



MIFUGO MAISHA COVER

Index Based Livestock Insurance (IBLI)

Insurance Village Insurance Promoters' Training Manual-Isiolo

This training manual details Index Based Livestock Insurance. Its main purpose is to train Village Insurance Promoters (VIP) on the product. By the end of the training the VIP is supposed to understand key features of the product and therefore able to sell it to the pastoralists

Background

Recurring drought is the greatest risk to the livelihoods of pastoralists and agro-pastoralists in the Arid and Semi-arid Lands (ASAL) of Northern Kenya. They rely on livestock as their sole source of food and income, and severe drought kills large numbers of their herd. Households in Isiolo are forced to employ short-term traditional drought coping strategies such as migrating with their herds to other regions, distributing their herd amongst relatives and borrowing livestock from clan members. However, these risk-sharing strategies are insufficient because drought-related risks often affect entire regions.

Since 2013, ILRI and its partners in the public, private and non-profit sectors have developed and implemented Index-Based Livestock Insurance (IBLI) to protect livestock keepers from drought-related asset losses. IBLI uses satellite imagery to measure pasture levels available for livestock to consume. Consequently, it has a relatively simple and transparent structure because the outcome cannot be influenced by the fund managers or policy holders. This makes implementation easier and more cost effective than conventional insurance. It also allows vulnerable rural pastoralists to benefit from livestock cover (Mifugo Maisha) and thus reduce climate-related risk. Policy holders are grouped into geographically defined areas that have a set contribution based on local pasture conditions and they receive an indemnity when forage conditions fall below the worst conditions in the last 14 years, above the trigger level.

Rationale

It is challenging to introduce and teach the benefits of the IBLI product to pastoralist communities because the target clientele are often:

- i)* Generally unfamiliar with the concept livestock insurance (Mifugo Maisha)
- ii)* Situated in remote and infrastructure deficient areas
- iii)* Mostly illiterate or semi-literate
- iv)* Constantly moving in search of pasture for their livestock.

The main mode of delivery of information about IBLI product to the pastoral communities will be through lead agents. The lead agents have been identified as the way to educate pastoralists because they are fairly literate. They are also part of the pastoral communities and therefore can explain the product details using local dialects.

Objectives of the training

The overall objective of the IBLI training is to help potential clients understand and appreciate how Index-Based Livestock Insurance works so that they can make informed decisions about investing in the Insurance Livestock Cover. In addition, the training is to share information and create the understanding of the IBLI product. By the end of the training the trainees should be able to:

- i)* Clearly explain the key features of IBLI
- ii)* Describe and disseminate information on IBLI purchase and compensation processes
- iii)* Explain the advantages of investing in the IBLI product.

Indicative outcomes

The expected outcomes of the IBLI training are:

- i)* Increased understanding of the IBLI product and its features
- ii)* Improved methods of managing drought-related risks through informed decision making
- iii)* Increased numbers of IBLI policy holders.

Training Delivery

Teaching and learning methodologies

The training will employ the following teaching and learning methodologies

- Analogies
- Group discussions
- Buzz groups during sessions
- Lectures
- Question and Answers
- Proverbs and sayings
- Reflections
- Evaluations

Instructional materials and formats

The training will use the following instructional materials for effective delivery:

- Comic books
- PowerPoint slides
- Flip charts and marker pens
- Pictures, art works and other appropriate illustrations
- Quick reference guide

Instruction equipment

The training will use the following instructional equipment for effective delivery:

- Calculators for contribution calculating exercises
- Generator (where the electricity and solar power is unavailable)
- Laptops and LCD projectors

Modes of instruction

The mode of instruction shall be:

- Face-to-face
 - Trainer-trainee interaction
 - Trainer- group interaction
 - Trainee – trainee interaction

Target group

The target clients for IBLI are the pastoral and agro-pastoral communities of Northern Kenya. This manual will equip the Index Based Insurance lead agents with the knowledge and methods to ensure that the training objectives are met.

The lead agents will identify his/her network of sub-agents who will be educated on the product to sell IBLI to the pastoralist. In addition, he/she will educate the target clients through village *Barazas* (meetings) organized by village elders or local chiefs, house-to-house meetings and congregations at convenient points such as water points for select groups of

the members of the villages (women, young men, old men...) among other innovative means of promoting IBLI.

Training structure

TRAINING LESSONS DESCRIPTIONS

Lesson 1: Traditional drought risk management methods and the concept of livestock insurance

Lesson Objectives

By the end of this lesson the trainees should be able to:

- i) Describe the concept of insurance
- ii) Differentiate conventional (traditional) insurance from Index Based Insurance
- iii) Explain the consequences of drought related livestock deaths
- iv) Explain the shortcomings of traditional methods of coping with the risk of drought related livestock deaths

Methodology

- Discussions
- Proverbs
- Question and answer

Training and Instructional materials

- Flip charts
- Tape
- Still picture

Time: 3 hours

Activities:

- i) Explanation of the concept of insurance
- ii) Differentiate conventional (traditional) insurance from Index Based Livestock Insurance
- iii) Explaining the shortcomings of traditional drought coping methods

Set learning climate with the following discussion as an entry point

Start a discussion with the trainees on their understanding of risk (*where, risk is uncertainty concerning the occurrence of loss*). Stimulate a discussion among them to identify their

understanding and concepts of risk. During the course of the discussion, help them identify drought as a major cause of risk to livelihoods of the pastoralists.

Ask the trainees: *What are the major cause of livestock risk that are faced by the pastoralists*

Types of livestock risk:

- Drought
- Disease
- Cattle rustling /raids
- Predation

Re-emphasize the point– Droughts are a major cause of high livestock mortality in pastoralist regions in Kenya. Though the other forms of risks affect the livelihood of the pastoralists, death of livestock caused by drought is the highest. **(quote the loss of livestock that took place in the 2011 droughts).** Pastoralists rely on livestock as their main source of income and therefore the death of livestock severely affects their livelihoods. They have little savings and no other significant sources of income and they are therefore exposed to greater risks.

Ask the trainees: *What are the consequences of livestock losses to pastoralists?*

Involve the learners in coming up with consequences of livestock losses. List them on a flip chart.

Consequences for pastoralist include:

- Their capacity to feed the family becomes less
- They lack funds to educate their children
- They lack funds to access medical services
- Greater exposure of pastoralist communities to death
- Stress and loss of self esteem

In the past pastoralists have tried many traditional methods of coping with the consequences of drought...Ask the trainees to come up with traditional drought coping methods and list them on a flip chart.

Methods include:

- Migrating with their herds to other regions
- Distributing their herd amongst relatives
- Borrowing livestock from clan members
- Taking up the risk
- Selling of livestock

Ask the trainees: *Do the traditional drought coping methods address the drought problem fully?* Clearly none of these methods are able to fully address the problem. Pastoralists are still left vulnerable to the severe effects of drought that often affect entire regions. **Indicate to the trainees that:** The pastoralists need to work as communities to find a lasting solution to recurrent drought problem. [There is a **Boran** saying that goes: “**Man tannan wan tat hid`abdu**”(if people come together to seek solution to a problem they cannot fail to find one)as is the the Somalione ‘**showramashalaya**’: which means- when people meet to find a solution to a problem they will always get a solution.

Ask the trainees: Why is risk management important? List the responses on a flip chart.

Answers include: It prepares the individuals against potential losses, ensures their survival, enhances stability of earning, and promotes growth of wealth.

Index Based Livestock insurance is now a solution available to pastoralists. **Introduce the concept of insurance using the following case of 200 herders:**

A Case of 200 Herders

There are 200 herders each having one bull.

Each bull is worth K sh.20, 000

Every year, 5-bulls die, on an average due to drought

Ask the trainees:

- I. What will be the total amount of money (in Kenya shillings) of bulls lost by the herders each year?
 - a. 20,000
 - b. 150,000
 - c. 100,000
- II. Suppose all the 200 herders come together and contribute KES. 600 per year, what would be the amount of the common fund?

