in offering complementary services, development and understanding of inputs and services markets – access and availability

□ **Investing in innovative digitally-enabled decision support tools**

- Capacity development and assessment of the service delivery mechanisms to enable better early warnings and advisories
- Capacity enhancement of the private sector - enabling market development in the extensive dryland systems

□ **Better understanding of gender and youth dynamics in decision making**

- Ensure greater social inclusion and strengthening of existing structures rather than eroding them through interventions

□ **Policy and institutional infrastructure**

- Creating an environment for a conducive PPP arrangement – attracting more private players with government support



Thankyou

