

A practical overview of index (re)insurance for public and private sector to reduce the cost of climate and disaster events on agricultural production in Africa

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Main Messages

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Leveraging data & technology for scaled-up Financial Resilience of Agriculture

- Climate change exacerbates weather variability and further exposes crops and livelihoods to highly disruptive shocks
- Agricultural value chain is exposed through various economic agents and transmission channels, affecting farmers, businesses and governments differently
- Data availability/adequacy not a show stopper anymore
- New (remote-sensing) technology a game-changer, providing cost-efficient and reliable pricing and pay-out mechanisms
- Parametric solutions offer wider benefits, including risk modelling,
 distribution/replicability, risk monitoring, EWS and anticipatory action
- Role of parametric risk transfer and PPP essential in unlocking access to financial protection and strengthening resilience at-scale



Example of crop yield insurance, structured, priced and triggered by satellite-based soil moisture data



Comprehensive and fully-integrated

Climate Resilience **Global Practice**

Public Sector &

Our Global Service offering

Climate & Systemic Risk Analytics

Supported by Climate & ESG, CAT Analytics, Agriculture & ILS teams: Exposure, Hazard, Macro-Economic & Fiscal, Multi-Peril/Compounding Shocks, Climate Change, Global & Interconnected Risks

Risk Transfer & **Financing Products**

Parametric Risk Transfer, Contingent Financing, **Emergency Response**

Strategic & **Policy Advisory**

Holistic Risk Understanding, Instrument-Layering, Climate Risk Financing Strategy, Policy advice





Network of regional Champions

Brokers, Modelers, Actuaries

Corporate Clients

Insurance, Reinsurance, Banks & MFIs

Governments

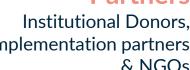
Advisory,
Capacity Development

Intermediation

Ministries of Finance, Regulators & Public **Authorities**

Development **Partners**

Implementation partners & NGOs





Comprehensive and fully-integrated Our Parametrics for Agriculture service offering



Regulatory & Legal

Implementation decrees, Compliance, Wording

Fundraising

Technical Assistance, Premium Financing

Distribution & Claims

Beneficiaries Registry, Claims Management Platform

Risk Transfer & Financing

Emergency Budget/Reserves Indemnity/Parametric Risk Transfer, Contingent Credit

Advanced Risk Modelling

Crop Mapping, Macro-Economic & Fiscal, Multi-Peril/Compounding Shocks, Climate Change, Drought/Flood focus