Expected answers:

- a. KES.80,000
- b. KES.120, 000

Indicate to the trainees that: The contributed fund is a sufficient amount to cover the loss of herders whose bulls died. The common fund means that the loss of 5 herders is distributed amongst 200 herders.

This example illustrates how conventional (traditional) insurance works. This is the similarity between conventional and IBLI. When people buy IBLI they pool their resources and contribute to a fund that will be later used to cover the cost of those who suffer losses. The policy holder is expected to bear a defined proportion of the total insured risk of the rest of the policy holders. Individual risks are therefore reduced by spreading them among the policy holders. Therefore, IBLI not only involves **risk transfer** but also **risk pooling and reduction**.

Ask the following questions to the trainees:

In the case of 200 herders which figure would represent

- i) The contribution
- ii) The pooled funds

Expected answers

- i) The contribution of KES. 600
- ii) The total contribution of the entire 200 herders of KES120,000

Discuss with the trainees about risk management:

Discuss with the trainees about risk management:

Tell the trainees that: Risk management is developing and implementing a strategy to *reduce the overall level of risk* of a venture to an acceptable level. Risk assessment techniques must be used to determine the maximum acceptable level of overall risk and the initial level of risk before a strategy can be developed

On the other hand, insurance is a formal way of *managing risks*. The buyer of an insurance contract (policy) pays a premium (periodic payment) in exchange for a proportion of their risk to be transferred to the insurer.

Indicate to trainees that: One of the methods to manage drought related risks is Index-Based Livestock Insurance (IBLI). Conventional insurance would probably not work in a pastoral setting

Ask the trainees:

- i) How many of them have conventional (traditional) insurance?
- ii) What are the main features of conventional (traditional) insurance?

Explain the concept of index-based Insurance

Index-based Insurance uses a suitable and measurable representation such as forage availability or rainfall to construct an indicator or **index** that is highly associated with the event being insured, such as drought related livestock deaths or crop failure respectively. Index-based Insurance establishes a defined limit of range of values over which compensations can be made. The limit often marks the point at which payments begin.

For example, an index Insurance policy designed to cover the risk of drought related livestock mortality would begin making indemnity payments if forage availability fell below the threshold over a defined time period, such as a year.

Index-based Insurance is best suited for **correlated risks** (severe, widespread events such as droughts).

Pose to the trainees: What do they think is the difference between conventional (traditional) insurance and index-based Insurance? Use table 2 to explain the differences

Table 2: Differences between conventional insurance and index-based Insurance

Conventional (traditional) insurance	Index-based Insurance
<i>Suitable for independent (uncorrelated) risk such as a car accident / individual loss</i>	<i>Suitable for correlated (widespread) risk such as drought</i>
<i>Compensation done on actual losses. The actual losses have to be assessed by claim assessors before payout is made</i>	<i>Compensation is based on the index reading for a locality such as the forage availability for a division.</i>

<i>Payout process is long, cumbersome and subject to bias</i>	<i>Objective triggers and structured rules exist. When they occur payment is automatically done</i>
<i>Claim is slower</i>	<i>Claim is faster</i>
<i>Payment made to individuals according to verified individual loss</i>	<i>Payment made to all individuals within a coverage area as per the index level.</i>

Indicate to the trainees that: IBLI is an innovative index based product designed to protect against prolonged forage scarcity. IBLI triggers payment to pastoralists to help maintain their livestock in the face of severe forage scarcity. The livestock covered under IBLI are Camels, Cattle, Sheep and Goats only.

Ask the trainees: Why should the pastoralists consider using IBLI to manage livestock related deaths? Underscore the relevance of this question through a proverb.

[For the Boran the proverb goes: “**Fula jjiitubilachiiitmara**”(literal translation- we expect butterflies to hover over a damp area) **meaning-People will consider an investment if it has a potential return** Somali-“**Lamahuranwacawsjilal**” which means you cannot do away with out dry hay.

Expected responses include: Traditional drought coping strategies have repeatedly left pastoralists vulnerable to the devastating effects of recurrent drought. Unlike the traditional drought coping strategies, IBLI is expected to help participants:

- i) Protect their livestock from dying to forage scarcity
- ii) Stabilize household income in severe droughts. Households whose incomes would have otherwise been significantly reduced are cushioned by the Insurance Livestock Cover payouts.

Lesson Evaluation

Evaluate whether the session objectives have been met by asking your trainees the following questions:

- i) What are the shortcomings of traditional drought risk management methods?
- ii) How does conventional (traditional) insurance work?
- iii) How does Index-Based Insurance work?
- iv) What are the differences between conventional (traditional) insurance and index-based Insurance?

Have a quick group exercise: Ask the trainees to discuss the above questions amongst themselves in groups and ask one of the team members to present the summary of the discussions.

Based on the answers, ask the other trainees or group members to clarify any misconceptions that may exist. The trainer should facilitate the process

EXPLANATION OF IBLI PRODUCT FEATURES

Lesson 2: Risks covered and the index

Lesson Objectives

By the end of this lesson the trainees should be able to:

- i) Clearly identify the risk covered by IBLI
- ii) Explain the construction of the index

Explain risks covered under IBLI

Tell the trainees that: Index-Based Livestock Insurance (IBLI) is a product that is designed to protect against prolonged forage scarcity. IBLI triggers payment to pastoralists to help maintain their livestock in the face of severe forage scarcity.

It is very important to indicate clearly what is covered under IBLI and clarify that IBLI provides pastoralists with a means to help maintain their livestock in the face of severe forage scarcity only.

Explain the Index

Indicate to the trainees that: An index is an indicator that is associated with the event being insured. The objective of IBLI is to insure livestock against drought related forage scarcity.

For pastoralist who mainly feed their livestock on rangelands, drought literally means decline in forage availability overtime, both in quantity and quality. When there is an extreme drought situation, there is no forage for livestock at all.

The index in IBLI is a measure that compares the total amount of forage available across the contract season with the historic average forage availability of that season. It measures the forage condition over a defined time period and it is calculated by using a measure of pasture

availability that is recorded by satellites, called the Normalized Differenced Vegetation Index (NDVI). The index compares the observed NDVI over a particular season, with the observed NDVI over a given historical period. This is captured using satellite images. These image pictures are taken every **16 days**.

Explain to the trainees: The construction of the index follows three steps:

