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Bundling index-based livestock insurance with animal health services for enhanced resilience of pastoralists in Kenya: An assessment of service providers' capacity and prioritized health services

September 2026

Report



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Abstract

Bundled Index-Based Livestock Insurance (BILI) combines index-based livestock insurance (IBLI) with livestock productivity-enhancing inputs and services to address the multiple risks faced by pastoralist households in Kenya's drylands. By integrating animal health services with insurance, BILI seeks to improve access to essential livestock health services, strengthen livestock productivity and resilience, and potentially increase demand for insurance. This study mapped animal health service providers in the drylands of Kenya to assess their geographical distribution, operational capacity, willingness to participate in BILI, and the animal health services and challenges most relevant to pastoralist livestock keepers. The assessment found that animal health service delivery is predominantly private sector driven, with private veterinary practitioners and agrovet shops concentrated mainly in major trading centers, while informal and mobile providers serve remote pastoral areas. Some formal providers also extend services to mobile livestock keepers and remote markets. Provider capacity varied considerably in terms of staffing, availability of veterinary medicines and equipment, storage facilities, working capital, and ability to conduct outreach services. Transport constraints were the most frequently reported operational challenge, affecting more than four-fifths of service providers, while more than two-thirds reported financial constraints. Other challenges included inadequate storage facilities, insecurity, declining demand, and shortages of veterinary supplies. The findings provide important evidence for designing the animal health component of BILI. Successful implementation will require strategic selection and strengthening of service providers, improved last-mile delivery mechanisms, reliable veterinary medicine supply chains, timely reimbursement, and clear communication on the insurance and animal health package. Establishing an accessible and sustainable network of animal health providers could strengthen the delivery of bundled services while improving pastoralists' access to livestock health interventions and supporting the broader objectives of BILI.

Introduction

Pastoralism remains the dominant economic activity in the drylands of Kenya, playing a critical role in food security, income, and resilience. However, livestock productivity in pastoralist systems remains low. Recurrent droughts, pests, and diseases compounded by limited access to animal health services are identified as major constraints to improved livestock productivity. Despite these challenges, the growing demand for animal-source protein driven by population growth, urbanization, rising incomes, and changing consumption patterns presents an opportunity for the transformation of pastoral systems to meet this demand and improve livelihoods.

Addressing drought and animal health challenges requires approaches that minimize production risks while increasing livestock productivity through improved access to quality inputs and services. Index-Based Livestock Insurance (IBLI) is an important risk management tool for pastoral households. IBLI provides financial protection against drought risk and reducing negative coping strategies, thereby supporting climate resilience (Jensen et al., 2017; Janzen and Carter, 2019). However, livestock insurance alone may not be sufficient in addressing the layered risks affecting livestock production. This is particularly the case because while IBLI offers protection against covariate risk, it is not designed to (directly) manage idiosyncratic risk. Similarly, livestock keepers typically manage idiosyncratic risks through animal husbandry practices including health care. However, such practices are limited in their ability to address covariate risks, which can be thought of as livestock mortality driven by a drought or another common event affecting many households over large geographical areas at once. Therefore, bundling index insurance with solutions that manage idiosyncratic risk offers an opportunity to create comprehensive products with greater resilience benefits than when offered in isolation (Shikuku et al., 2026).

Bundled index-based livestock insurance (BILI) is designed to combine IBLI with livestock productivity-enhancing inputs and services to address the multiple risks commonly faced by households in the drylands. Providers of productivity-enhancing inputs can support the last-mile delivery of the inputs and services bundled with IBLI, thereby improving access to essential inputs and services, improving livestock productivity and resilience, and promoting greater uptake of IBLI. This can improve the demand for insurance by reducing the cost of last-mile delivery of insurance, thereby increasing affordability (Miranda and Farrin 2012). Further, diseases such as foot and mouth, contagious bovine pleuropneumonia, and peste des petits ruminants tend to be common during the dry season mainly because livestock come together in grazing and watering areas. Animal health interventions in the form of vaccination and treatment can help protect the livestock during periods of mild drought, while insurance provides cover against severe drought (Shikuku et al., 2026). At the same time, investment in livestock health is expected to improve productivity and the quality of the livestock sold. This can increase income among pastoralists, which can help generate effective demand for insurance (Shikuku et al., 2026).

To implement an innovation in which IBLI will be bundled with animal health services, mapping of service providers was conducted in the drylands of Kenya. The mapping exercise entailed identifying and characterizing service providers to develop a clear understanding of the actors involved in delivering livestock inputs and services, their coverage, and capacities. The output of the mapping exercise was intended to support the International Livestock Research Institute (ILRI), together with insurance partners, in identifying reliable service providers to support the implementation of Bundled Index-based Livestock Insurance (BILI).

Objectives

1. Assess the geographical distribution of animal health service providers.
2. Assess the capacity of service providers to respond to demand and their willingness to participate in the BILI project.
3. Identify prioritized animal health challenges and the services mostly sought by pastoralists.

