



INSURANCE REGULATORY AUTHORITY

THE KENYA INDEX-BASED INSURANCE  
POLICY PAPER

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## **EXECUTIVE SUMMARY**

The Index-based Insurance Policy Paper maps out the future path for Kenya's index-based insurance regulation and supervision. The report makes policy recommendations for a regulatory framework that builds on the foundations set out in the new Insurance Act.

The policy recommendations were made by analysing reports written by international experts in the field and by consulting the local insurance industry to understand their concerns and requirements.

The key finding is that index-based insurance should be sold as fixed sum or agreed value insurance, instead of indemnity insurance. This avoids creating products that focus on minimizing basis risk and that fail to meet policyholders' expectations when payments received do not indemnify them against the full extent of their losses. Instead, fixed-sum products address the true underlying risk – for example that there is insufficient rain, instead of that your crop will be less than expected – and can also be designed to cover the risk of consequential and mitigation costs.

The key recommendations from the report include the following.

- Insurable interest should allow for wider economic interests. Therefore, in order to be eligible the policyholders should have to show only that the occurrence of the risk would be adverse to their interest.
- The contract should use an index that is easily observable and measurable and the value of which is objectively and independently verifiable, in order to build trust that the pay-out correctly reflects the experience and resulting contractual benefit.
- The reporting and capital requirements of insurers selling these products should reflect the unique risks and nature of these products. Therefore, the Authority should require the insurer to adjust the valuation method used and hold appropriate risk based capital.
- The insurer should initiate the pay-out process and an independent arbitrator should review the pay-outs made, to reflect the fact that the knowledge of where a benefit is due rests with the insurer, not the insured.

These recommendations aim to create an environment that will encourage the development of the index-based insurance industry, while still providing sufficient customer protection.

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## **ABBREVIATIONS**

AKI	Association of Kenyan Insurers
FSD	Financial Services Deepening
IAIS	International Association of Insurance Supervisors
ICT	Information and Communications Technology
ILO	International Labour Organization
IRA	Insurance Regulatory Authority
MFI	Micro Finance Institution
MI	Microinsurance
NGO	Non-Government Organisation
SLA	Service Level Agreement

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Lastly, thanks to all the staff at the IRA, in particular Joseph Owuor, who gave their time to discuss the necessary background information and gave insight into all the various regulatory areas touched on by the policy paper. Without their time, the paper would not reflect the realities of the Kenyan regulatory environment.

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## **1.0 PURPOSE OF THE PAPER**

Index-based insurance is a type of insurance under which the payment to the insured is based not on the assessment of the insured's actual loss, but on the measured value of an objective and independent index. Therefore, the index serves as a proxy for the actual loss.

Although index-based insurance can be used to mitigate or reduce the impact of a wide range of risks, its most prominent use in the developing world is to manage weather risk, in particular in the agricultural sector.

Agricultural index based insurance, in the form of area-yield insurance, can claim a reasonable long history in theory, if not in practice. Index-based crop insurance was independently developed in 1920 by an Indian scholar – Chakracarti – and in 1949 by an American academic – Halcrow. However, it was only in the 1950s that the first market product for area-yield insurance was offered. In 1980, the Indian government introduced area-yield insurance for cropping districts.<sup>1</sup>

Due to its relatively short history, very few countries have developed the legal and regulatory frameworks necessary for index-based insurance products. Therefore, it is not unexpected that Kenya does not currently have a legal and regulatory framework for the regulation and supervision of these products.

However, index based agricultural insurance products have been launched in Kenya with the support of the Insurance Regulatory Authority (“the Authority”). These products have been developed as pilot projects, for which the Authority has granted certain exemptions, enabling them to be sold by insurers.

In order to formalise the legal and regulatory framework for index-based insurance and to allow current and future products to move beyond the pilot phase, the Authority has decided to develop and issue specific Regulations, which will be issued under the proposed new Insurance Act once it is enacted.

The purpose of the policy paper is to support the writing of the index-based insurance regulations by assisting on the development of the policies that will be implemented by the Regulations.

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<sup>1</sup> (GlobalAgRisk - Carpenter, Richard, 2012, pp. 4-5).

## **2.0 BACKGROUND**

This section of the paper provides a summary of the key aspects of index-based insurance, focussing on the legal definition and the features of the product that should be considered when designing an index-based insurance contract.

This will lay the foundation for understanding the Regulations necessary to support the sustainable development of the industry.

### **2.1 Introduction to index-based insurance**

The principles of index-based insurance is the most easily explained in context of its most frequent application – weather index insurance (or WII). The same principles apply to other applications.

Conventional crop or livestock insurance relies on direct measurement of the loss or damage suffered by the farmer. However, field loss assessment is normally costly or not feasible, particularly where there are a large number of small-scale farmers or where insurance markets are undeveloped.

The essential feature of WII is that the insurance contract responds to an objective parameter (e.g. measurement of rainfall or temperature) at a defined weather station during an agreed time period. The parameters of the contract are set so as to correlate, as accurately as possible, with the loss of a specific crop type suffered by the policyholder. All policyholders within a defined area receive pay-outs based on the same contract and measurement at the same station, eliminating the need for in-field assessment.

Typical features of a WII contract are:

- A specific meteorological station is named as the reference station;
- A trigger weather measurement is set (e.g. cumulative millimetres [mm] of rainfall), at which the contract starts to pay out;
- A lump sum or an incremental payment is made (e.g. a dollar amount per mm of rainfall above or below the trigger);
- A limit of the measured parameter is set (e.g. cumulative rainfall), at which a maximum payment is made; and
- The period of insurance is stated in the contract and coincides with the crop growth period; it may be divided into phases (typically three), with each phase having its own trigger, increment and limit.

WII is not a panacea. It is best suited to weather hazards that are well-correlated over a widespread area and where there is a close correlation between weather and crop yield. The strongest relationships typically involve a single crop, a marked rainy season and no irrigation. To date, most WII efforts have focused on the risk of rainfall deficit (drought).

WII is less useful where more complex conditions exist. Localized risks, such as hail, or where microclimates exist (for example, in mountainous areas) are not suitable for WII. Similarly, the scope for WII is limited where crop production is impacted by many or complex causes of loss (as may be the case in the humid subtropics), or where pests and disease are major influences on yields. For a given environment, other insurance products may be more appropriate (such as area-yield index insurance or named-peril crop insurance).<sup>2</sup>

## **2.2 Definition of an index-based insurance contract**

The fundamental element of an index insurance contract is that the liability to make a payment under the contract is triggered by, and the amount of the payment is based on, the measured value of an objective and independent index. The liability is therefore not based on the proof of a specified loss or an assessment of the amount of the insured's actual loss.