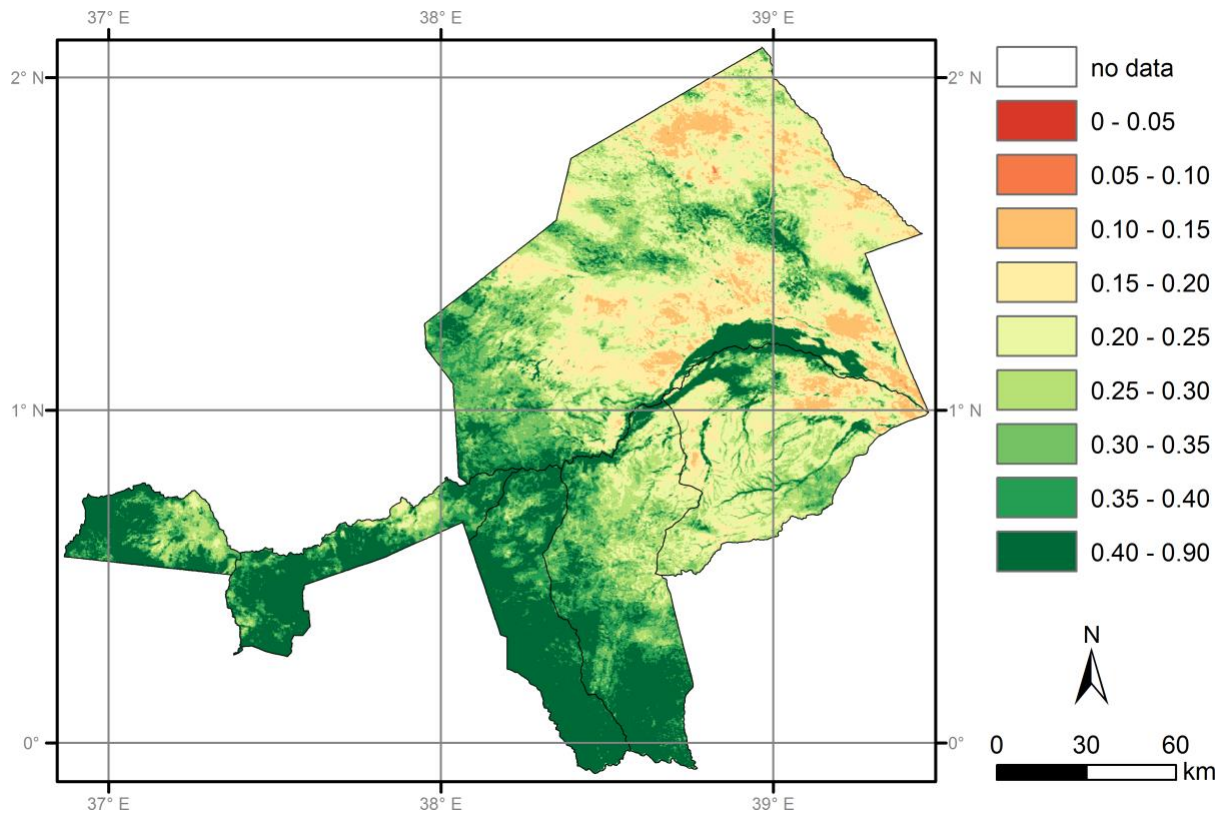
- i. Getting forage availability data or knowing the degree of greenness of forage using satellite image
- ii. Calculating degree of change (increase or decrease) of forage condition from what is supposed to be normal
- iii. Cumulating the change (increase or decrease) of forage condition starting from the first day of the beginning of rainy seasons to establish the IBLI index

Explain each of the steps that you have mentioned below:

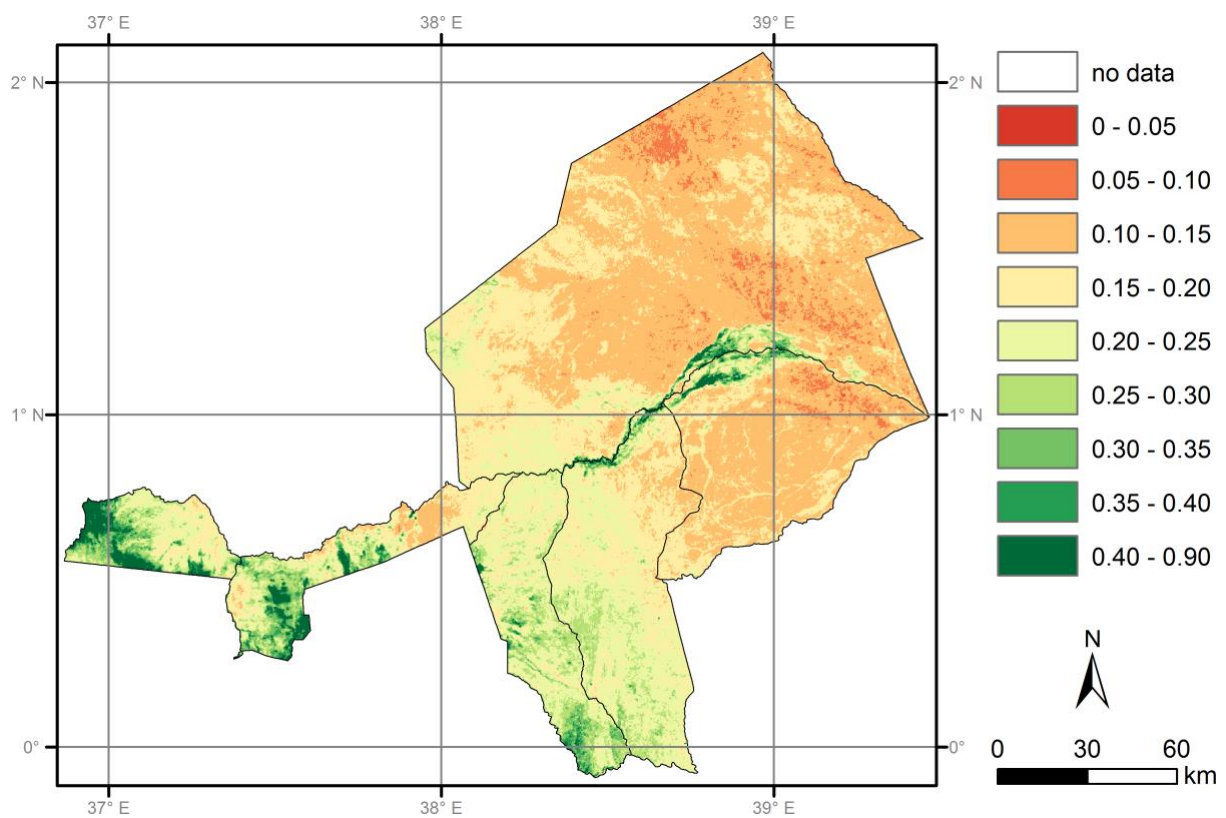
- i. **Getting forage availability data or knowing the degree of greenness of forage using satellite image:**
 - This is called NDVI (normalized differenced vegetation index) which is a numeric indicator of the degree of greenness of vegetation from a satellite position.
 - NDVI values ranges from 0 to 1 and are extracted every 16 days for each 250m x 250m area (refers to as 'pixel' representing standard display resolution of NDVI data).
 - **Very low** values of NDVI (0.1 and below) is an indicator of barren areas of rock or sand (no vegetation). **Moderate values** represent shrub and grassland (0.2 to 0.3), while **higher values** indicate temperate and tropical rainforests (0.6 to 0.8).
 - NDVI average over a long period of time is used to determine the normal growing conditions of vegetation in a defined geographical location at a certain season in a year.

Use Picture 1 and 2 in figure 1 to illustrate vegetation cover as captured by satellite

Display picture1: Forage availability: Satellite picture 1, 2010 and 2 in 2011 in May.



Picture1: Bad vegetation condition in 1-10 May2010, in Isiolo



Picture 2: Good vegetation condition in 1-10 May 2011, in Isiolo

Explain the representation of the forage availability by the different colors

Point out that: The above satellite pictures capture the forage on the ground. As indicated on the key, the indicator of forage takes value between 0 and 1; the representation is on a continuum of colors from dark green (dense forage) to dark brown (no forage). The larger value means a better vegetation condition.

Take for instance Isiolo Central and Garbatulla Divisions shown in the satellite pictures above. In Picture 1, forage cover is quite high which implies good forage availability. Picture 2 contrasts the two divisions and shows that Garbatulla division has far lower forage than Central Isiolo.

ii. **Calculating degree of change (increase or decrease) of forage condition from what is supposed to be normal:**

- The change measures how forage is/has performed compared to what is normal (average forage condition) for that specific location. Statistically the change (increase or decrease) is represented by Z. This change (increase or decrease) of forage from normal condition is denoted by ZcumNDVI.
- The change (increase or decrease) of forage condition (ZcumNDVI) from normal condition can take three categories of value: **negative, zero or positive.** **Zero values** means forage performance is more or less equal to normal conditions (or the historical average) in that particular region. **Positive values** indicate above average or normal forage condition whereas **negative values** indicate below normal forage condition. The deviation of forage condition at aggregate level is got by taking the average ZcumNDVI of a particular picture of 16 days season in a year

Stress to the trainees that: The level of forage determines the productivity and health of livestock which in turn directly affects the survival of livestock. Compensation is made after monitoring the forage availability for a season (there are two seasons in twelve months, March to September and October to February).

Ask some of the trainees to point out their divisions or regions, and let them explain the forage availability based on the satellite pictures.