Methodology

The study was carried out in the dryland areas of Kenya, where pastoralism is a major source of livelihood. The study covered 32 wards distributed across three counties, namely Isiolo, Marsabit, and Samburu. We visited livestock input service providers at their points-of-sale and conducted face-to-face computer-assisted personal interviews. Before visiting the service providers, the research team identified a field team at the ward level who provided comprehensive lists of active service providers in each ward. The total number of service providers interviewed was 166: 60 in Isiolo, 62 in Samburu, and 44 in Marsabit (Table 1). The data collected included service providers' profile, main services offered, services availability and their demand, geographical coverage, and capacity and readiness to partner with the BILI project.

Service providers for participation in the BILI project were selected using criteria that assessed their capacity and motivation to implement the project. We considered willingness to participate, relevant experience, local demand for animal health services, financial stability, and regulatory compliance. We assessed willingness to participate qualitatively using a Likert scale ranging from 0-10, with 0 indicating complete lack of willingness to participate in the BILI project and 10 indicating complete willingness to participate. A score of 5 is considered moderate willingness to participate. Therefore, the participation threshold was set at 6 to ensure service providers demonstrating credible commitment were selected. Over 80% of the respondents had a score of 6 and above. Only those service providers meeting or exceeding this threshold were considered alongside the remaining selection

criteria. Data was analyzed descriptively. About 28% of service providers mapped in Kenya indicated they have engaged development partners in supplying subsidized animal health services.

Table 1. Criteria for selecting service providers

Variable	Measurement
Demand	Likert scale 0-10
Participated in a similar initiative before	Yes = 1; 0=No
Willingness to participate	Likert scale 0-10
Coverage	Area of coverage in km

Table 2. Sample size of service providers mapped

County	No. of locations	No. of Service providers
Marsabit	25	44
Isiolo	21	60
Samburu	20	62
Total	66	166

Results

Distribution and structure of animal health service providers in Kenya

Animal health services are delivered by the private sector, with the government primarily playing a regulatory role and mass vaccinations against major disease outbreaks. Common animal health services include clinical (diagnosing and treating sick animals), advisory, routine vaccinations, drug sales (antibiotics, dewormers, and acaricides for endoparasite and ectoparasite control), and basic medical equipment such as needles and syringes.

Private veterinary practitioners offer clinical services and are also involved in drug sales. Agrovet shops are mainly involved in the selling of drugs. Both the private veterinary practitioners and the agrovet shops are concentrated in the main trading centers. The informal mobile drug vendors operate in remote areas and markets. However, some formal veterinary practitioners and agrovet shops indicated that they also offered services to reach the mobile livestock keepers and remote markets.

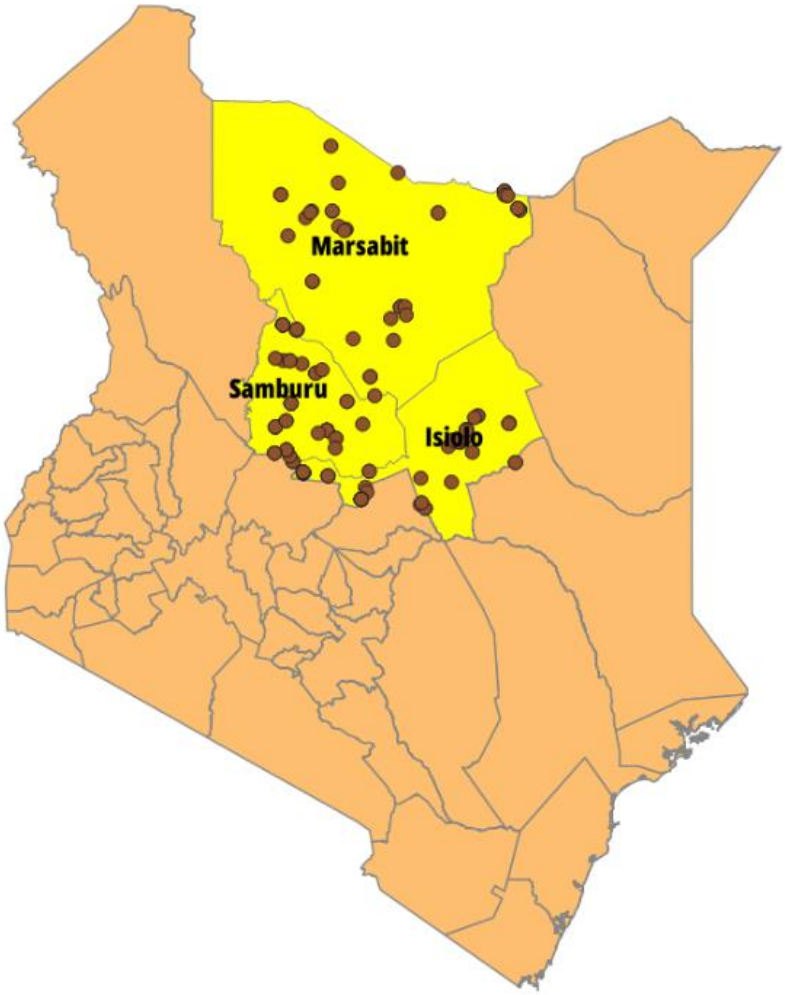

Figure 1. Distribution of animal health service providers in Kenya

Understanding the capacity of service providers in Kenya

The capacity of the service providers assessed included technical capacity, demand, geographic cover, and the financial ability to reliably deliver the services to the pastoralist households. To make sure that the technical capacity of the service providers is well assessed, we relied on the recommendation of our field team to list active input/service suppliers and verified during the site visits. Other indicators considered were the number of years the business has been in operation (average of 9 years), range of quality services offered, and their qualifications.