There are many different ways to define an insurance contract. Typically an insurance contract is regarded as having the following core elements:

- Payment by one party (the insured) of a premium to the other party (the insurer);
- The agreement by the insurer to accept the transfer of risk of an uncertain event occurring at some future time;
- The uncertain event must be out of the control of both the insurer and the insured;
- The agreement by the insurer to make a payment to, or on behalf of, the insured or to provide a valuable service or other benefit to the insured on the occurrence of the risk, without further payment (or significant payment) by the insured (subject to the limits of the contract); and
- A specified period for when the contract is in force.

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<sup>2</sup> (WFP and IFAD, 2011)

However, this description serves equally well to describe the structure of other types of non-insurance risk-transfer contracts, such as derivatives.

The difference between insurance and any other type of non-insurance risk-transfer product does not lie in the structure, but:

- that there must be a clear link between the insured event and the insured; and
- to some extent, on how well it achieves its design objectives.

The first requirement is sometimes captured in law as requiring that the insured has an insurable interest in the subject matter of the insurance contract. Another way for the link to be expressed is that the insured risk must be adverse to the insured. In other words, the occurrence of the insured risk will in some way harm or damage the insured or cause the insured loss.

If it is classified as an insurance product, the person buying the product has the assurance that the provider is regulated as an insurer. Non-insurance risk transfer products, such as derivatives, have a very different legal and regulatory status, with lower prudential requirements imposed on the counter party accepting the transfer of risk. A derivative contract may not, therefore, provide the party transferring the risk with the same level of protection as the insured would have under an insurance contract.

Therefore, if the risk transfer products are sold to non-sophisticated counterparties, such as households, farmers and small businesses, it is important that they should be sold as insurance, and regulated and supervised as such.<sup>3</sup>

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<sup>3</sup> (GlobalAgRisk - Carpenter, Richard, 2012)

### **2.3 Legal, regulatory and design issues to consider**

It is considered that, if well designed, an index-based contract can be positioned to meet the elements of an insurance contract outlined above and to be considered as a specific type of insurance contract. However, certain aspects of an index contract are unique to this type of insurance and pose specific legal and regulatory risks. When designing index-based insurance products, these unique legal and regulatory aspects must be specifically considered.

Any contract is subject to legal risk. If the contract is challenged in court, the court may place a different legal interpretation on the contract that was intended. The most obvious legal challenge to an index insurance contract would be one brought by a policyholder who feels that a pay-out from the contract does not match the losses suffered by the policyholder.

The legal risks to consider and their possible implications are:

- i. That the contract does not fall within the legal definition of insurance. This could result in a lack of enforceability;
- ii. The relationship between the parties to the contract (the contract between the insurer and insured) and any beneficiaries under the contract (the effect of the contract on third parties) is unclear. This could result in the uncertainty over to whom the pay-out should be made.
- iii. That a person without an insurable interest purchases the contract. Should an insurer be required to ensure that purchasers have an insurable interest and what will the consequences be if a person without an insurable interest does purchase the contract?
- iv. The legal risks that may arise if the product is purchased by groups of farmers not organized as a legal entity, such as a cooperative, or by labourers on the farm, whose insurable interest is not based on their land ownership but on their agriculture labour income that they earn from the land. Is this adequate for an insurable interest? Can the contract be enforced?

The regulatory risks (from the perspective of the insurer) to consider and their possible implications are:

- v. Does the index insurance product, although legally insurance, fall in a class of insurance business for which the insurer is not licensed or authorized;
- vi. That the innovative delivery systems required to market index-based insurance products are not permitted by the regulator;
- vii. That the pay-out method to the beneficiaries, where the policyholder and the beneficiaries are separate, is not accepted by the regulator, limiting the contract design flexibility.

The regulatory risks (from the perspective of the regulator) are:

- viii. The technical provisions applicable to general insurers do not fully reflect the financial risks associated with index insurance products;
- ix. The general market conduct requirements do not adequately protect policyholders and potential policyholders under index-based insurance products.

The regulatory framework must balance regulatory risk against the risk that high compliance costs will deter insurers from offering index insurance products and that a rigid regulatory framework will constrain innovation.

The unique nature of index-based insurance also has contract design implications, which need to be considered for the regulatory framework. For example:

- x. Should the contract give the policyholder any rights to cancel the contract on notice, for a partial return of the premium? Contract cancellation by either the insured or insurer can result in excessive adverse selection or reduction in the consumer value of the product; and
- xi. Should formal notice of a claim be required to be submitted by the insured before the insured is entitled to receive payment under the contract? This is not appropriate for an index insurance contract where the knowledge is vested in the insurer.

The proposed regulations and design requirements that aim to address the risks of index-based insurance will be given in section 5.

## **2.4 Contract types covered by index-based insurance**

The spectrum of risks that affect the income of producers is quite broad. The two predominant risks are:

- Price risks, reflecting variations in market prices for agricultural commodities and production inputs; and
- Production risks, which encompasses variations in the volume or quality of the commodity produced.<sup>4</sup>

Price risks are best dealt with through the use of financial indices or instruments, which are typically not considered to be insurance contracts. Therefore, the index-based insurance contracts covered by the index-based insurance Regulations should only focus on contracts that cover production risks.

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<sup>4</sup>(UN, March 2007)

## 2.5 Types of index-based insurance products

There are many possible forms and uses of index-based insurance. However, crop and livestock insurance are the only forms of index-based insurance currently sold in Kenya. In this section the discussion is therefore limited to the following index-based insurance products that are used in the agricultural sector:

- i. Area yield index insurance (AYII). Here the pay-out is based on the realized average yield of an area such as a county or district, not the actual yield of the insured party. The insured yield is established as a percentage of the average yield for the area. A pay-out is made if the actual yield for the area is less than the insured yield regardless of the actual yield on a policyholder's farm.
- ii. Weather Index Insurance (WII). Here the pay-out is based on realizations of a specific weather parameter measured over a pre-specified period of time at a particular weather station. The insurance can be structured to protect against index realizations that are either so high or so low that they are expected to cause crop losses. A pay-out is made whenever the realized value of the index exceeds a pre-specified threshold (for example, when protecting against too much rainfall) or when the index is less than the threshold (for example, when protecting against too little rainfall). The pay-out is calculated based on a pre-agreed sum insured per unit of the index.
- iii. Index-based Livestock Insurance (IBLI). In Kenya this product's pay-out is based on the measurement of the Normalized Difference Vegetative Index (NDVI), which is based on satellite imagery. NDVI imagery can be used not only to (1) distinguish between different types of land use cover for example, vegetation, from areas of sparse vegetation or bare soil, water and ice, but also (2) to measure the condition of the vegetative cover and to distinguish between healthy growing vegetation and vegetation which is dry or dead. Pay-outs in all of these programs are determined based on the negative deviation of actual NDVI values in the insured area from the NDVI mean within the period of cover.<sup>5</sup>

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<sup>5</sup> (World Bank, 2011) ; (World Bank, 2013)

Takaful versions of index-based insurance also exist and pilots based on this type of insurance are currently running in Kenya. This policy paper does not discuss the policy requirements necessary to make index-based insurance Shari'ah compliant. This does not mean that takaful versions should be ignored, but only that the paper assumes that the Authority will appropriately translate these principle into a Shari'ah compliant version when developing a regulatory and supervisory framework for takaful.