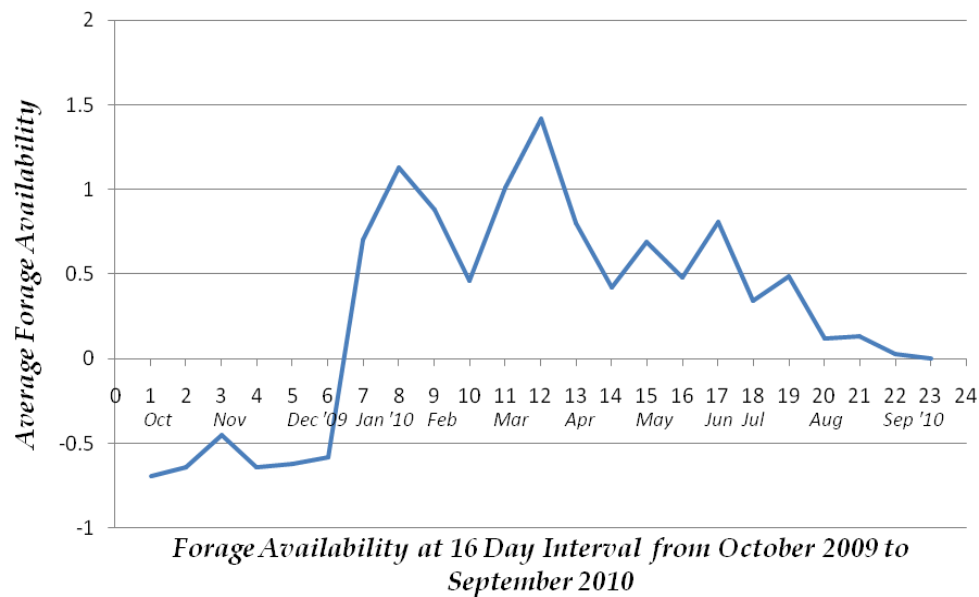
- **Cumulating the change (increase or decrease) of forage condition starting from the first day of the beginning of rainy seasons to establish the IBLI index:** According to the model we use, this is captured by cumulating change (increase or decrease) of forage condition for a period of insurance coverage for a total area of interest (division level in our case).
- As drought is the continuous deterioration of forage condition over a period of time (a season according to our model), livestock will only perish due to forage starvation after a prolonged scarcity.

A forage-based insurance product therefore aims to cover the risk of prolonged forage scarcity by measuring forage scarcity over time. We denote cumulative change (increase or decrease) of forage condition by ZcumNDVI.

Figures 2 and 3 show examples of forage availability in a division monitored in the period between October 2009 and September 2010, and March 2011 to February 2012.

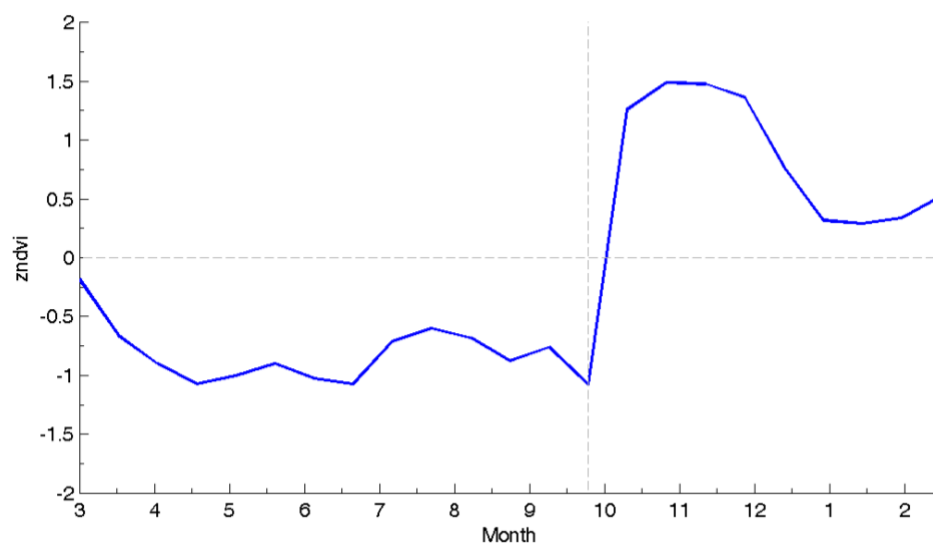
Display Figure1 & 2

Figure 1:



Illustrate to your trainees the trend of forage availability for the year October 2009 to September 2010 in Y division

Figure2:



Forage availability in the same Division from Mar 2011 to Feb 2012

Explain for instance that: Figure 1 indicates the trend of forage availability in the monitored Division over a 16day period starting from October 2009 to September 2010. The horizontal zero line is the long-run average forage availability for that period of the month since 2000 (14years). Therefore, when the line is above this, it means that there is more than an average amount of forage on the ground relative to the norm. Similarly when the line is below zero, it indicates that forage availability is less than the norm. As such, the figure indicates that the

last three months of 2009 in that division were considerably worse than normal. However, there must have been some rains (or perhaps large herd die offs that reduced the pressure on forage) as from early on in 2010 the forage situation improved to considerably better than average. The months thereafter has continued to see better than average forage but at a decreasing rate until September 2010 where it was around the long-term average

Pose to the trainees: Under such a situation, what would you expect the condition of livestock to be in September 2010? Also pose the same question for March 2011

With forage conditions clearly better than average for most of the time, we would expect that livestock in September 2010 were generally healthy.

Explain the construction of the index

Point out that: Pasture availability in the target division is monitored using satellite images (such as those shown in Figure 1 & 2) for at least 12 months. The data on pasture availability is captured from satellite position for every pixel (250m by 250m) for a particular time of the season. Then, the amount of change (increase or decrease) in that particular picture of pasture from what is normal for that geographical location at that particular time of the year is calculated. The change (increase or decrease) will be cumulated over the insurance coverage season. This index is called Cumulative change (increase or decrease) of pasture availability (ZcumNDVI) index

For insurance purpose one year is divided into two seasons:

- I. March to September: (March is supposed to be the start of Long rain while September is the end of long rain).
- II. October to February (October is supposed to be the start of Short rains and February is the end of short rains).

Ask the trainees why they think these periods of the year are chosen

Cumulative change (increase or decrease) of pasture availability is calculated from start of each season (March/October) to the end of each season (September/February) for the past 14years for each geographical area of interest (in this case division). The observed Cumulative change (increase or decrease) of the 14years of a season was arranged chronologically from the worst (bad drought year) to the good (plentiful year).

The objective of the insurance is to cover the big negative changes or worst drought cases; this insurance is not for minor deviation from normal conditions. Insurance chooses the lower 20th percentile (which means insuring the worst 20cases out of hundred cases in the last 14years) as a cut-off point that indicates strike-in of drought. So whenever the cumulative change of pasture availability index, of any geographical area of interest (a division), for a certain season falls below the chosen (agreed) cut-off index, those who purchased insurance for the particular division will receive a payout. In other words, IBLI will compensate if the forage condition will fall below the worst 20 percentile of seasonal pasture levels in the contract area.

Explain how the integrity of the index is ensured

Pose a rhetorical question: How is the integrity of the index ensured?

Explain to the trainees that: Satellite data is provided by the independent international scientific organizations. The index is currently constructed by International Livestock Research Institute (ILRI), an international organization dedicated to improving pastoralist livelihoods through innovations in livestock management. APA insurance is the commercial partner involved to provide the Insurance cover. Both the satellite data providers and ILRI are independent international organizations that cannot be influenced by the insurance company (APA insurance) to manipulate the index.

Lesson Evaluation

Evaluate whether the session objectives have been met by asking your trainees the following questions:

- i)* What is the risk covered by IBLI?
- ii)* How does the index work?
- iii)* Can the fund manager manipulate the index in order to avoid making compensations?

