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GUIDE ON INDEX BASED LIVESTOCK INSURANCE FEATURES
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Risk Covered By IBLI

IBLI covers drought related deaths only, subject to the trigger point being exceeded.
The Index

The index in IBLI is predicted livestock mortality. It is calculated by using a measure of pasture availability that is recorded by satellites, called the Normalized Differenced Vegetation Index (NDVI). This vegetation measure is fed into a response function that relates pasture availability with drought related livestock mortality.

Construction of the index

- Pasture availability data
- Conversion (Response function)
- Prediction of livestock deaths (Predicted Mortality Index)
Prediction of Livestock deaths
Satellite pictures capture forage availability after every 16 days over a period of 12 months. This data is then converted into a predicted livestock mortality index which provides an estimate of drought related livestock deaths. The prediction is not for individual livestock losses but an estimate of livestock losses for an entire division.
The Trigger Point

The trigger point represents the point at which the insurance company should begin making compensations in case of a drought. The trigger point for IBLI is 15%. This means that the insurance company can only make compensation after 15 in every 100 livestock are predicted to have died in a division.

![Graph of Predicted Livestock Deaths and Expected Compensation in Percentages](image)

<table>
<thead>
<tr>
<th>Predicted Livestock Deaths and Expected Compensation (%) of sum Assured</th>
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Average market value of livestock in Marsabit
The predetermined average value of livestock across Marsabit has been set as follows:
Camel- Ksh 21,000
Cattle- Ksh 15,000
Goat- Ksh 1,500
Sheep- Ksh 1,500
Sum assured
The sum assured is the value of livestock insured. It is given by multiplying the predetermined average value of each livestock by the number of livestock being insured. One decides the number of livestock they wish to insure and the insurance company does not require verification of livestock numbers. One may even decide to insure different amounts each period.
Geographical coverage of index
The index – predicted livestock mortality – is given at the division level. That means that North Horr, Maikona, Loiyangalani, Laisamis and Central could all have a different index level. Because insurance payments are made according to the index level, this means that IBLI may make different payments across all the divisions.
IBLI Contract Premiums

The Larger Marsabit District will be covered by two separate contracts. We have the Upper Marsabit contract consisting of Maikona and North Horr divisions, and the Lower Marsabit contract consisting of Central, Gadamoji, Laisamis, and Loiyangalani divisions. Since the risk of insuring livestock is higher in upper Marsabit than in lower Marsabit the premiums for upper Marsabit are 5.5% of the sum assured while those in lower Marsabit are 3.25% of the sum assured.

Premiums are the cost of insuring livestock.

### Premiums for different types of livestock in lower and upper Marsabit

<table>
<thead>
<tr>
<th>Insurable Livestock</th>
<th>Premiums for Marsabit upper divisions in Ksh. per unit</th>
<th>Premiums for Lower Marsabit divisions in Ksh. per unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>(5.5% x 15,000) = 825</td>
<td>(3.25% x 15,000) = 487.50</td>
</tr>
<tr>
<td>Camel</td>
<td>(5.5% x 21,000) = 1,155</td>
<td>(3.25% x 21,000) = 682.50</td>
</tr>
<tr>
<td>Goat</td>
<td>(5.5% x 1,500) = 82.50</td>
<td>(3.25% x 1,500) = 48.75</td>
</tr>
<tr>
<td>Sheep</td>
<td>(5.5% x 1,500) = 82.50</td>
<td>(3.25% x 1,500) = 48.75</td>
</tr>
</tbody>
</table>
Validity of premiums

Premiums are valid for the one year. If they are purchased in the January/February sales window, the coverage is from the first of March of that year to the end of February the following year. Alternatively, if they are purchased in August/September, coverage will be from the first of October to the end of September the following year. The contracts are non transferable from one contract period to another and non refundable once purchased.
Sales period for the IBLI contract
Sales are made between the months of January/February as well as August/September

Temporal Structure of IBLI contract
1 year contract coverage

LRLD season coverage

<table>
<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sale period For LRLD</td>
<td>Period of NDVI observations for constructing LRLD mortality index</td>
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</table>

SRSD season coverage

<table>
<thead>
<tr>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sale period For SRSD</td>
<td>Period of NDVI observations for constructing SRSD mortality index</td>
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</tr>
</tbody>
</table>

Predicted LRLD mortality is announced. Indemnity payment is made if IBLI is triggered

Predicted SRSD mortality is announced. Indemnity payment is made if IBLI is triggered

Potential payouts in the IBLI contract period
There are two potential payout periods in the IBLI contract. There is one in October after the long rains/long dry season in September and the second is in March after the short rains short dry season in February.
Conditions for the payouts to be made

Presence of drought conditions does not necessarily mean that compensations will be 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 (sum assured). In most cases one will buy IBLI and receive no compensation if the trigger level is not exceeded. If one buys IBLI and drought does not occur or if one fails to buy IBLI when drought occurs he/she receives no compensation.
Determination of compensations

Compensations for a division can only be made for livestock losses above 15%. If say the predicted livestock losses are 25%, compensation will be for \((25\%-15\%=10\%)\)

If say their sum assured is Kshs 100,000 the compensation in this case will be 10 divided by 100 then multiplied by 100,000 

\[
(10 \div 100) \times 100,000 = \text{Ksh 10,000}
\]

The payouts are not based on individual losses but on predicted deaths for a division and number of livestock insured.
Historical index readings for reference

Lower Marsabit
Historical payouts in the last 5 years

Upper Marsabit
Historical payouts in the last 5 years
What are the benefits of IBLI product to pastoralists?

Socio-psychological benefits
i) Emotional protection from risks of drought related livestock losses
ii) Maintenance of social status in the society
iii) Improved quality of live– safeguard against dehumanizing effect of poverty

Economical benefits
i) The premiums are affordable to pastoralists
ii) Economic stability – households will cushioned against losses caused by drought, which may make them sink into poverty.