Policy & Strategic Advisory

Risk-Layering & Risk Financing Strategy, Policy advice, Resilience & Adaptation

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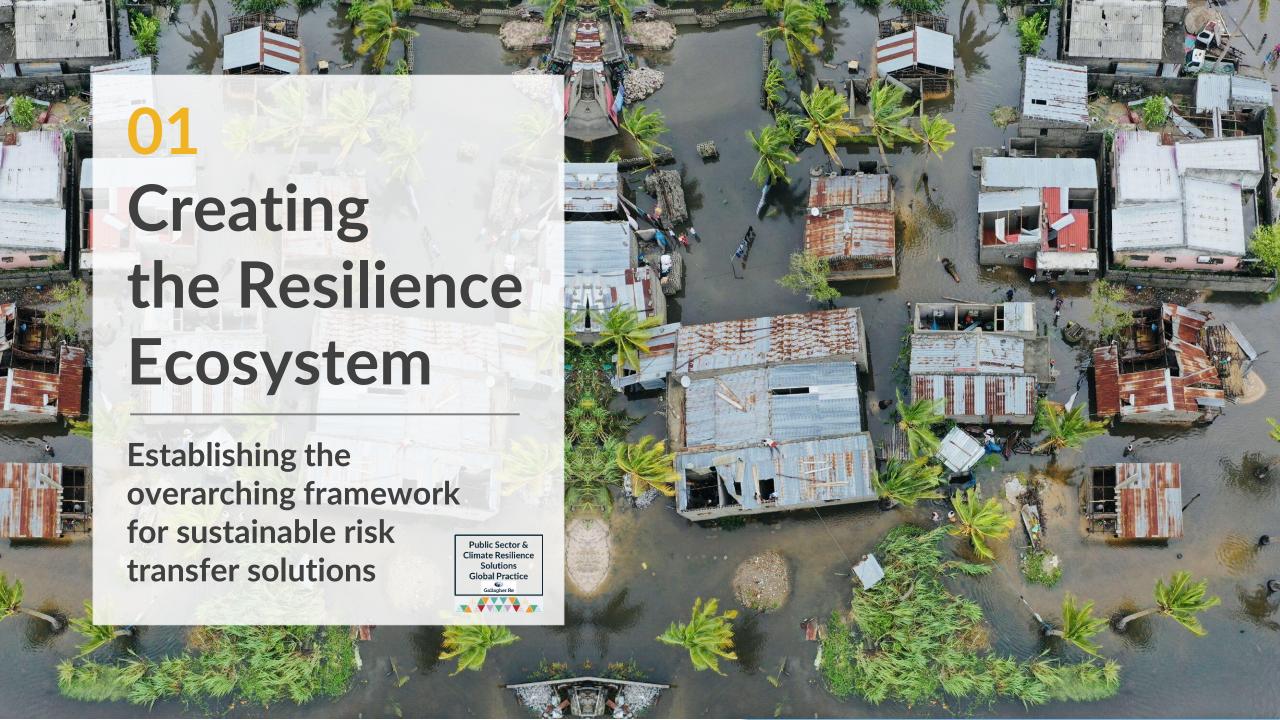
Intermediation

Development Partners

Institutional Donors,
Implementation partners
& NGOs



Parametric Risk Transfer Solutions for Agriculture
Strengthening financial resilience of agricultural sector against climate and disaster risks



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Accelerating Action through comprehensive, customized solutions supported by Public-Private schemes

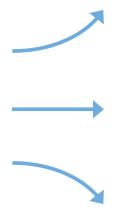


Practical Solutions Implementation Framework

addressing wide range of climate and systemic risks, through turnkey agricultural solutions

- Policy
 - Crop Mapping Risk Modelling
- Regulatory **Triggers**
- Structuring
- Actuarial
- Placement
- Budgetary
- Claims
- Risk Mitigation Monitoring





Creating the ecosystem

Facilitating governance, roles, agreements, mechanisms and communication across stakeholders. supporting decision-making every step of the way through state-of-the-art risk & financial analytics

Implementing practical solutions

Focusing on executing design, implementation & operationalization activities in accelerated timeframes (e.g., 18-24 months)

Promoting sustainable growth over time

Building on previous experience, aiming to reach scale and achieve regional momentum, as a long-term partner



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Accelerating Action through comprehensive, customized solutions supported by Public-Private schemes





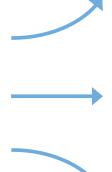
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- Risk Mitigation •

- Crop Mapping
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- Structuring
- Placement
- Claims
 - Monitoring





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Delivering cost-efficient and sustainable risk transfer platforms to protect governments' liability, economic growth and livelihoods

Paving the way to promoting further investments and addressing broader climate adaptation challenges









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Aligning interests across public and private sector through policy, incentives and expertise





Mobilizing Risk Finance, Capital & **Expertise at scale**

through public private partnerships & holistic risk financing strategies

Government's Reserves & Budget Reallocation

Donors & Development Partners' Funding

Contingent Line of Credit

Insurance, Reinsurance & Alternative Markets

Farmers & Individual Policyholders



Practical Solutions Implementation Framework

addressing wide range of climate and systemic risks. through turnkey solutions covering

- Policy
- Regulatory
- Legal
- Actuarial
- Budgetary
- **Fund Raising**

- **Crop Mapping**
- Risk Modelling
- Structuring
- Placement
- Claims
- Comms and M&E

Scalable Solutions fully customized to country needs



Emergency Response

Government's Contingent Liability

Agriculture & Crop Production

Livelihoods

Fiscal Revenue

Critical Public Infrastructure



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Resilience at-scale: example of select risk pools