Ask the trainees to discuss in their groups and come up with simple ways to answer the questions. Ask them to choose one of the members of their group to give a summary of the key elements of the risk and the index

Based on the answers ask the other trainees from other groups to clarify any misconceptions that may exist

Lesson 3: How the contract works and the geographical coverage

Lesson Objectives

By the end of this session the trainees should be able to:

- i)* Explain the significance of the trigger point
- ii)* Explain the exit point and its significance
- iii)* Explain the geographical coverage of IBLI
- iv)* Explain the payout function

Methodology

- Discussions
- Illustrations
- Question and Answer
- Role play

Training and Instructional and materials

- Isiolo County Map with Divisions indicated
- Flip charts
- Tape
- Computer and LCD projector

Time: 2 Hours

Activities

- i)* Explaining the significance of the trigger point
- ii)* Explaining the geographical coverage of IBLI
- iii)* Role Play to Illustrate the Trigger Point and Difference between Conventional Insurance and IBLI

Re-emphasize about how IBLI works:

IBLI will compensate policy holders if the forage condition will fall below the worst 20th percentile of seasonal pasture levels in the contract area. . (This is measured by the ZcumNDVI – i.e. the forage availability index). The potential payout is two times in a year with a one-time premium payment, valid for a year.

Cumulative change (increase or decrease)

Trigger Point and its significance

Indicate to the trainees that: With an IBLI product, the pastoralists are expected to bear a small part of the cost of keeping an animal alive during prolonged forage scarcity. This cost is usually referred to as a **deductible**. [The Boran and Somali's have a practice similar to deductible called Busa/Qaraan—if a clan member's livestock die, other clan members may contribute livestock to him based on the level of the severity of the loss because the affected member of the clan is expected to bear part of the losses. Other pastoralist communities also have similar practices].

Ask the trainees from other communities whether they have similar practice if there is tell them to describe it

Definition of the trigger point

The index threshold below which payouts must be made is called the strike level. Supposing the forage conditions are ranked from 1- 100 with 1 being the worst and 100 the best. The strike level is then set such that if the forage conditions for the current contract season is ranked 20 and below, the contract will pay out. Therefore, the strike level is set at the 20th percentile. In other words, IBLI will compensate if the forage condition will fall below the worst 20 percentile of seasonal pasture levels in the contract area.

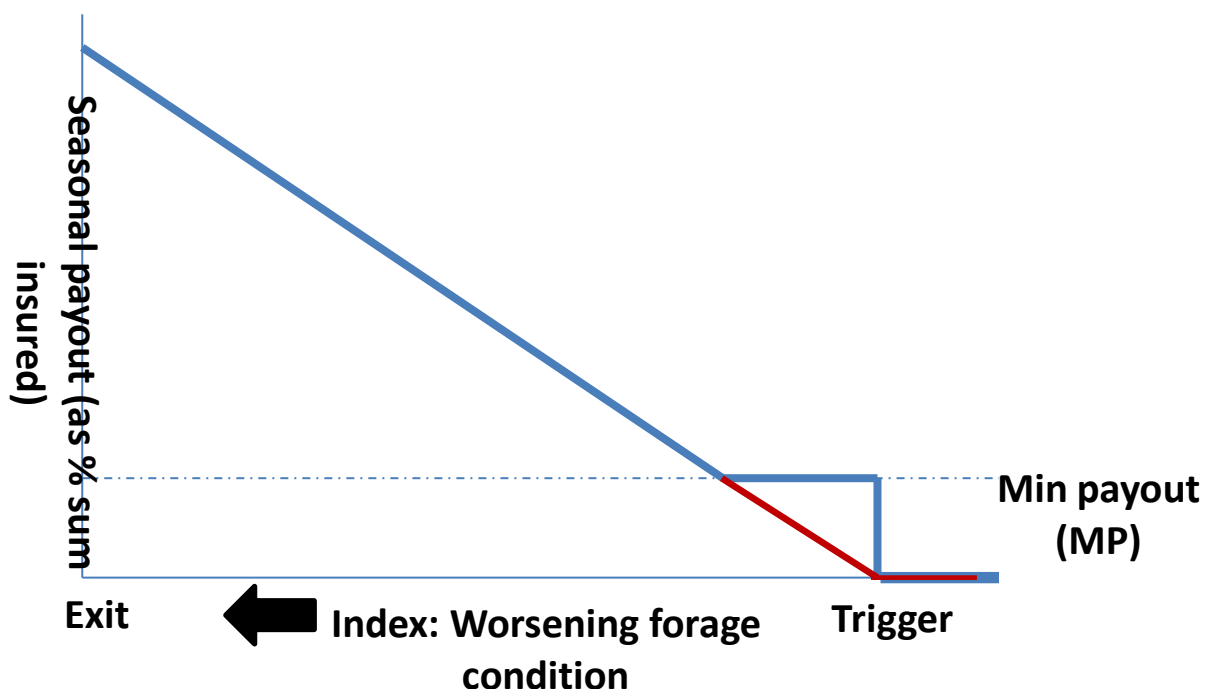


Figure 3: Graphic Presentation of Seasonal Payout Function

Maximum payout rate

Maximum payout rate is level of index reading where the insurer is willing to take the highest risk in a season. It is usually set at the exit level. Seasonal maximum payout rate is set at 50% of the insured value

Minimum payout rate

If there is a situation whereby the payout triggered is very small; e.g. payout calculated is less than the amount of premium paid, the insurance company pays some minimum amount of compensation which could be equivalent but not less than the seasonal premium paid by the policy holder. This is called minimum payout. Seasonal minimum rate is set at 5% of the insured value (It is equivalent to 50% of the annual premium).

Insured Value

It is the monetary value of all insured livestock at current market price. This is the value that is used to calculate the compensation. The insurable unit in this case is the amount of forage required to keep an animal alive over a given season in a stressful year

Seasonality of Payout

There is one main payout each season at the start of the dry period; with a one-time premium payment for that year the payout is made at the beginning of August, or beginning February for the LRLD¹ and SRSD² respectively.

Explain the geographical coverage of the IBLI index

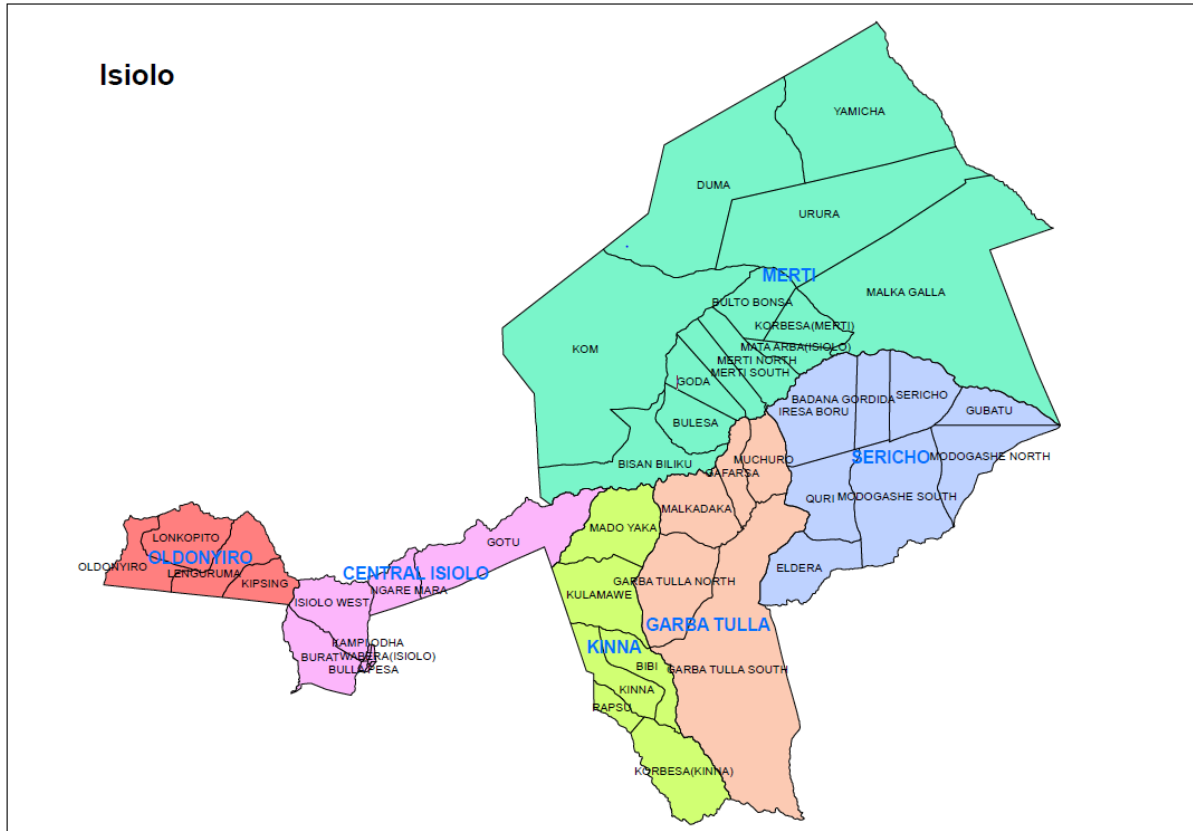
Indicate to the trainees that: Isiolo County has different agro-ecological zones. As such, the index – cumulative change of forage availability (ZcumNDVI)– is given at the division level. The IBLI index is split into six divisions, namely: Central Isiolo, Sericho, Kinna, Merti, Oldonyiro and Garbatulla