## 2.6 Market sectors for implementing index-based insurance

There are three broad market sectors to which index-insurance can be sold. These are the micro, meso and macro level implementation models and are summarised as follows:

- i. At the micro level, the policyholders (the insurer's customers) are farmers, households or small-business owners, who purchase insurance to protect themselves from potential losses caused by adverse events, such as weather events. Micro level policies can also be distributed to farmers by organizations such as farmers' associations, input suppliers, processors or NGOs through individual or group insurance policies.

By helping farmers manage their weather risk, index-based insurance can help unlock development opportunities for poor smallholders, such as access to credit or higher-quality inputs.

- ii. At the meso level, the policy holders are typically input suppliers, MFIs and other players along the value chain. Here the index-based insurance is issued to the organisation that will also receive the pay-out if the insured risk occurs. This type of cover sometimes takes the form of portfolio cover, so that the farmer in question may not necessarily even be aware of the cover nor be covered himself.

At the meso level, the index-based insurance opens access to a new client base and helps manage mass defaults caused by weather shocks. Meso-level actors can develop innovative linkages along the supply chain (e.g. contract farming, packaging of credit, and inputs) to help manage their risk and open market opportunities.

- iii. Finally, index insurance can also be sold at the macro level, to aid national and local governments and relief agencies in development and disaster management by giving early liquidity following disasters.

While intervening at the micro and meso levels it can be useful to analyse how any new index-based insurance initiative would integrate with existing macro risk management policies, and equally how these policies may impact on incentives for index-based insurance.<sup>6</sup>

It is therefore clear that index insurance should not only be considered as a form of microinsurance and requires a separate regulatory framework.

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<sup>6</sup> (WFP and IFAD, 2011)

## **2.7 Issues to consider when implementing index-based insurance**

This section discusses the main challenges that exist for the implementation of index-based insurance and discusses possible way to address the main challenge – basis risk.

The benefits and disadvantages for using index-based insurance are well documented in other reports and therefore will not be discussed in this paper. For more information on the benefits and disadvantages, please refer to the reports listed in the bibliography.

### **2.7.1 Challenges of implementing index-based insurance**

Despite the apparent advantages of index-based insurance products, practical implementation through pilots and feasibility studies have shown that there are a number of challenges inherent with these products.

These challenges are mentioned here since the regulations around the approval of the products and the supervision of the insurer need to address these challenges and create an environment where they will be minimized.

The key challenges are:

- i. *Basis risk.* Basis risk is the most problematic feature of index insurance. It is the difference between the pay-out as measured by the index and the actual loss incurred by the farmer.
- ii. *Data availability.* Although index insurance does not require significant individual policyholder data (such as records of losses at the farm level), accurate and complete aggregate data sets are required. Data required may include historical records of the chosen weather parameter(s) for underwriting and pricing purposes and for the recording of the parameter(s) for pay-out calculations during the period of insurance. Sufficient data of adequate quality may not be available.
- iii. *Integrity of weather stations.* Weather stations used for index insurance must be sufficiently secure to prevent tampering. Automatic recording of data, as opposed to manual recording, is generally preferable (but requires higher upfront investment). The degree of integrity has a direct impact on the cost of the uncertainty loading that goes into the insurance premium.
- iv. *Need for farmer/insurer/regulator capacity building and education.* Index insurance is a new concept for farmers, and therefore any rollout of the product requires intense education programs to help them to understand

the principle of the pay-out system and the risks the product actually covers

- v. *Currently limited product options for different weather risks.* The majority of index-based insurance products have been designed for rainfall risk, which is not necessarily the most serious or prominent weather risk in many areas.<sup>7</sup>
- vi. *Understanding the product provided.* There is a need to raise awareness of the limited role that weather insurance has in managing the larger spectrum of risks farmers face and to control those risks as much as possible within the program. For example, index-based insurance products cannot be used to manage the risks of unmanageable pests.
- vii. *Frequency at which the policy is expected to pay out.* The expected pay-out frequency and the premium charged will influence the perceived client value of the product. A product that pays out only for catastrophic risks (that only occur in say 1-in-20 years) will be more affordable, but will not always pay-out when the policyholder expects it to pay out.

Although a product that pays out frequently may gain the policyholder's trust, it will be expensive and is unlikely to be an efficient way for the policyholder to manage the risk. The risk covered and the expected frequency of pay-out should be clearly communicated to policyholders.

### **2.7.2 Addressing basis risk**

As mentioned in the previous section, the main challenge faced by index-based insurance is dealing with the impact of basis risk. There are three types of basis risk:

- *Spatial basis risk.* Local variations in the peril occurrence (e.g. rainfall) within the area surrounding a weather station.
- *Temporal basis risk.* Inter-annual variations in seasonal crop phases, meaning that the insurance phases are not temporally aligned with the intended crop growth stage.
- *Product basis risk.* Crop losses can be caused by many factors. Where there is no clear-cut relationship between loss and the indexed weather peril, basis risk can be high. Weather based insurance is most likely to

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<sup>7</sup> (World Bank, 2011)

work for rain-fed crops and at severe levels of the event, when losses may be more widespread and homogeneous. For example, weather based insurance will not be able to capture the losses caused by pests in a season where the rainfall levels were normal.<sup>8</sup>

The nature of index-based products means that basis risk can never be totally eliminated. Basis risk can be reduced by following certain contract and product design principles, including those set out below. However, adopting some of these principles may increase the costs of the product, perhaps significantly, or may reduce the flexibility of the product. There is, therefore, often a trade-off between reducing basis risk and the price and flexibility of the product. The appropriate balance will need to be determined by insurers on a product-by-product basis. These principles are not, therefore, offered as recommendations but as matters that may need to be considered when designing a product.