Scheme	Purpose and coverage	Nature of scheme
African Risk Capacity (ARC)	Reduce fiscal impacts of disasters (drought, flood, tropical cyclones)	ARC is an extreme weather insurance scheme designed to help African Union member economies resist and recover from natural disasters. The scheme uses advanced satellite weather surveillance and software – developed by the WFP – to estimate and disburse immediate funds to African economies hit by severe drought, with other hazards to follow in the coming years. Economies that participate in ARC will benefit from an index-based insurance mechanism for infrequent, severe drought events. The ARC risk pool transfers extreme risk that it believes it would be inefficient to hold as reserves within the pool to international carriers via reinsurance.
Caribbean Catastrophe Risk Insurance Facility (CCRIF)	Reduce fiscal impacts of disasters (hurricanes, earthquakes, excess rainfall)	CCRIF is a country risk pooling facility owned and operated by participating Caribbean governments. In return for premiums, the pool provides a payout when a policy is triggered. Policies are based on parametric triggers (in this case, modelled government loss) and are designed to provide governments with the funds needed to manage the immediate aftermath of a disaster. Coverage limits are determined by governments, but no country can purchase coverage in excess of USD100 million per hazard. Payments are made on a sliding scale relative to scale of the loss. The pool's capacity is augmented by the purchase of reinsurance and a catastrophe swap with the World Bank. The World Bank provides oversight of the CCRIF and manages a trust fund, used to support the CCRIF, on behalf of foreign donors.
Southeast Asia Disaster Risk Insurance Facility (SEADRIF)	Finance emergency needs for populations affected by floods and tropical cyclones in Cambodia, Lao PDR, Myanmar	SEADRIF is a regional platform that provides participating nations with advisory and financial services to increase preparedness, resilience and cooperation in response to climate and disaster risks. As a regional platform under the political umbrella of ASEAN+3, it supports multiple purposes:: - serve as a forum for sharing knowledge and good practices promote shared investments in public goods to support the understanding of risk sustain political momentum – driving engagement and progress on disaster and climate shock management.
Pacific Catastrophe Risk Insurance Company (PCRIC)	Reduce fiscal impacts of disasters (Earthquake (and following Perils) + Cyclone)	PCRIC aims to provide disaster risk finance products including catastrophe risk insurance against natural and climate disasters to Pacific Island Countries, with an aim of providing liquidity to enable governments to deliver relief efforts as quickly as possible after a disaster.

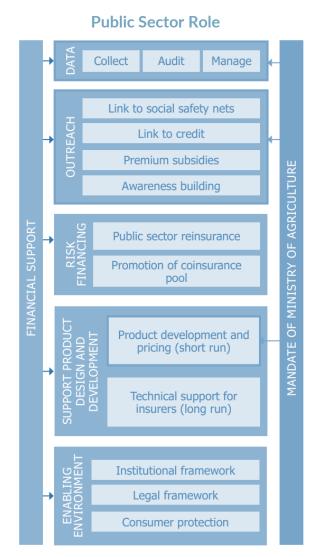


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Or how to bring resilience to scale

- Experience shows that agricultural insurance programs based on Public-Private Partnerships provide mutually-enhancing benefits to both public and private contributions.
- PPPs are particularly appropriate in smallholder farming economies where governments can support private sector insurers in developing programs to cost-effectively reach very large numbers of small-scale farmers.
- Under PPP arrangements, the most common form of government support is in the form of premium subsidies, followed by support for reinsurance and insurance legislation.

The set of possible arrangements for an agricultural insurance PPP is broad and optimal set-ups require highly customized solutions.