Most of the service providers indicated they could meet the demand with over 75% having a score above 5 (1-10 score). The service delivery model used by most of the service providers ensured better reach. While most of the service providers operated in fixed locations, such as agrovets, several of them offered outreach services using motorbikes or leveraging on the market days, extending their reach beyond their physical locations to more remote areas. Willingness to participate and the prior engagement of the service providers with similar initiatives was assessed was also assessed. Understanding the capacity of the service providers is critical in the design and implementation of BILI.

Challenges affecting business operations in Kenya

The service providers identified transport constraints as the most significant challenge affecting their businesses; more than four-fifths of the respondents reported this constraint. This finding underscores the challenge of reaching mobile pastoralists in remote expansive rangelands with poor infrastructure. More than two-thirds of the respondent service providers indicated that financial constraints were the second most significant challenge. This finding suggests that there is limited access to working capital and credit. Other important constraints include lack of storage facilities, insecurity, declining demand, and supply shortage (Figure 2).

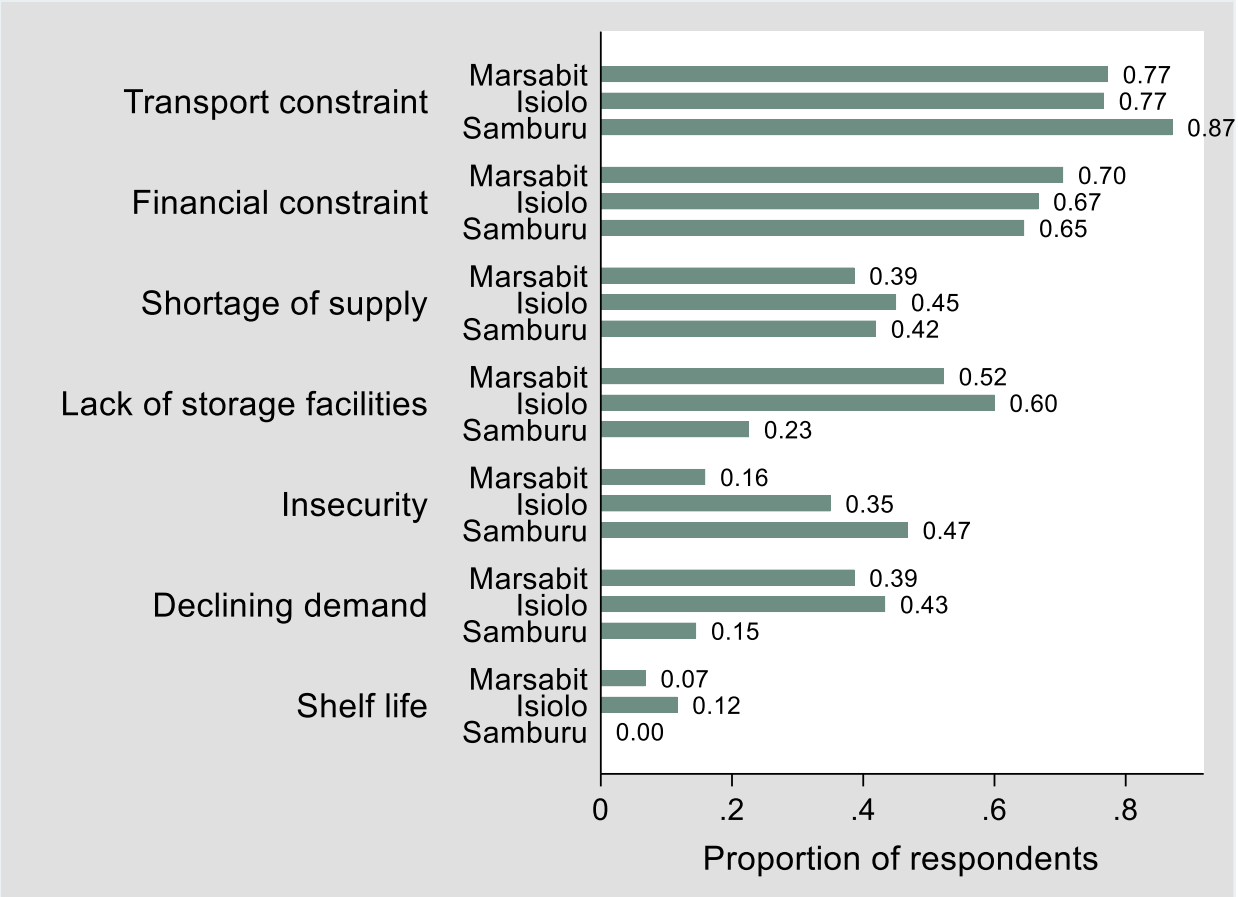

Figure 2. Challenges affecting businesses in Kenya

Support required by service providers in Kenya

Many service providers indicated that they needed support to implement the project more effectively (Figure 3). Specifically, they reported needing training, working capital, storage, transport, and stocking. Most animal health providers face limited training capacity, insufficient storage facilities, weak market linkages, and inadequate working capital. Unlocking capital flow will help service providers stock quality drugs and guarantee a constant supply, while easing transportation challenges will ensure reliable supply even in remote areas, thereby increasing the affordability of veterinary products.