- i. *Concentrating policy pay-outs on catastrophic events (e.g., very little rainfall).* Severe droughts are very likely to adversely affect crop yields over a wide area, increasing the likelihood that of the index correctly indicating the need for a pay-out.
- ii. *Making use of claims assessment (fall-back) approaches.* Inspections at sentinel farms provide ground-truthing to the index and serve as a fall-back mechanism when farmers incur losses, despite the lack of an index trigger. This will also over time help improve the accuracy of the index. However, this approach does add costs and is open to vulnerabilities related to human judgment and manipulation.
- iii. *Make use of hybrid indices.* Combine different types of indices to give a more accurate pay-out e.g. area yield measures (for precision) with weather indices (for speed) or weather station data with satellite data.
- iv. *Reorient to a portfolio insurance type of cover.* Claims are paid to the owner of the portfolio – who is also then the policyholder – who determines how claims are adjudicated<sup>9</sup> or whether it just informs their write - off policy.
- v. *Make more use of macro and meso programmes.* These types of programmes have a greater leniency towards basis risk. This is because the organisations using them can diversify their risk at the larger

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<sup>8</sup> (WFP and IFAD, 2011)

<sup>9</sup> Although care would need to be taken to ensure that a policyholder in this position does not become, in effect, an insurer.

portfolio level, with excess payments received in one region compensating for insufficient payments in another region.

### **3.0 CURRENT STATUS OF INDEX-BASED INSURANCE**

The features of the index-based insurance market can be analysed from different points of view. This section gives a brief summary of the three main aspects influencing the market – the demand for index-based insurance from the public, the supply of index-based insurance by insurers and the regulatory framework and environment for index-based insurance. This will help inform what is currently prohibiting the development of the index-based insurance market and therefore what policy changes are needed to encourage its future growth.

#### **3.1 Demand Side**

No specific demand side investigation has been done into the Kenyan index-based insurance market. Therefore, the comments in this section reflect the experience reported by the companies currently involved in this market.

##### **3.1.1 Use of insurance**

As with conventional insurance, there is currently a lack of trust in insurers. Therefore, farmers would rather use informal risk mitigation strategies, which have been relied on for generations, than buy insurance for their crops or livestock.

##### **3.1.2 Perception of Insurance**

The perception of index-based insurance has also be influenced by the following factors:

- i. Currently, the most successful method of distributing the product relies on compulsory purchases by farmers in order to get access to agricultural micro loans. Therefore, policyholders see it as another expense that they have to incur, rather than something that adds value to their lives and potentially reduces the overall cost of, and increases their accessibility to, credit.
- ii. Index-based insurance is a very complex product and is difficult to understand, even for people with experience in insurance. Therefore, the current low-income target market does not understand how the product works, when it is expected to pay or what the benefits of the product are.
- iii. Even when policyholders understand the product and have recently received pay-outs, they are still reluctant to buy the product if it is not compulsory.

All three issues highlighted here reduce the demand for index-based insurance products. The industry, in cooperation with the Authority, should address these issues by providing consumer awareness and education on how the product works, under which circumstances it is expected to pay benefits and what benefits it brings, especially concerning access to credit.

## **3.2 Supply Side**

The key issues that are influencing the supply of index-based insurance are:

### **3.2.1 Availability of data**

Index-based insurance is a very new type of product. Therefore, the industry does not have good sources of historical data needed to design and price index-based products. The data needed is also very specific and technical in nature, which makes it very hard to be substituted or approximated with other sources. This results in the following problems:

- i. The data is sometimes owned or controlled by private organisations that have an incentive not to share it;
- ii. Insurers are very reliant on third party data providers, since insurers are seldom capable of collecting the data themselves. This can result in delays in ascertaining the value of the index and the payment of claims.

In order to address these issues, there needs to be closer cooperation between the industry and government in order to build the infrastructure necessary to capture the data and allow wider access and less duplication of the data.

In relation to certain types of products, there may also be a need for an independent body responsible for verifying the accuracy of the index data.

### **3.2.2 Current index products sold as microinsurance**

As many index-based insurance products are currently sold as microinsurance, and target the same low-income target market, the supply side issues experienced in relation to index-based insurance are similar to those experienced in relation to microinsurance. These include:

- i. Generally there is a poor perception of insurance, high insurance illiteracy levels and a poor understanding of the products.

- ii. There exist informal risk mitigation mechanisms which makes low-income households hesitant to embrace insurance as a suitable risk transfer measure.

### **3.2.3 Capacity of insurers to underwrite index-based insurance**

Insurers lack the necessary capacity to develop and underwrite the products and process the claims. The result is that:

- i. The market is over reliant on a few key institutions that have the necessary expertise. This reduces product innovation and the ability of insurers to expand their presence in the market.
- ii. There is a lack of reliable IT solutions to facilitate successful potential real time transmission of information and cost effective operational processes to manage large volumes of small policies.
- iii. Insurers are struggling to keep the transaction and administrative cost low, while the current commission caps makes it hard to incentivise agents to sell the products.

### **3.2.4 Distribution**

Agricultural insurance is different from other classes of insurance in that the most efficient lines of distribution are agri-input dealers, co-operatives and NGO's. These lines of distribution must currently be licenced to enable them earn commission. However, very few are.

### 3.3 Regulatory Environment

The following summary discusses the current state of the index-based insurance legislative and regulatory environment in Kenya. This should be taken into account in designing the policy framework.

- a) The Authority has been very supportive of the development of pilot index-based insurance products. It has allowed these products to be sold without the existence of the necessary regulatory framework for these products by granting them regulatory exemptions. However, this is not without risk:
  - i. The pilot products may need to be redesigned once the formal regulations and product approval guidance come into force. This would result in addition costs for the product developers and underwriters or may even require an insurer to cease developing and selling the product;
  - ii. A legal challenge could be brought by a policyholder who feels that a pay-out from the contract does not match the losses suffered. If the courts feel that the approved contract does not meet the requirements of an insurance contract, this could impact the pay-outs and enforceability of all index-based insurance contracts; and
  - iii. Due to a lack of formal oversight, badly designed products are sold. This could result in products that deliver bad value for money or products that fail to meet the consumer's expectations or their needs.
- b) The Authority currently requires the classification of index based insurance under General Insurance business in the "Miscellaneous" class. However, the implications are that:
  - i. The commission caps that apply to the "Miscellaneous" class are not appropriate for index-based insurance products, especially if it is to be targeted at the low income market.
  - ii. Grouping index-based insurance with other types of agricultural insurance and with bond insurance makes it difficult to analyse the success of this product category. It also limits index-based insurance to agricultural products, even though the potential application of these products is potentially much wider.