Private Sector Role



Typical roles for public and private entities in agriculture insurance schemes



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Example of implementation sequence

risk understanding & conceptual design



technical design & financing

implementing & _____ monitoring

#1 Comprehensive **Stock-Taking of Risks & Exposures**

Identifying perils, values at risk, vulnerable assets, available financing & governance

Exposure Data Collection & Mapping

Historical loss information

Holistic Climate & Systemic Risk Analytics

Assessment of economic and fiscal impact of natural disasters

Review of Governance & Legal framework

Review of Financial Instruments in place

Review of domestic (re)insurance market capacity and maturity

Financial Gap Analysis

Deep-dive into specific risk areas

Benchmark with regional risk and resilience profile

#2 Risk Financing **Strategy Design**

Laying out vision, objectives, instruments and governance

Narrowing-down the scope: prioritizing assets, sectors, populations, perils to be protected

Defining risk appetite, funding needs, short vs long-term objectives, critical beneficiaries

Identifying new risk financing instruments

Highlighting role of insurance

Integrating risk mitigation investments

Identifying disbursement mechanisms

Addressing financial inclusion

Articulating governance structure

Stakeholder consultation

Initiating exchange with institutional donors, development, regional partners

Initiating political and legal actions to allow for anticipated scheme implementation

#3 Scheme Design

Structuring public and private risk financing mechanisms in a fully integrated & complementary set-up

Developing a layered risk financing structure matching the frequency and severity of expected disaster events along with associated funding needs

Addressing legal and regulatory aspects

Formalizing governance, roles and responsibilities across various partners

Optimizing the use of each source of funding individually as well as in a mutually-enhancing integrated structure

Designing disbursement mechanism & claims management platform

Integrating early warning systems and risk mitigation capabilities

Anticipating other implementation requirements (e.g., insurance modelling, beneficiary registry)

Capacity transfer and training

#4 Funds Mobilization

Securing public and private finance supporting strategic vision

Securing and consolidating government's funds for emergency and reconstruction through dedicated channels

Complying with and applying to premium (co)financing grants from institutional donors and development partners

Creating funding mechanisms within public finance (e.g., tax) or domestic insurance premiums

Defining communication strategy

#5 Scheme **Operationalization**

Implementing risk financing & insurance instruments in a costefficient & sustainable manner

Coordinating preparedness across key public and private stakeholders

Preparing and securing financial instruments

Implementing legal texts and decrees allowing for public mechanism effectiveness

Activating communication campaign

#6 Monitoring & **Evaluation**

Ensuring efficiency and transparency of scheme over time

Defining efficiency and performance metrics and measurement tools

Optimizing risk financing structure through data collection, exposure and risk understanding improvement, and accumulated history

Demonstrating transparency and efficiency of scheme to stakeholders and partners to maintain long-term sponsorship



Donors' support and Premium Financing





Engaging early on with donors and development partners to align with their development objectives and constraints





















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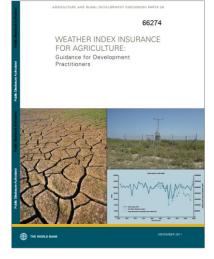
Defining communication strategy

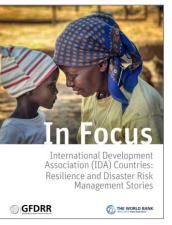


Example of governance structure and best practices

CATEGORY	POTENTIAL STAKEHOLDERS	ROLE	
Insurer	Insurance companies, insurance association	Underwrite risk, contract design, marketing	
Reinsurer	Reinsurance companies, hedge funds	Risk transfer capacity	
Agribusinesses and financial partners	Agricultural banks, rural service organiza- tions, nongovernmental organizations (NGOs), MFIs, input suppliers, agribusiness companies	Clients, agents for mar- keting and education, collecting policies and premiums	
Farmers	Farmer association, cooperatives	Clients	
Government departments	Meteorological service, insurance regulator, Ministry of Finance, Ministry of Agriculture, planning ministries, research and specialist institutes	Provide data, agronomic information, and research; assist in contract design; maintain weather infrastructure; regulate product	
Donors	Technical assistance, financing key investments	Research and develop- ment (R&D), weather infrastructure	







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Understanding Agriculture Resilience

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Beyond drought insurance: holistic approach to risk management

- International (and recent) experience highlights the need for a holistic approach to agricultural risk management, promoting the assessment of all risks and their relationships to each other, and avoiding focusing on a single product, financing mechanism or beneficiary
- Through analytics and advanced financial risk management, we need to understand, anticipate and manage most disruptive events and their compounding effects.
- Recent examples of extreme agricultural events include:

Production Risks

- ✓ 2014/2015 ENSO event diminished SADC crop stocks due to abnormally high rainfall and flooding, affecting more than 135,000 people in Malawi, Mozambique, Madagascar, and Zimbabwe
- ✓ Avian Flu (2003/2004): Caused the death or culling of 140 million birds and more than US\$10 billion losses to the poultry industry in Southeast Asia

Market Risks

- ✓ International coffee crisis (2000 2003): Resulted in uprooting and abandonment of coffee plantations in West and Eastern Africa
- ✓ Food price crisis (2008): prices soared, leading to realignment of global rice trade. The Thai export business lost its market position to Vietnam

Institutional Risks

✓ Kenyan Elections (2007): Violence surrounding the election reduced flower exports across the country by 25 – 40%



Transmission channels of shocks across sectors, sub-sectors businesses and populations



Understanding Risk & Vulnerability

A wide range of assets and livelihoods at risk







Major

Disaster/

Shock

actual

- **Production losses**
- Revenue losses
- **Unemployment & loss** of productivity

Tourism

- Revenue losses

Other Services & Industry

- Damage to physical assets and capital stock
- Impact on food and commodity prices
- Energy and raw materials production/costs
- Unemployment & revenue losses due to disruption

- Damage to infrastructure
- Unemployment

Macro-Financial Sector

Private Finance

- Firms' profitability, credit risk & financing costs
- Banking sector financial stability

Public Finance

- Fiscal revenue
- Sovereign debt

Indirect **Economic**

Impact GDP

- Investment
- Unemployment
- Household Consumption
- Ex/Import balance
- Remittances

spill-over & compounding effects



- Roads and public transport
- Electricity distribution facilities
- **Telecommunications**
- Water treatment facilities, irrigation channels and dams
- Schools and hospitals

Intangible Impact

- Livelihoods (e.g., Health, Education, Financial inclusion)
- Firms (e.g., Data, intellectual property, brand, reputation, relationships)
- Government's implicit responsibility





Understanding Risk & Vulnerability

Examples of select, past historical events in Africa





Agriculture

Morocco, 1994/95 Drought:

 Ag GDP -45%; National **GDP-8%**

South Africa, 1990 Drought:

• \$2.1bn damage

Other Services & Industry

Egypt, 2021 Suez Canal Blockage:

• \$100m in lost toll revenue; National GDP -0.03%

Oman, 2007 Cyclone Gonu:

• \$5.5bn in damage (7% of national GDP)

Egypt, 1992 Cairo Earthquake:

 \$2.3bn in damage (0.6% of national GDP)

Mozambique, Zimbabwe, and Malawi Idai Cyclone:

- 3m people affected \$2.2bn damage

Critical Public Infrastructure and Services

Algeria, 2003 Boumerdès Earthquake:

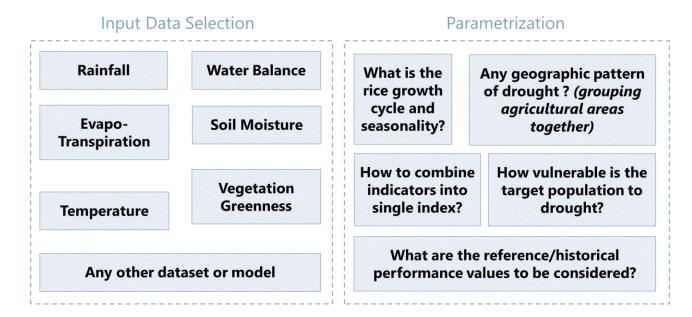
- \$7.4bn damage (5% of national GDP)
- Egypt, 1992 Cairo Earthquake:
- \$2.3bn damage (0.6% of national GDP)



Leveraging Technology & Remote-Sensing



For improved risk understanding and more impactful payouts



Apr 06, 2015

SMAP L3 Soll Moisture and SSS

Satellite-based soil moisture provides unique insight into drought risk through continuous, global coverage with the Copernicus constellation

Source: ESA/SMAP

From crop exposure mapping to post-disaster damage estimation, cross-cutting experiment minimization and near real-time monitoring for emergency response coordination, the use of parametric risk transfer requires advanced analytics whose applications go way beyond payout triggering.