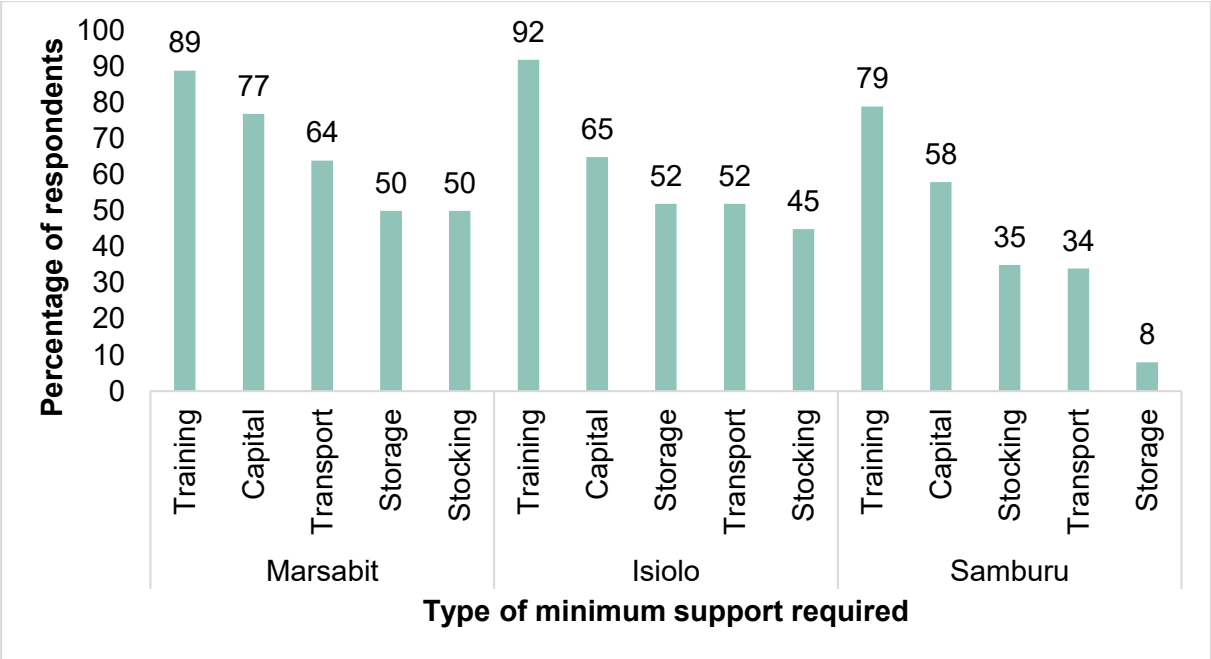

Figure 3. Support required for effective participation in the BILI project

Prioritized animal health challenges in Kenya

Tables 3, 4, and 5 present the results of the prioritized animal health challenges in the three counties. There are important differences across the counties in the prioritized animal health challenges. The most serious challenges in Isiolo county include Contagious Caprine Pleuropneumonia (CCPP) disease, ticks, and worm infestations. In Samburu, ticks, worms, and Peste des petits ruminants (PPR) ranked highest. Service providers in Marsabit ranked PPR, CCPP, and Foot and Mouth Disease (FMD) as the most serious animal health challenges.

Table 3. Common pests and diseases in Isiolo County

Pest and Diseases	Season	Rank	Comment
Contagious Caprine Pleuropneumonia (CCPP)	Onset of the wet season	1	Prevalent in goats and may recur if preventive measures are not taken.
Ticks	Dry season	2	Ticks transmit many diseases, including East Coast Fever. Tick-borne diseases often become apparent during and after the rainy season
Worms	Wet season	3	Also common in the dry season, but the conducive environment is during the cold season
Additional pests/diseases			
Foot and Mouth Disease (FMD)		4	Recur with episodes of outbreaks. Common during periods of increased animal movement.
Peste des petits ruminants (PPR)		5	
Trypanosomiasis (Transmitted by Tsetse Flies)			Common in Kinna

Table 4. Common pests and diseases in Samburu County

Disease/Challenge	Season	Rank	Comment
Tick Infestation	All seasons	1	The most common livestock health challenge contributes to the transmission of tick-borne diseases such as East Coast Fever.
Worm Infestation	Wet season	2	Increased prevalence due to favorable environmental conditions for parasite development.
PPR (Peste des Petits Ruminants)	Wet season / All year round	3	Common among sheep and goats; major cause of livestock mortality.
Additional pests/diseases			
CCPP (Contagious Caprine Pleuropneumonia)	Wet season / All year round	4	Primarily affects goats and can cause significant losses.
East Coast Fever (ECF)	All seasons	5	Associated with tick infestation.
Foot and Mouth Disease (FMD)	Wet season	6	More common during periods of increased livestock movement and congregation.