- c) Other regulatory hurdles affecting the development include:
- i. The valuation method and capital requirements for index-based insurance do not capture the specific nature and risks of this product type.
  - ii. The current requirement to sell products through licenced brokers and agents may not be applicable to index-based insurance, which is mostly sold through farmer's unions and seed companies to their respective members and customers;
  - iii. There are no restrictions on insurers selling index-based risk transfer products, which reduces the consumer protection on these products;
  - iv. There is no clear integration with the government's agricultural policies.
- d) The Microinsurance Policy Paper (2014) refers to aspects of index-based microinsurance. The proposal made in it should be taken into account in developing the Index-based Insurance Regulations and include:
- i. Not requiring index-based microinsurance contracts to have a grace period for the payment of premiums; and
  - ii. Not requiring group index-based microinsurance contracts to give policyholders the option to cancel their cover at any time.
- e) The proposed Insurance Bill provides a legal basis for index-based insurance and includes a broad definition. The Insurance Bill, when enacted, will provide for the issuance of Index-based Insurance Regulations. The provisions of the Bill must, therefore, be taken into account in developing the regulations. The following provisions of the Bill are particularly relevant:
3. (1) In this Act—
- “index-based insurance contract” means an insurance contract—
- (a) under which the liability of the insurer to make a payment to the policyholder is triggered by, and the amount of that payment is determined in accordance with, one or more indexes, rather than on an assessment of the policyholder's actual loss; and

(b) where the payment is designed to provide a level of compensation, although not necessarily an indemnity, to the policyholder in respect of either or both of the following—

(i) losses, including consequential losses, that the policyholder is expected to suffer, or

(ii) costs, including mitigation costs, that the policyholder is expected to incur,

in the event that payment is triggered by the index;<sup>10</sup>

4. (1) For the purposes of this Act, “insurance contract” means—

(a) a contract under which one party, the insurer, in exchange for a premium, agrees with another party, the policyholder, to make a payment, or provide a benefit, to the policyholder or another person on the occurrence of a specified uncertain event which, if it occurs, will be adverse to the interests of the policyholder, or

(b) an investment-linked contract, and includes a reinsurance contract and an index-based insurance contract.

(2) An uncertain event is an event, with respect to which, there is uncertainty as to whether or when the event will take place.

(3) Without limiting subsection (1), an insurance contract includes a contract that falls within a class of insurance business specified in the Regulations.

(4) The Regulations may specify types or descriptions of contracts that are considered not to be insurance contracts for the purposes of this Act.<sup>11</sup>

170. (3) Without limiting subsections (1) and (2), the Regulations may specify or provide for

—(r) index-based insurance contracts;<sup>12</sup>

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<sup>10</sup> (Kenya IRA, 2013, p. 14)

<sup>11</sup> (Kenya IRA, 2013, p. 18)

<sup>12</sup> (Kenya IRA, 2013, p. 111).

## **4.0 OBJECTIVES OF THE POLICY FRAMEWORK**

The policy framework discussed in this paper aims to achieve the following objectives:

### **4.1 Broad objective**

The primary objective is to assist in establishing a regulatory framework for index-based insurance that will enable the protection of policyholders and the appropriate supervision of industry participants by the Authority.

### **4.2 Specific objectives**

- i. Reduce the legal and regulatory risk surrounding index based insurance product, by creating a clear distinction between index based insurance and other types of index based risk transfer products, such as derivatives.
- ii. Increase the speed and reduce the costs for insurers to develop, get approval and sell index-based insurance, by helping set out clear requirements for a product to be approved as an index-based insurance product.
- iii. Ensure sufficient and accurate prudential provisioning and reporting of the risks taken on by the insurers, thereby reducing the risk of the insurers not being able to meet their contractual obligations to the policyholders.
- iv. Protect the interests of customers by setting principles based rules for index based insurance contracts, covering issues such as the provision of client value, how to reduce basis risk, requiring transparency with respect to the product offering and by requiring insurers and intermediaries to treat their customers fairly.

### **4.3 Scope of the framework**

This policy framework covers the provision of index-based insurance necessary to reduce the risks for the insurers entering the market and for the policyholders who want to purchase the product. The policy framework does not set out any Regulations. However, it does give recommendations on the features of an index-based insurance product that the Insurance Act and Regulations should enable in order to achieve the objectives set out above.

## **5.0 POLICY FRAMEWORK**

The following section gives the policy framework that the Authority should use to determine the Regulations for index-based insurance. In addition, the Authority should use the framework when issuing guidance notes and circulars on index-based insurance.

The regulatory framework recommended in this section should be consistent with the legal framework prescribed in the Insurance Act, as described in section 3.3. This is necessary to ensure that the resulting products will be recognised by the law as valid index-based insurance contracts.

Indexes should be permitted to cover any type of risks, not just agricultural risks, as long as the index meets the minimum necessary requirements.

This policy framework consists of four sections, which will cover the following:

- Section 5.1 considers some key regulatory considerations.
- Section 5.2 specifies guidelines that the Authority should develop for approving an index-based insurance product.
- Section 5.3 outlines the valuation, reporting and sales requirements that should be placed on companies that underwrite these products.
- Section 5.4 discusses requirements that should be put in place to improve consumer protection of the users of index-based insurance.

### **5.1 Key regulatory considerations for index-based insurance products**

The legal definition of an index-based insurance product is specified in the proposed new Insurance Act, as set out in section 3.3.

If an index-based risk transfer product does not meet these requirements, it cannot be classified as an insurance product. The appropriate classification of non-insurance products is not a matter for the insurance framework but, in order to protect policyholders from being sold inappropriate products, insurers should be prohibited from selling non-insurance index-based risk transfer products, even if it not marketed as insurance.

### **5.1.1 Nature of the product**

Index-based insurance is not explicitly dealt with in the Insurance Core Principles. Therefore, in order to be seen as an index-based insurance contract the product must conform to the requirements of generally accepted insurance practices.

Index-based insurance products should not be limited to agricultural products, but to any product that meets the contract and index requirements set out in this policy paper.

### **5.1.2 Fixed sum insurance**

As discussed previously, index based insurance pays out on the occurrence of the insured risk e.g., the risk of low rainfall and not on the occurrence of individual losses by the policyholder. Therefore it cannot be seen as indemnity insurance, and should be considered as a form of “fixed sum” or “agreed value” insurance. This will need to be reflected in the regulatory framework by requiring that insurance benefits are provided on this basis.

The pay-out can be a proportion of the maximum sum assured, depending on the index measure and the design of the policy. The benefit pay-out can also be staggered, reflecting different index measurements during the cover period of the policy.