Because Insurance payments are made according to the index level, this means that IBLI may make different payments across all the divisions. Every fund participant within the same division, however, will receive the same rate of payment (if the index is below the trigger).

¹ Long rain long dry

² Short rain short dry

Figure 4: IBLI Contract Spatial Coverage of Isiolo County



Stress that: Expected compensations are likely to be different for different divisions because the cumulative change of forage availability index is expected to be unique for each division. For example the forage availability may be higher in Oldonyiro as compared to Merti, as the possibility of drought is higher in Merti. Therefore the premium/contribution charged for Oldonyiro will be higher than that for Merti.

Clarify that: The payouts are made per division as forage availability is monitored per division, the same way contributions are paid per division

Role play to illustrate the trigger point and difference between conventional insurance and IBLI

1. **Notes for Potential Compensation:** The amount of compensation depends on the severity of forage deterioration. When payout strikes, the amount of potential

seasonal compensation will be in the range of 50% of the premium paid and 50% of the total insured herd value.

2. For instance, if the current-end-of-season ZcumNDVI equals to the historically worst ZcumNDVI, the potential seasonal compensation will be the maximum, which is 50% of the total insured herd value.
3. On other hand, if the current-end-of-season ZcumNDVI nearly equals to the strike level CZNDV, the potential seasonal compensation will be the minimum, which is 50% of the total premium paid.
4. The amount of potential compensation will get higher as the current-end-of season ZCUMNDVI reading get near to the historically worst ZcumNDVI, which means higher compensation for highly deteriorated forage condition.

The amount of potential compensation will be lower for the current-end-of-season ZcumNDVI reading that is near to the strike level ZcumNDVI, which means lower compensation for moderately deteriorated forage condition.

Explain condition for IBLI compensations

1. One has to have active or valid insurance contract for the season under consideration
2. Current-season forage availability index (ZcumNDVI) should fall below the strike level of forage availability

Lesson Evaluation

Evaluate whether the session objectives have been met by asking your trainees the following questions:

- i) Explain the payout
- ii) Explain the significance of the trigger level
- iii) Explain the significance of the exit level
- iv) Explain the minimum payout
- v) Identify the geographical clustering of IBLI coverage
- vi) Explain the reasons for the geographical clustering
- vii) What are the conditions for IBLI compensations to be made

Based on the answers clarify any misconceptions that may exist

Lesson 4: Insurable livestock unit, contract contribution and sum assured and Insurance payouts

Lesson Objectives

By the end of this session the trainees should be able to:

- i) Explain the insurable livestock unit
- ii) Determine sum assured for insured livestock
- iii) Calculate contribution value for insured livestock

Methodology

- Illustrations
- Lectures
- Question and Answer
- Role play
- Exercises

Training and Instructional materials

- Calculator
- Flip charts
- Tape
- Computer and LCD projector

Time: 3 Hours

Activities

- i) Calculating contribution and sum assured.
- ii) **Role play:** To illustrate the determination of the sum assured, contract contributions trigger point, geographical coverage and expected compensation

Explain Insurable livestock unit

Point out to the trainees that: For Insurance coverage purposes livestock are converted into a standard livestock unit known as a Tropical Livestock Unit (TLU). The TLU values for different livestock are shown in table 5:

Table 5: Tropical livestock unit

1 TLU = 1 Cow,	or	1 Cow = 1 TLU
1 TLU = 0.7 Camel,		1 Camel = 1.4 TLU
1 TLU = 10 goats		1 goat = 0.1 TLU
1 TLU = 10 sheep.		1 Sheep= 0.1 TLU

This means that on TLU basis 1 cow is equivalent to 10 goat or sheep, and 1 camel is equivalent to 1 cow and 4 goats or sheep.

The amount of money required to keep one TLU alive during a period of drought related forage scarcity has been set at KES 14,000 per year. This value may then be used to arrive at the predetermined average value to keep the livestock alive across Isiolo as shown in table 6.

Table 6: Conversion of TLU to predetermined average value of livestock

Explain the sum assured

Indicate to the trainees that: The sum assured is the amount of money required to keep livestock alive during a period of drought related forage scarcity. It is given by multiplying the predetermined average value of each livestock by number of livestock being insured.

One decides the number of livestock they wish to cover and the Fund Manager does not require verification of livestock numbers. One may even decide to buy coverage for different numbers of livestock each period.

Livestock (1)	TLU (2)	Value of TLU (3)	Average Market Price (KES) (4)= Column (2)× (3)
Camel	1.4	KES.14,000	19,600
Cattle	1.0	KES.14,000	14,000
Goat	0.1	KES.14,000	1,400
Sheep	0.1	KES.14,000	1,400

For example:

- i) If you insure 1 camel your sum assured will be KES. 19,600
- ii) If you insure 1 camel and 1 cow your sum assured will be KES.19,600 plus KES.14,000 = KES.33,600
- iii) If you insure 1 camel, 1 cow, 1 goat and 1 sheep your sum assured will be KES.19,600 +14,000 +1,400 + 1400 = KES.36,000
- iv) If you insure 2 camels, 3 cows, 5 goats and 10 sheep your sum assured will be as shown in table 7:

Table 7: Calculation of Sum Assured

Livestock (1)	Average Market Price (KES) (2)	Number of Livestock Insured (3)	Value of livestock Category (KES) (4) = [Column (2) ×(3)]
Camel	19,600	2	39200
Cattle	14000	3	42000
Goat	400	5	2000
Sheep	400	10	4000
Total (Sum Assured) =			87200

The sum assured is therefore KES. 87,200

Notice that:



Sum assured is the value of livestock insured but not the expected compensation. The expected compensation is dependent on level of drought severity (the difference between the actual CZNDVI and the strike level)

Exercise:

Divide the trainees into groups and give them calculators. Ask them to work out the sum assured for two herders Wario and Abdulahi who have chosen to insure the following livestock

Group 1: Wario has 20 goats, 30 sheep, 5 cows and 3 camels.