Table 5. Common pests and diseases in Marsabit County

Common Diseases	Season	Rank	Comment
PPR	All season	1	PPR was consistently identified as the most prevalent disease across all sub-counties and occurs throughout the year. Given the importance of goats and sheep in pastoral livelihoods, PPR remains a major threat to livestock productivity and household resilience.
CCPP	Wet season	2	Animal movements increase and disease transmission is facilitated by closer animal contact.
FMD	Wet season	3	FMD was also identified as a major disease affecting livestock, particularly during wet seasons when livestock congregate around grazing and water points.
Additional pests/diseases			
Tick infestation	Wet season	4	Tick infestations and internal worm burdens were particularly common in Saku and other areas during rainy seasons, highlighting the importance of parasite control services.
Worm infestation		5	

Prioritized animal health services in Kenya

Table 6. Prioritized animal health services sought by pastoralists

Animal Health Services	Rank	Classification	Season most demanded	Comment
Panel A: Isiolo County				
Tick and ectoparasite control	1	Parasite control	Dry season	
Deworming	2	Deworming	Rainy season	
Clinical and outpatient treatment	3	Essential outpatient treatment	All seasons	
Vaccination services	4	Vaccination	Before the onset of the rainy season	
Antibiotic treatment	5	Essential outpatient treatment	Rainy season	
Panel B: Samburu County				
Antibiotic treatment	1	Essential outpatient treatment	All seasons	Most for the treatment of CCCP
Ticks control	2	Parasite control	All seasons	
Deworming	3	Deworming	Rainy season	
Vaccination	4	vaccination	Specific season	During outbreaks for preventive measures
Panel C: Marsabit County				
Outpatient treatment	1	Essential outpatient treatment	All seasons	Bacterial infection, respiratory illness, common livestock ailment
Deworming	2	Deworming	Onset of rain when	
Ectoparasite control	3	Parasite control	Wet season	Mostly tick control
Vaccination	4	vaccination	Specific season	Mostly against PPR, CCPP. FMD is mainly done by the government

Market prices of commonly used animal health products

Table 7. Prices of animal health products in Isiolo County

Product Category	Product name	Unit Size	Price (KES)
Antibiotic	Oxytetracycline 10%	100 ml	200
	Tylosin	100 ml	450
	Penistrip	100 ml	500
Acaricides (Tick Control Products)	Duodip	100 ml	200
	Amitraz	100 ml	500
	Utradip	100 ml	250
	Bye-Bye	100 ml	500
Dewormers	Albendazole 10%	1 litre	800
	Albendazole 2.5%	1 litre	300
	Levamisole 3%	1 litre	1500
	Levamisole 1.5%	1 litre	350

Table 8. Prices of animal health products in Samburu County

Product Category	Product	Unit Size	Price (KES)
Antibiotic	Oxytetracycline 10%	50 ml	150-200
	Oxytetracycline 10%	100 ml	250-300
	Oxytetracycline 10%	500 ml	600
	Tylosin	50 ml	450
	Tylosin	100 ml	650-750
	Penistrip	50 ml	400-750
	Penistrip	100 ml	550-600
Acaricides (Tick Control Products)	Duodip	100 ml	150-200
	Amitraz	100 ml	500
	Utradip	100 ml	250
	Bye-Bye	40 ml	150-200
	Bye-Bye	100 ml	300-350
	Pyramix	60 ml	250-300
	Alpha	100 ml	300-400
	Alpha	250 ml	600-700
	Tvermic	10 ml	100
	Tvermic	50 ml	250
	Tvermic	100 ml	500
	Gladiator	100 ml	400
	Gladiator	250 ml	600
Dewormers	Diamond	125 ml	300-400
	Diamond	500 ml	850 -1000
	Diamond	1 l	1500-1800
	Para Kill Super	150 ml	250-300
	Para Kill Super	500 ml	650-700
	Para Kill Super	1liter	1200-1400
	Ivermex	150 ml	250-300
	Ivermex	500 ml	650-700
	Ivermex	1liter	1200-1300

Table 9. Prices of animal health products in Marsabit County

Product Category	Product name	Unit Size	Price (KES)
Antibiotic	Oxytetracycline 10%	50 ml	150-300
	Oxytetracycline 10%	100ml	200-500
	Oxytetracycline 10%	250ml	500-800
Acaricides (Tick Control Products)	Bye-Bye	100 ml	350
	Bye-Bye	250 ml	700
	Bye-Bye	500 ml	1400
	Bye-Bye	1000 ml	2800
	Novtraz	100 ml	200
	Novtraz	250 ml	600
	Novtraz	500 ml	1200
	Novtraz	1000 ml	2400
Dewormers	Albendazole 10%	100 ml	200
	Albendazole 10%	500 ml	500
	Albendazole 10%	1liter	800