The maximum sum assured or total pay-out allowed in the contract should not be specified in the regulations. This is necessary because:

- i. The damage or losses intended to be covered would be very difficult to assess;
- ii. It allows for the contract to include cover for any mitigation costs and consequential losses from the risk occurring; and
- iii. Maximum sums insured may be an obstacle to meso and macro level insurance.

Therefore, index-based insurance should:

- iv. Not promise to indemnify the policyholder of the losses he/she incurred due to the insured risk occurring within the contract period. This is necessary to help ensure that reasonable policyholder expectations are created around the expected pay-out from the insurance product.

- v. Have a maximum sum assured that reflects the risks and the needs of the policyholder, taking into account the policyholder's insurable interest. The risks faced include both the direct losses and indirect consequential losses or for recovering any mitigation costs.

The maximum size of the total pay-out should be specified in the contract and the insurer must be able to justify why the total cover provided is not excessive given the risks faced by the policyholder.<sup>13</sup>

### **5.1.3 Insurable interest**

In order for the contract to be seen as an insurance contract and be enforceable by the policyholder, the policyholder should be able to prove that he or she has an insurable interest in the risk occurring. Insurable interest in the context of index-based insurance should allow for wider economic interests.

Therefore, for the purposes of index-based insurance, a policyholder should only have to demonstrate that the occurrence of the risk would be adverse to the policyholder's interest. A few examples of policyholders with insurable interest include:

- Institutions that provide loans, if the occurrence of the risk reduces their customers' ability to repay the loan;
- Service or production input providers, if the occurrence of the risk reduces their customers' demand for their services or inputs;
- Labourers, if the occurrence of the risk reduces their employer's ability to pay their salary or require their services; and
- Producers, if the occurrence of the risk restricts the availability of their production input, increases the cost of purchasing the input or reduces the price at which they can sell their out.

### **5.1.4 Microinsurance regulations**

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<sup>13</sup> (GlobalAgRisk - Carpenter, Richard, 2012, pp. 30-32)

The regulations set out in this framework cover both the conventional and microinsurance application of index-based insurance products. However, the current index-based insurance products in Kenya target the low-income populations. Therefore, when designing index-based insurance products for the low-income population, the requirements set out in the microinsurance policy paper and regulations should also be considered.

- i. The criteria used to define a microinsurance contract as proposed in the microinsurance policy paper, should be used when defining an Index-based microinsurance contract.

Specifically, the need for sum assured size caps that apply to microinsurance products should be considered for index-based microinsurance. The caps should always be expressed in terms of a monetary value. For example, in the case of livestock insurance, the cap should be specified in the Kenya Shillings value of the livestock and not in the number of animals covered.

- ii. If the index-based insurance qualifies as microinsurance, the Microinsurance Regulations should apply to the index-based microinsurance contract, except to the extent otherwise provided by the Index-based Insurance Regulations.

Therefore, the index-based insurance regulations should get preference to the microinsurance regulations in the case of an index-based microinsurance contract.

## **5.2 Index-based insurance approval guidelines**

In setting the product approval guidelines for index-based insurance products, the Authority should take into account the following considerations:

### **5.2.1 Product Application Report**

The insurer should only be allowed to sell an index-based insurance contract after submitting a product approval application to and receiving permission from the Authority.

The application should specify how the proposed product design meets the requirements of the guidelines set out below. If the insurer fails to meet the requirements of these guidelines to a sufficient level to satisfy the Authority, then the Authority should not approve the index-based insurance product for sale.

The application should include an actuarial report that specifies how the insurer, through product design and the indices used, has aimed to minimize the basis risk expected from the product, given the purpose of the policy and the risks it aims to cover.

The application should include details on the sales process and the key service providers. Copies of the service level agreements with the key service providers must be provided.

The application should also include a copy of the marketing material and key features statement that will accompany the insurance product.

Any significant changes to the product design relating to these criteria should be reported to the Authority. The insurer must receive approval of the changes before they can be implemented in the market. The Authority may update these criteria through the updating of the relevant insurance Regulations and guidance notes.

### **5.2.2 Premium basis**

Insurers providing index-based insurance products should be able to underwrite policies in the manner they consider most appropriate. There should be no prescribed or minimum premium basis or limits on what is seen as an “acceptable return” on the index-based insurance policy.

### **5.2.3 Changing the premium, cancellation and non-renewal**

Should the insurer no longer find the level of risk acceptable, it may decline to renew the policies or increase the premiums. However, it should be prohibited from cancelling an existing policy or requiring additional premiums to be paid for a policy to stay in force.

Insurers should be required to submit premium rates to the Authority on a file-and-use-basis, with a justification for any significant changes. Subject to this, an insurer should be able to revise the premium rates at any point during the year for new policies sold or for policies being renewed during the year.

The new premium rates should be required to be submitted to the Authority one month prior to the rates taking effect. The company should not have to wait for regulatory approval but should be able to start using the new premium unless the Authority objects.

#### **5.2.4 Eligibility criteria**

The insurer should clearly state the criteria qualifying a person as able to purchase the contract. These criteria should reflect the principles for determining if a person has an insurance interest, as specified in section 5.1.3.

#### **5.2.5 Waiting periods and sales, premium and cover windows**

The insurer should not be required to have any waiting periods on the product. The sales, premium payment and cover windows should be clearly specified. The requirements of these windows will be discussed later in section 5.4.1.

#### **5.2.6 Exclusions**

The insurer should be free to include such exclusions as it considers necessary in the contract.

#### **5.2.7 Grace period and the right to cancel a policy**

The requirement of a grace period may not be applicable to index-based insurance products. Neither the insurer nor the policyholder should have the right to cancel the policy once it is in-force. This is to avoid adverse selection by the policyholder or discrimination by the insurer. (See section 3.3.d.(i))

#### **5.2.8 Specify the data source and back-up source**

The insurer should clearly specify the source of the data used to determine the index values and if the source of the data is the insurer's own measurements or from an independent source. It should also specify the back-up source of the data, in case the primary data source fails or is found to contain errors. If there is no back-up source available, the insurer should specify the method it will use to approximate the lost or incorrect data.

If the Authority determines that the data or the calculation of the index value is not independent or reliable enough, then it may require the insurer to appoint an independent body or person who will be available to verify the accuracy of data or index. The insurer should then use this verified data to determine the claims due to the policyholders.

The insurer should submit the service level agreement between the insurer and the independent person or body to the Authority for approval before the insurer can start selling the policy.