Group 2: Abdulahi has 5 goats, 8 sheep, 10 cows and 2 camels

Explain the contribution

Indicate that: A contribution is the cost of insuring livestock. It is obtained by multiplying the sum assured by the set percentage of the specific division. The TLU for the insured herd has been converted into contribution payable in different divisions and for different livestock as shown in table 8:

Table 8: Contributions for different types of livestock in Isiolo

Divisions	PREMIUM	Kshs per TLU Cattle	Camel	Sheep/Goat
CENTRAL ISIOLO	9.31%	1303	1825	130
GARBA TULLA	8.72%	1221	1709	122
KINNA	9.44%	1322	1851	132
MERTI	5.48%	767	1073	77
SERICHO	5.60%	784	1098	78
OLDONYIRO	8.89%	1245	1743	124

Exercise:

Divide the trainees into groups and issue them with calculators to calculate contract contribution for Wario from **Kinna division** and Abdulahi from **Central Isiolo division** and report on their answers.

Group 1: Wario has 20 goats, 30 sheep, 5 cows and 3 camels.

Group 2: Abdulahi has 5 goats, 8 sheep, 10 cows and 2 camels

Expected answers are shown in table 9 and 10

Table 9: Contribution Calculation for Wario

Covered Livestock (1)	Number of Livestock (2)	Premiums rates% (3)	Total contributions (15%) (4)= Column (2) * (3)
Cattle	5	1322	6610
Camel	3	1851	5553
Goat	20	132	2640
Sheep	30	132	3960
Total Contribution			18,763

Table 10: Contribution Calculation for Abdulahi

Covered Livestock (1)	Number of Livestock (2)	Premium Rates (3)	Total contributions (15%) (4)= Column (2) * (3)
Cattle	10	1303	13030
Camel	2	1825	3650
Goat	5	130	650
Sheep	5	130	650
Total Contribution			17,980

Explain that the contribution is:



1. ***Paid once for a contract period (either in January/February or August/September) and is valid for one year***
2. ***Non-refundable***
3. ***Dependent on the division you reside***
4. ***Dependent on the number and type of livestock you wish to insure***
5. ***Nontransferable from one period to another***

Insurance compensation (Payouts): How to determine the amount of settlement

Settlements are made when the trigger level is below for example the 20th percentile. Payouts depend on the total value livestock covered. In this example we will take an insured value for

9 cows and 10 goats which is equals to 10 TLU. The total value of insured livestock is therefore 14,000 KES * 10 = 140,000 KES.

Summarize the key learning points of this session:

- i) The sum assured is the value of insured livestock. It is obtained by multiplying the amount of money required to keep livestock alive during a period of drought related forage scarcity by the number of livestock that one has insured
- ii) Contract contributions are the cost incurred for one to buy an insurance contract. For IBLI, the contract contributions are set at the division specific rate of sum assured for all the six divisions in the Isiolo County.
- iii) The Cumulative change (increase or decrease) of NDVI index is monitored per division. Hence the compensations will only be made when the current seasonal Cumulative change (increase or decrease) of NDVI index level of a given division exceeds (below the 20thpercentile) the strike level or drought indicator level.
- iv) Different divisions are expected to receive different levels of compensation because the indices for the different divisions may not be the same.
- v) Expected compensations are based on the cumulative NDVI index and not individual losses therefore loss assessment is not required.

Lesson Evaluation

Evaluate whether the lesson objectives have been met by asking the trainees the following questions:

- i) How is the sum assured calculated?
- ii) What are the different livestock covered under IBLI and how are the contributions collected?
- iii) What are the justifications for division based specifications for IBLI coverage?
- iv) How are compensations determined?

Have group discussions on the questions and ask one of the group members to present the answers. Based on the answers ask other members of different groups to clarify any misconception that may exist. The trainer should act as a facilitator.

Announcing the index: Color legend maps

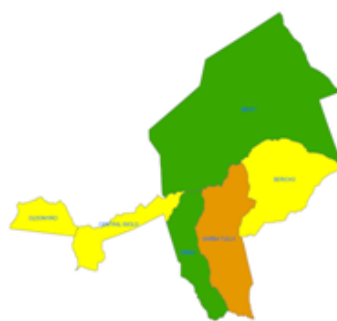
The IBLI color legend describes the state of the index in a simple and easy to understand format. Index announcements will be presented in the format shown in figure 7. The actual index percentage will only be presented when the index is below the trigger level (Red or Black color) as this is where the index number signifying the increasing forage scarcity becomes important for insurance payouts. Insurance payouts are made if the index is below the 20thpercentile during the dry seasons in August and February

Figure 5: Sample of Color maps (put the latest forage maps)

Long Rain Long Dry 2012



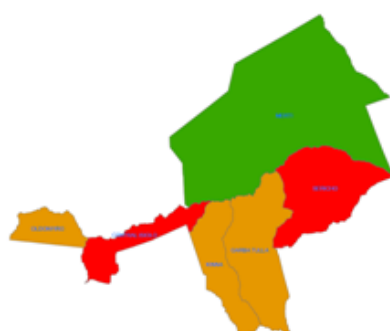
Long Rain Long Dry 2013



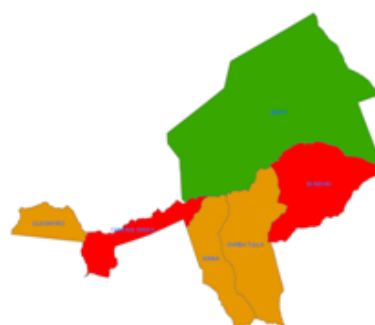
Long Rain Long Dry 2014



Short Rain Short Dry 2012



Short Rain Short Dry 2013



Green	Good forage availability. Represents above 70 th percentile of forage conditions over time. This is above normal and stable forage condition.
Yellow	Forage condition falls between 50 th to 70 th percentiles. The forage situation is around or slightly above normal.
Orange	Forage condition is between 35 th and 50 th percentile. The division in question is under considerable stress and below long term average but conditions are not yet serious.
Red	Forage condition is between 20 th – 35 th percentiles. Drought situation is serious but not yet classified as severe. Indemnity payout will not be triggered.
Black	Severe drought condition. Forage condition represents worst 20 th percentile. Indemnity payout will be triggered if conditions persist throughout the season up to the potential payout period.



Improving seasonal forage conditions

Season with the worst forage conditions of the 100 seasons

Season with the best forage conditions of the last 100 seasons

Explain that: The five different colors will represent the current regime and also what the colors indicate

Lesson 5: IBLI Purchase and Compensation Processes

Lesson Objectives

By the end of this session the trainees should be able to:

- i) Describe the IBLI purchase process
- ii) Describe IBLI compensation processes
- iii) Explain the IBLI Contract Sale Period and potential compensations

Methodology

- Illustrations
- Lecture
- Question and Answer

Training and Instructional materials

- Flip charts
- Tape
- Computer and LCD projector

Time: 1hour

Activities

- i) **Description of the IBLI purchase process**
- ii) **Description of the IBLI settlement process**
- iii) **Explanation of the IBLI sale period and potential compensations.**

Describe the following procedure for the purchase of IBLI

1. Visit your nearest Insurance agent
2. Present your original id and receipt)
3. Present your registration details i.e. your name, telephone number
4. You will receive a message confirming your registration for IBLI on your phone
5. Agent will enter the type and number of livestock you wish to insure e.g. 10 camels, 5 cows, 20 goats and 10 sheep.
6. Agent will enter your division i.e. name of the division
7. After registration by agent, the contribution will be automatically calculated and you will pay the amount to the agent.
8. You will receive an SMS confirming purchase of IBLI with details of animals covered, contributions you have paid and the total sum insured along with the 'customer protection' message.
9. Insurance agent will issue you with a receipt card with your name, policy number and livestock insured

Keep this card safe because you will present it should there be a pay-out. You will also present you ID card.