Recommended dosage of treatments

Table 10. Recommended dosage in Isiolo County

Product Category	Product	Dosage/Mixing ratio	Duration
Antibiotic	Oxytetracycline 10%	1ml/10kg body weight	3-5 days
	Tylosin	1.5/20kg bodyweight	3-5 days
	Penistrip	1ml/20kg bodyweight	3-5 days
Control Products	Duodip	20 ml/20litres of water	Repeat after 1 week
	Amitraz	20 ml/20litres of water	Repeat after 1 week
	Utradip	20 ml/20litres of water	Repeat after 1 week
	Bye-Bye	20 ml/20litres of water	Repeat after 1 week
	Pyramix	20ml/20litres of water	Repeat after 1 week
Dewormers	Albendazole 10%	1ml/10kg	After 3 months
	Albendazole 2.5%	1ml/10kg	After 3 months
	Levamisole 3%	1ml/10kg	After 3 months
	Levamisole 1.5%	1ml/10kg	After 3 months

Table 11. Recommended dosage in Samburu County

Product Category	Product	Dosage/Mixing ratio	Duration
Antibiotic	Oxytetracycline 10%	1ml/10kg body weight	3-5 days
	Tylosin	1.5/20kg bodyweight	3days
	Penistrip	1ml/20kg bodyweight	3days
Control Products)	Duodip	20 ml/20litres of water	Repeat after a week or after 2weeks
	Amitraz	20 ml/20litres of water	Repeat after a week or after 2weeks
	Utradip	20 ml/20litres of water	Repeat after a week or after 2weeks
	Bybu	20 ml/20litres of water	Repeat after a week or after 2weeks
	Double tick	20ml/20litres of water	Repeat after a week or after 2weeks
Dewormers	Albendazole 10%	1ml/10kg	After 3 months
	Albendazole 2.5%	1ml/10kg	After 3 months
	Levamisole 3%	1ml/10kg	After 3 months
	Levamisole 1.5%	1ml/10kg	After 3 months
	Diamond	10ml/50kg bodyweight	After 3 months

Table 12. Recommended dosage in Marsabit County

Product Category	Product	Dosage/Mixing ratio	Duration
Antibiotic	Oxytetracycline 10%	5ml/10kg body weight	3 days
Acaricides (Tick Control Products)	Bye-Bye 12.5%	40 ml/20litres of water	Repeat after 1-2 weeks
Dewormers	Albendazole 10%	3ml	After 3 months

Challenges in providing animal health services to pastoralists

We asked the service providers about the challenges they foresee could hinder their effective participation in the BILI project. Service providers identified, as a challenge, difficulties in reaching pastoralists who are often moving and located in remote areas. Furthermore, because most service providers are constrained in their access to capital and stocking capacity, delayed reimbursement (if a subsidy scheme is implemented) could compromise the sustainability of the businesses. A further concern was that limited understanding of BILI might lead to misconceptions, unrealistic expectations, and low enrolment rates.

Table 13. Challenges in Isiolo County

Challenges	Proposed strategies
Delayed reimbursement of service providers	Improved coordination between insurance companies and service providers
Lack of knowledge on how BILI and the discount voucher/subsidy work potentially raises conflicts	Conduct continuous training and awareness campaigns
High expectations from pastoralists, even when the vouchers are unavailable	Better coordination, linking service providers, insurers, researchers, and communities.
Lack of trust in the product by pastoralists	Strengthening community engagement and transparency

Table 14. Challenges in Samburu County

Challenges	Proposed strategies
Difficulties reaching pastoralists due to the remoteness of the areas, poor infrastructure, and mobility of the livestock keepers, which may limit access to animal health services	Consider providing transport costs for the service providers.
Frequent movements of pastoralists complicate the service delivery and follow-up	Consider providing transport costs for the service providers.
Index-Based Disputes resulting from disagreement where pastoralists disagree with the index when they experience actual livestock losses and are not paid.	Conduct regular community awareness campaigns explaining how BILI works
Delayed Service Delivery	
Mistrust because of a lack of understanding of how BILI works.	Build trust through community leaders and Community Animal Health Workers (CAHWs).
Delayed reimbursements may affect the service providers' participation	Ensure timely payments to service providers Introducing flexible payment mechanisms such as M-Pesa

Table 15. Challenges in Marsabit County

Challenges	Proposed strategies
Lack of a better understanding of how BILI works, leading to misconceptions, unrealistic expectations, and low enrolment rates	Comprehensive training and sensitization before rollout
Many pastoralists are skeptical about insurance due to limited previous exposure, Cultural perceptions, and lack of trust in formal financial products	Clear communication on insurance benefits, conditions, and limitations
Delays in payment and voucher redemption can disrupt service delivery, affect the cash flow of the service provider, and undermine confidence in the system	Timely reimbursement and voucher processing
Inaccessibility of remote areas due to poor infrastructure, long distances, and seasonal mobility patterns	Strengthened last-mile service delivery systems
Weak stakeholder coordination can lead to a communication breakdown and implementation strategies	Establishment of effective communication and feedback mechanisms

Perceived value of bundling insurance with animal health services

In Isiolo, the service providers indicated that bundling IBLI with animal health services is an opportunity to strengthen the veterinary business while improving service delivery to livestock keepers. In Marsabit, participants overwhelmingly perceived BILI as beneficial to livestock keepers and service providers.