### **5.2.9 Contract requirements**

In order to ensure that the contract minimizes the basis risk associated with index-based insurance and ensure that policyholder value is maximised, the indices used to determine the pay-out should have the following attributes:

- i. *Easily observable and measurable.* The insurer should specify how the data used to calculate the index will be observed and how the index values and resulting benefits will be determined.
- ii. *Transparent, objective and independently verifiable.* Any interested third party or the policyholder should be allowed to request the measured data and calculate the index and pay-out level themselves. The method of calculating the index value from the data and the resulting benefit payment should require no subjective interpretation.
- iii. *A good predictor of the risk covered.* Whether the index can be used for a product should not be determined by the level of correlation between the index value and the individual losses, but by whether it is a good predictor of the insured risk. Therefore, the index should not trigger a payment unless the insured risk occurs.

Where there is uncertainty, it may be advisable to include a separate trigger for the insured event, leaving the role of the primary index to

determine the size of the payment due under the contract. However, this should not be a regulatory requirement.

- iv. *Predictive variable.* The regulations should also allow the index to be based on a predictive variable. This will allow for the benefit to be paid out prior to the risk occurring, allowing the policyholder to use the benefit payment to finance the mitigation costs incurred for the risk.

#### **5.2.10 Claims notification and payment process**

As the index will be more accessible to the insurer than the policyholder, payment should be made without the necessity for a policyholder to lodge a claim.

Once the data necessary to calculate the index and benefits due is available, the insurer should provide the policyholder with a formal notice of whether or not the policyholder is entitled to a payment and, if so, the details of the payment to be made.

Insurers should be required to put in place a process by which they will automatically pay the benefit from a valid claim. Therefore, as part of the application process the method and place of paying the policyholder should be captured.

The product application report must specify the claim processing and payment speeds the product will aim to meet and justify the reason for this.

#### **5.2.11 Dispute resolution mechanism**

The insurer should specify the appropriate dispute resolution mechanism that it will follow in the case of any disputes between parties involved in the provision of data, calculation of the index or payment of claims. This should also cover how complaints by policyholders will be resolved.

This mechanism must be approved by the Authority prior to the launch of the product.

## **5.3 Valuation, reporting and sales requirements**

### **5.3.1 Product category and commission caps**

Currently, index-based insurance falls under the “Miscellaneous” class of General Insurance business. (See section 3.3(b)). However, because of the unique nature of this type of insurance, the Insurance Regulations should specify “index-based insurance” as a separate class of insurance business, under both the General and Long Term categories of business.

Insurers should first apply for permission and receive approval from the Authority to sell index-based insurance before being allowed to do so.

Where index-based insurance is also microinsurance, insurers should be required to report their index-based microinsurance business separately.

In addition, the commission level cap that applies to index-based insurance should be set to reflect a realistic estimate of the costs involved in the distribution of index-based insurance.

### **5.3.2 Bundled products**

Because of the complicated nature of the product, and because an indemnity is not provided, insurers should be allowed to bundle index-based insurance products with other insurance and non-insurance products. However, the sales requirements that apply to the stand-alone index-based products should still apply when the product is bundled with other insurance products.

### **5.3.3 Sales process**

The insurer should be required to take care to prevent the policy being sold to a person who does not meet the eligibility criteria for the product. When using the aggregators, group policies or portfolio cover, the insurer should consider the following:

#### **5.3.3.1 Aggregator**

Insurers should be able to make use of aggregators to distribute the insurance to individual policyholders. Aggregators should be able to assist in the collection of the premium and the pay-out of the claims. However, as the contract is ultimately made between the insurer and the individual policyholder, the premiums to be collected from and claims to be paid to the policyholder must be as specified in the insurance contract.

In order to act as an aggregator, an organisation does not need to have an intermediary license. However, the insurer should first submit the service level agreement between the aggregator and the insurer to the Authority before the insurer can start selling the policy through the aggregator.

Permission to continue using the third party service provider or aggregator will depend whether the requirements of the agreement has been met to a satisfactory standard.

#### 5.3.3.2 Group Cover and Master policyholder

Insurers providing index-based insurance products should be able to underwrite policies on an individual or group basis.

The individuals within the group, or the group itself, should not be given the option to cancel their cover at any time. (see section 3.3 (d)(ii)).

In the case where the master policyholder in a group cover has the right to determine the pay-out made to the individual policyholders, the method or formula used by the master policyholder to calculate the pay-outs must be agreed on between the insurer and the master policyholder and clearly documented by the insurer.

#### 5.3.3.3 Portfolio cover

Insurers should be allowed to sell index-based insurance to organisations that use the policy to protect themselves against losses from the risk event, as measured by the index, adversely impacting their clients or their business interests.

Therefore, even though their clients are not the policyholders and only indirectly benefit from any pay-outs, these organisations should be allowed to purchase the product.

#### **5.3.4 Ongoing product monitoring**

Due to the indirect nature of the pay-out from index-based insurance, the underwriter of these products must provide the Authority with more detailed on-going product information. This is necessary in order to allow the Authority to verify whether the product provides sufficient value for money to the policyholder and that the claims are paid in line with the results of the index measurements.

Therefore, it is recommended that the following information be provided to the Authority on an annual basis:

i. *Key performance indicators*

Insurers should separately collect and store the information on their index-based products. The Authority will issue guidelines on what key performance indicators the insurers should report on an annual basis.

ii. *Index and claims data*

The insurer should report the value of their index and their pay-out on each of their products, to verify that the actual payments match their contractual requirements.

The Authority may also request the insurer to report the assessed actual losses incurred by the policyholders, in order to determine whether the design and index are sufficiently addressing the basis risk of the product.

### **5.3.5 Valuation methods**

The normal rules for calculating technical liabilities, as they relate to general insurers, will almost certainly not be wholly appropriate for index-based insurance products. Therefore, the Authority should impose special conditions on insurers to ensure that policyholders are adequately protected and that there is no contagion between index-based insurance and other lines written by the insurer.

The four areas where the specific conditions should apply are:

i. *Unearned Premium reserves:*

In the case of traditional insurance products, premium is released from unearned premium to earned premium in tranches over the duration of the policy as the risk expires. With index-based insurance policies, the risk does not expire on a proportionate basis over the duration of the policy. Therefore, the prescribed method of calculating the unearned premium reserves for index-based insurance should reflect one of two possible methods.

The method can assume that the risk from the policy remains until the end of the insured period (when the index value is measured and the claim determined). Therefore, all premiums received should be regarded as unearned until it is known whether payment is due under any policies.

Alternatively, the method can assume that the risk from the policy expires proportionally over the cover window of the policy. Therefore, the proportion of the premiums received regarded as unearned should be the proportion of the cover window that is still outstanding. This method is especially appropriate if the index can trigger multiple pay-outs over the cover period depending on its measured values.