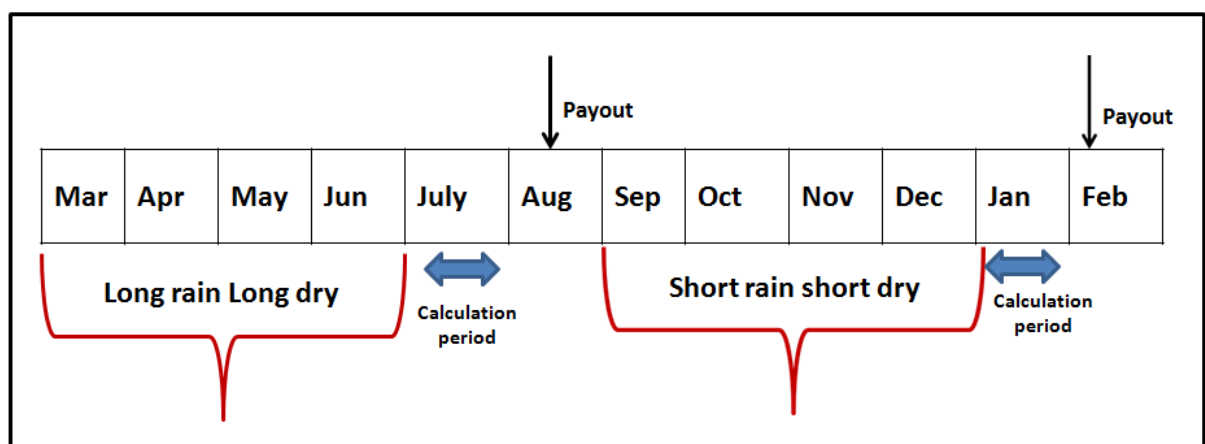
Describe the following compensation process for IBLI product

1. Obtain confirmation of pay-out via SMS through your mobile number (. Kindly collect KES..... from your agent with your original identification card and original receipt.
2. Visit Insurance appointed Agent
3. Carry along your Original ID Card together with the original Insurance Livestock Cover Receipt
4. The policy number is very important to remember and note
5. Agent will verify by entering your ID number into system and will get a transaction approved notification confirming the details of insured and the amount to pay him.
6. After successful confirmation and approval of transaction, the Agent hands over the money to insured
7. Insured signs agent register to confirm amount received

Explain the IBLI Contract Sale Period and potential compensations

Display figure 6:

Figure 6: IBLI Contract sale period and potential compensations



Explain that: For this IBLI contract the potential payout is at the beginning August and beginning February for the LRLD and SRSD respectively.

Stress to the trainees that: The occurrence of drought does not mean that compensations will be automatically made. The drought severity must be such that the trigger level is exceeded. The level of compensation is also based on the number of animals insured

Lesson Evaluation

Evaluate whether the session objectives have been met by asking your trainees the following questions:

- i) Describe the IBLI purchase process
- ii) Describe the IBLI settlement process
- iii) When are the sales made for the for the IBLI contract?
- iv) How many potential settlements are there in the IBLI contract period?
- v) When are the potential settlements made if the conditions for compensations are met?

Ask the trainees to discuss amongst themselves in a group and then to role play the process. The other members should be evaluating the accuracy of the process enacted. Based on the role plays, other members will clarify any misconceptions that may exist. The trainer acts as a facilitator.

Lesson 6: The value of IBLI to the pastoralists

Lesson Objectives

By the end of the session the trainee should be able to:

- Explain the value of IBLI to potential clients
- Identify the ideal method of creating awareness of IBLI product features to target clients
- Identify the ideal approach to reaching the potential clients

Methodology

- Question and answer,
- Discussion

Materials

- Flip charts
- Note cards
- Markers
- Pens
- Tape
- Computer and LCD projector

Time: 1 Hour

Explain the value of IBLI to potential clients

Pose to the trainees: What factors would you consider before buying a given product? List their responses on a flip chart

The rational consumer will only buy those goods and services that add value to their lives. The key factors that consumers consider before buying a service include:

- i) Satisfaction of current need
- ii) Affordability of the service

iii) Clarity of the service features

Ask the trainees: Does IBLI product features as explained in the preceding sessions fulfill the key factors that consumers consider before buying a service?

Go through each of the factors one by one with the trainees and discuss the extent to which the IBLI product fulfils them:

- i) The recurrent drought problem is a current need for the pastoralist
- ii) The contributions are set at affordable levels
- iii) Concerted efforts have been made to clarify the product features- explore the opinion of the trainees about the clarity of the IBLI product features.
- iv) Ask the trainees to work in groups and to come up with a 1 minute pitch about IBLI- 'how would you describe IBLI to a pastoralist if the only given time he had was 1 minute' Make sure that this 1 minute pitch covers the important features of IBLI.

Ask the trainees to: Identify the potential benefits of IBLI to pastoral communities based on the knowledge gained on the IBLI product features in the previous training sessions. List their responses on a flip chart

The potential benefits to the pastoralist communities which include among others the following:

Socio-psychological benefits

- i) Emotional protection from risks of losses
- ii) Maintenance of social status in the society

Economic benefits

- i) Cost effective.; the contribution is affordable to pastoralists and potential compensation is adequate
- ii) Economic stability; households will be cushioned against losses caused by drought
- iii) Improved quality of life and protection from the dehumanizing effects of poverty

Indicate to the trainees that: Based on the benefits above, strong efforts should be made to raise awareness of the IBLI product among pastoralists and agro-pastoralists so that they can make informed decisions in dealing protecting their livestock from drought related (forage scarcity) deaths.

Creating awareness of the IBLI to the pastoralist community

Ask the trainees to role play how they would create awareness amongst the pastoralists. After each group has performed, ask them which communication method in their opinion is most suitable for creating awareness of IBLI to pastoralists?

Explain to the trainees that: There are many communication platforms today with varying degrees of success in creating awareness about different goods and services. The choice of method of communication is dependent on many factors like level of education and nature of the product.

The target clients are pastoralists and agro-pastoralists. They are often:

- i) Mostly illiterate or have very limited literacy
- ii) Generally unfamiliar with the concept of insurance
- iii) Situated in a remote and infrastructure deficient areas
- iv) Are constantly moving in search of pasture for their livestock

Consequently the mode of delivery of the information about IBLI product to the pastoral communities will be *personal (face to face) communication* through lead agents. These lead agents have been identified as the ideal way of educating the pastoralist because they are relatively literate, are be part of the pastoral communities and can therefore explain the product details using local dialects.

Reasons why personal (face to face) communication is considered ideal for creating awareness about IBLI are shown in the table below

Table Reasons why personal (face to face) communication is ideal for IBLI

Reasons why Personal (face to face) communication is ideal for IBLI
i) The target market is largely illiterate or has very limited literacy
ii) Creates intimacy and trust
iii) Communication infrastructure for most of the channels are not well developed in the market areas except personal selling
iv) The pastoral community is an 'oral society'. Word of mouth is more convincing than any other means of promoting and selling
v) The power of referrals from friends, family or opinion leaders is particularly important among the pastoralist communities
vi) The target market is largely community based in nature such that the position of the elders and opinion leaders are revered

Discuss the methods of accessing the target IBLI clients:

Ask the trainees: Which is the best approach of accessing the IBLI target clients and from where?

Possible responses include: Village *Barazas*, house-to-house meetings, public rallies, road shows, congregations at watering points during village water committee meetings. Alternatively, they may be accessed through local development associations, among other information dissemination means. There could also be other means of using the agro-vet dealers, local kiosks where the pastoralists come to access other services.

Engage the trainees in a discussion of the most ideal and cost effective method to be adopted:

- Approaches such as road shows and public rallies are ruled out by their poor cost-effectiveness and the nature of pastoralist settlements.
- The recommended approach in order of preference would therefore be: village *Barazas*, congregations at watering points during village water committees, local development associations and house-to-house meetings, through agro-vet dealers, local kiosk owners

- Any other appropriate method like skits plays, jingles, radio messages, videos

Lesson Evaluation

Evaluate whether the session objectives have been met by asking the following questions:

- Who are the potential target clients for IBLI product?
- What are key factors that consumers look for before buying a service?
- What are the benefits of IBLI product to pastoralists?
- Which is the most appropriate method of creating awareness of IBLI to the pastoralist and why?

Wrap up the training by asking the trainees to inquire on areas of IBLI that are still unclear which you should clarify accordingly. Encourage the trainees to ask as many questions as possible