Table 16. Perceived benefits of BILI

Service providers	Pastoralists
Panel A: Isiolo County	
Strengthening long-term relationships with livestock keepers	Better protection of livestock assets
Increased sales, with an expanded customer base	Access to both insurance and veterinary services under one package
Improved business visibility and reputation	Faster access to treatment and preventive services
Increased demand for veterinary services	Improved livestock health
Reduced operational cost associated with responding to major disease outbreaks	Reduced financial risks during droughts
Improve business sustainability	
Create more predictable service delivery arrangements	
Panel B: Samburu County	
Can reduce the operational cost of delivering the services	Protects livestock assets during drought and other shocks.
Can increase sales volume, with greater demand for veterinary products and services	Routine vaccination and treatment reduce livestock mortality
Will create stronger relationship with livestock keepers through linkages created between the pastoralists and service providers	Increased productivity-Healthier animals result in higher production and income
	Improved animal health: Routine vaccination and treatment reduce livestock mortality.
Panel C: Marsabit County	
Improve business sustainability	Makes animal health service more accessible
Increase sales volume, with greater demand for veterinary products and services	Routine vaccination and treatment reduce livestock mortality

Increase the feasibility of vet practices	Improve livestock health and productivity
Will strengthen the delivery of extension services since animal drug vendors usually provide extension services to their customers	Facilitate timely treatment and disease prevention
	Reduce livestock losses
	Improve household resilience during droughts.

Service providers' knowledge of the index-based livestock insurance

In Isiolo, most service providers indicated that they are aware of IBLI but have a medium level of understanding. In Samburu, most participants reported having limited familiarity with IBLI. The proposed strategies to increase the understanding of the product are as follows:

- Additional training and capacity-building sessions.
- Continuous sensitization and awareness campaigns.
- Practical demonstrations and case studies.
- Simplified educational materials.
- Workshops and field days.
- Translation of materials into local languages.
- Continuous interaction between service providers and communities.

Service providers' suggestions about pricing of BILI

Most service providers across the counties suggested that the proposed pricing should remain affordable and practical for pastoral households. The service providers suggested that the cost of insurance and animal health services be separated and subsidized separately because of the following reasons:

- Transport costs can vary significantly depending on the location and should be considered.
- Separation of prices would increase transparency and help pastoralists to understand what they are paying for.
- The insurance package should remain affordable; pricing should provide clear value for money.
- Premium should reflect the actual level of livestock risk and changing market conditions.
- The suggested pricing adjustment includes flexible payment schedules and group enrollment at a discounted price.
- Targeted subsidy to support the poor and vulnerable households.

We further sought to understand the service providers' recommendation of a good range for subsidy if offered, how the subsidy voucher would affect pastoralists' purchasing decisions regarding the BILI package, and the implications it would have for your business now and in the future. Results are presented in Table 17.

Table 17. Proposed subsidy range for BILI in Isiolo, Samburu, and Marsabit counties

Subsidy Contribution	Pastoralist Contribution	Reason
Isiolo		
70% Subsidy	30% Contribution	Making it affordable to pastoralists
50% Subsidy	50% Contribution	Affordable
Samburu		
30% Subsidy	70% Contribution	It benefits the pastoralists and is sustainable
50% Subsidy	50% Contribution	Affordable
70% Subsidy	30% Contribution	It will be affordable
Marsabit		
60% Subsidy	40% Contribution	Affordable

Service providers indicated that higher subsidy levels would improve affordability and encourage enrolment, ensure BILI remains affordable, increase access to veterinary services, and expand business opportunities for service providers. They further noted that even outside drought periods, insured pastoralists would likely continue purchasing animal health services.

Subsidies were expected to:

- Expand the customer base.
- Increase demand for complementary animal health services.
- Improve purchasing power among pastoral households.
- Strengthen business sustainability.

Perceived factors influencing pastoralists' use of animal health services

The decision-making process of pastoralists when seeking animal health services is determined by the severity of animal conditions and disease outbreaks. Service providers identified the following factors influencing pastoralists' choices:

- The cost of animal health service.
- Availability of service providers.
- Quality of veterinary products.
- Recommendations from fellow pastoralists.
- Traditional treatment practices.
- Treatment efficacy is influenced by the quality of drugs (e.g., counterfeit drugs).
- Cost of animal health products and services.
- Climate conditions and seasonal risks.
- Pastoral mobility patterns.
- Education and awareness levels.
- Information obtained through community networks and media.

Implementation modalities

We asked service providers about the appropriate ways that BILI should be implemented to ensure effectiveness in addressing the needs of pastoralists. Specifically, we asked (1) "How should BILI be implemented to ensure that pastoralists, service providers, and insurance companies benefit?" (2) "What type of partnerships and arrangements should be in place?" (3) "Because BILI combines insurance and animal health services, how can this be

implemented to enhance collaboration between service providers, insurance companies, and researchers (ILRI)?" and (4) "What support would you require to ensure the successful implementation of BILI?"

Service providers advised that the implementation of BILI should involve all relevant stakeholders such as service providers, insurance companies, ILRI, national and local governments, and existing community institutions. The expected benefits identified by the service providers include improving livestock health outcomes, increasing access to preventive services, and strengthening resilience against drought-related losses. Successful implementation will require strong partnerships among ILRI, insurance providers, county governments, animal health services, and community institutions. In addition, there is need for investment in awareness and knowledge creation about BILI.