If payments are due, the appropriate amount of premium should be treated as a known claims provision, pending payment.

ii. *Outstanding claim incurred reserves*

For similar reasons for adjusting to the method of calculating the unearned premium reserves, the method of calculating outstanding claims incurred reserves should also adjusted for index-based insurance.

In this case, the same methods prescribed by the Authority can be used as for general insurers. However, the appointed actuary in charge of calculating the reserves should adjust the application of these methods to reflect the unique nature of index-based insurance and comment on how the reserve was calculated in valuation report.

iii. *Capital requirements*

Due to the covariate nature of the index-based insurance risk, the insurer is likely to experience a number of good years and less frequent bad years. If the underwriting gains in the good years are treated as profit, there is a possibility that if the claims are sufficiently large, they will have an adverse effect on the insurer's solvency.

In order to protect the insurer against these covariate risks, sufficient capital should be held by insurers who sell index-based insurance. The Authority should therefore require specific capital requirements for insurers who sell this class of business.<sup>14</sup>

iv. *Reinsurance requirements*

Index-based insurance products expose insurers to catastrophic risk. Therefore, in addition to the provisioning and capital requirements,

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<sup>14</sup> (World Bank, 2011)

adequate reinsurance coverage should be obtained (where the premium income is sufficient to justify it).

## **5.4 Consumer protection**

### **5.4.1 Market conduct**

The insurer should conduct their business in such a way as to not unfairly advantage themselves at the expense of the policyholder. Therefore:

- i. The sales, premium collection and cover windows for the product should be specified in the policy documentation and the insurer should not be allowed to shorten or lengthen it, either directly or via removal of sales support to its agents.
- ii. Policyholder should not face unreasonable barriers at the expiry of the policy to change product, switch provider, submit a claim or make a complaint.

### **5.4.2 Key features statement and marketing material**

In order to ensure that consumers understand the product and the risks they cover, the insurer should provide its policyholders with a key features statement that will explain the following features of the index-based insurance policy sold to them:

- i. State the risks against which the insurance is being provided.
- ii. Explain to the policyholder what basis risk is, what the possible sources of basis risk are for the particular product, given the product design and the location of and risks faced by the policyholder.
- iii. Inform the policyholder of the limited role of index-based insurance in protecting against the risk faced (the basis risk) and that the impact of other risks not covered by the index are not covered by the product.
- iv. Explain that the policy covers the policyholder for an amount that depends on the measurement of the index. The material may not promise in any way to indemnify the policyholder of the losses he/she incurred due to the insured risk occurring.
- v. Specify which index that will be used to determine the pay-out to the policyholder. The policy should also indicate the likely frequency at which the index would trigger a pay-out and highlight the catastrophic or else working cover nature of the product.

- vi. Specify the eligibility criteria of the policy, including what criteria will be used to determine whether the policyholder has an insurable interest at the time the contract is entered into, and the possible consequences if the policyholder does not meet the eligibility criteria.

The marketing material provided to potential policyholders should provide clear information and keep the policyholder appropriately informed before, during and after the point of sale.

#### **5.4.3 Claim processing and payment speed**

In order to improve the trust and effectiveness of index-based insurance, all payments for index-based insurance policies must be verified, communicated to the policyholder and paid within 30 calendar days after the claim date implied by the index and contract, or the end of the contract period, whichever is earlier.

However, for some product designs, the claim processing and payment speeds will have to be shorter. This is especially the case for index-based insurance products that covers mitigation costs and/or uses an index based on a predictive variable. It is also the case of index-based microinsurance business.

In these cases, the insurer should specify a faster claim processing and payment speed when designing the product. The Authority should take the purpose of the product into account when reviewing the specified speed as part of the product application. It should also monitor the actual processing and payment speeds against this faster requirement.

#### **5.4.4 Independent data validation**

If the insurer has to appoint an independent body or person to verify the data used for calculating the index value, the insurer should have a service level agreement with this independent body. The service level agreement should specify:

- i. The responsibilities of the independent body;
- ii. How conflicts over the verified data, calculated index values and the benefits to be paid will be resolved;
- iii. The requirement of the independent body to report to the Authority if it suspects that the insurer has not correctly notified and paid the policyholders where a benefit is due;

- iv. What penalties the independent body will be liable for if they calculate the data and index value incorrectly or if they fail to perform their responsibilities as required by the service level agreement.

The final responsibility for the accuracy of the data and claims should remain with the insurer.

#### **5.4.5 Market conduct supervision and complaint resolution**

In order to ensure that the insurer has calculated the index value correctly and made all the contractual payments, the Authority should implement specific market conduct supervision requirements for index-based insurance products. The Authority should also issue guidelines on how the insurers should structure the dispute resolution mechanisms described in section 5.2.11.

The Regulations should require specific penalties for insurers who breach the requirement to initiate and make the necessary claim payments.

The Authority should have the power to appoint an independent expert to review any complaints lodged by policyholders on their index-based insurance policies. The independent expert should be given full access to the index data and the method of calculating the index value.

#### **5.4.6 Capacity building and consumer education**

There is currently a lack of capacity in the Kenyan insurance industry to design, underwrite and correctly sell index-based insurance. Therefore, the Authority should develop this capacity by supporting the training of experts in the field.

There is also a lack of knowledge, understanding and trust in the product by the Kenyan public. Therefore, the Authority should support the development of consumer education material and assist in educating the public on how the product works and when it should be used.

## **6.0 CONCLUSION**

Index-based insurance can be a very efficient and effective way of addressing risks that otherwise involve too many expenses for the insurer to sell profitable and for providing cover for risks that are otherwise very hard to measure.

Index-based insurance that is classified as a fixed-sum insurance product and defines insurable interest as the occurrence of the risk having an adverse impact on the policyholder's interest is the best way to ensure the product meets the needs of the policyholders while not creating unreasonable expectations.

In order to support the development of these types of index-based insurance products, specific regulations are needed to reflect the unique nature of the risks these products cover. Therefore, this document makes specific recommendation concerning the product approval process, the reporting and capital calculation methods and the consumer protection requirements.

However, the implementation of these recommendations will not, on its own, ensure the sustainable development of the market for these types of products. It is necessary that the insurers follow both the letter and spirit of these recommendations. Therefore, insurers should make realistic promises concerning the risks that their index-based insurance products cover, design products that address the underlying needs of the policyholders and ensure that the pay-out process is fast and accurate.

By incorporating these recommendations in the regulatory framework, it is believed that the objectives of the policy paper will be achieved and that a regulatory environment will be created that will address the problems identified in the industry and facilitate the growth of index-based insurance.

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