To ensure effective implementation, service providers indicated that support was required in the following aspects:

- A reliable supply of veterinary drugs and products and the creation of strong distribution networks with reputable suppliers and distributors.
- Help with resources for transportation support to reach remote areas.
- Resources for outreach in remote pastoral areas.
- Provide technical support, including veterinary expertise and training.

We further sought to understand perceived areas of improvement to the current capitation model for BILI. Therefore, we asked the service providers whether there were aspects of the model that they thought needed improvement. These improvements would increase confidence among service providers and strengthen implementation. The following aspects were mentioned:

- Hiring field staff dedicated to awareness creation.
- Processing of subsidy reimbursements to the service providers should be timely.
- Transparency in the processes of insurance payout.
- Have a good monitoring and reporting system.
- Ensure access to quality veterinary drugs.
- Effective communication among stakeholders.

In terms of the identification documents that pastoralists are required to produce when accessing the animal health services, the following were suggested:

- National ID.
- Proof of insurance e.g., membership card, insurance SMS confirmation.
- Registered phone number for verification and voucher confirmation.

These documents would facilitate verification, claims processing, and efficient delivery of bundled insurance and animal health services.

Role of CAHWs such as community disease reporters (CDR)

The community animal health workers (CAHWs), including community disease reporters (CDRs) are well positioned to strengthen trust and improve uptake because they live within the communities. The specific roles the CDRs can play include:

- Disease surveillance, confirming the outbreaks and reporting to the authorities.

- Provide training and awareness to livestock keepers on disease prevention, good animal husbandry, and vaccination schedules.
- Assist in linking pastoralists to insurance and animal health service providers.
- Support ground-level monitoring and implementation and provide information on local ecological conditions.
- Provide basic animal health support services in remote areas.
- Help in community mobilization, linking communities, service providers, and insurance companies, promoting trust between them because they live and work within the pastoral communities.

Collaboration with other stakeholders

We probed to understand the role of collaboration with stakeholders including insurance company, ILRI, and other local partners to effectively implement BILI. Participants anticipated high demand if collaboration is effective and services remain accessible. Service providers identified the following activities:

- Organizing joint activities on the sensitization of the BILI product.
- Coordinated awareness campaigns on IBLI.
- Encourage information and data sharing.
- Regular stakeholder meetings.
- Joint monitoring and learning.

Anticipated demand for animal health services if bundled with insurance

The demand for animal health services is expected to increase. There are several pathways through which this increase can happen. First, the subsidized cost of animal health services because of the negotiated prices is expected to improve affordability. In addition, de-risking through insurance will give pastoralists peace of mind knowing that their assets are protected against drought. This is expected to trigger a behavioural response towards increased adoption of animal health services as productivity enhancing inputs. Increased investment in productivity enhancing inputs combined with linkages to output markets will likely improve incomes, therefore, creating effective demand for insurance and contributing to commercial sustainability.

Proposed strategies for promoting BILI

Several channels can be used when promoting/ marketing BILI. These include community meetings, social media platforms, livestock markets, water points, a local radio station, and religious leaders, local champions, and respected community leaders. Use of the local language in the marketing of these services will be effective. In addition, focus should be placed on the use of approaches that will help in building trust in the product and encouraging enrollment. Examples of such approaches include:

- Sharing testimonials from pastoralists benefiting from BILI.
- Engage respected local leaders and elders.
- Use of social media and local radio stations to promote BILI.
- Conducting regular feedback meetings.
- Demonstrating tangible benefits through pilot success stories.
- Training and sensitization of pastoralists.

- Capacity building for service providers.
- Engagement of local leaders and ward administrators.
- Strong marketing and awareness campaigns.

Conclusion and Recommendation

The mapping exercise shows that there exists a critical mass of animal health service providers. This is important to ensure that bundled index-based livestock insurance (BILI) is an appropriate innovation. The exercise further shows that most of the service providers were willing to participate in the BILI project and were able to identify benefits to the communities. Private animal health service providers were found to be more involved in delivering veterinary services than the government department, which is more involved in a regulatory role and mass vaccination during disease outbreaks. Formal agrovet shops are concentrated in trading centers, while mobile providers dominate remote pastoral areas. Community disease reporters play an important role in delivering animal health services at the community level. They are equally crucial as the first point of contact by the communities in the claim process.

Based on this study, we draw several recommendations:

1) Leveraging existing private animal health providers, establishing partnerships with major suppliers, and building delivery mechanisms adapted to pastoral areas, including integrating Community Animal Health Workers (CAHWs) and Community Disease Reporters (CDRs) into delivery models, will help address animal health gaps as the bundled IBLI is implemented.
2) Animal health services should be prioritized for bundling with Index-Based Livestock Insurance to improve access to better-quality veterinary inputs. This requires other actors to play specific roles: the government providing regulatory and coordination support, while the CAHWs and CDRs deliver animal health and advisory services at the community level.
3) Adopt an evidence-based approach to shortlisting service providers who will partner with ILRI to support a more effective and sustainable implementation of BILI.

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