The result is often a comprehensive analytical platform which provides access the most accurate and timely information available on the potential occurrence and impact of disasters in near real time, with more adequate pricing, and more timely claims settlement.





Parametric Risk Transfer

Key Parametric Concepts

- Event Based Parametric insurance responds to the characteristics of modelled or observed events ("triggers") that best approximate severity of droughts/floods, with metrics such as rainfall, soil moisture, vegetation index, flood depth/extent, etc.
- Targeted Coverage Policies are usually on a named-peril basis, with triggers defined for each risk of concern. Multi-peril policies are possible.
- **Data Driven** The foundation of every parametric product is an independent and reliable data source or model that is able to capture the event characteristics.
- No Vulnerability Pricing is based on the probability of the pre-defined event occurring and is detached from the vulnerability of the covered assets.

If **X event** (named peril/s) with **Y characteristics** (intensity) occurs, the policyholder will automatically receive **Z pay-out**, usually within days after the qualifying event.²

X event must be of fortuitous nature, **Y characteristics** must be derived from an independent and reliable data source, and **Z pay-out** should closely mirror the insured's anticipated loss experience.

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	Indemnity Insurance	Parametric Solutions
Trigger	Indemnity-based: Loss or damage to a physical asset	Event-based: Occurrence of an event that exceeds a parametric threshold
Recovery	Reimbursement of the actual loss suffered	Pre-arranged payment
Basis risk ¹	Arises from policy conditions, exclusions and claims disputes	Arises from the correlation of the data/index with the insured's risk
Claims process	Can be complex and involve multiple parties	Transparent and quick
Structure	Generally standardised products with some customisation available	Flexible, fully customisable products



¹ Refers to the difference between the insured's actual financial loss and the payout/settled claim/recovery received from the (re)insurer

² X-event, Y-characteristics, and Z-payout are all pre-agreed as part of the product methodology and terms & conditions defined in the policy wording

Parametric Risk Transfer

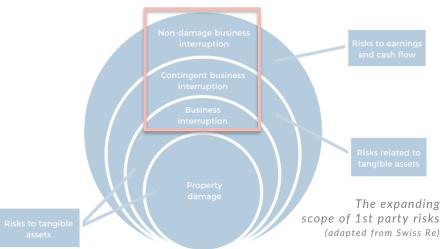
Addressing Key Pain Points

Current Challenges

- Climate change intensifying perils and losses
- Technical & financial capacity constraints in the domestic/regional market
- Pricing pressure on brokers and clients at renewals
- Slow and costly claims payment process
- Adverse selection and moral hazard
- Increasing coverage gaps
- Limited ability of traditional products to address new risks

Parametric insurance pushes the boundaries of traditional insurance by using data to underwrite difficult-to-insure losses.

Such structures should be seen as **complementary** to traditional (re)insurance, filling gaps in the coverage or addressing risks outside of the scope of indemnity insurance.



Benefits of Parametrics

- **Rapid:** Parametric insurance uses event parameters to issue payments quickly, providing the insured with liquidity in the immediate aftermath.
- **Transparent:** Basing the product on independent data combined with a targeted event definition and pre-agreed payouts provides transparency, strongly limiting the risk of protracted claims disputes
- **Flexible:** Parametric insurance can be adjusted to very specific events, geographies, assets, and provide the insured the flexibility to use funds as needed
- Highly Customizable: Parametric insurance enables clients/perils/assets that have limited historical data or insurance penetration to access (re)insurance capital



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The Claims Process



A crucial differentiating factor of parametric solutions is the transparent and quick claims process, resulting in payments within days/weeks after the event



Key Aspects of Parametric Claims

- Product monitoring conducted by the Calculation Agent. The process can be automated
- No claims submission required by the policyholder
- If trigger thresholds are met, then the policyholder receives rapid access to post-disaster liquidity

Settlement Methodology

- The insured and (re)insurers must agree on the role of the calculation agent. This can but doesn't have to be an independent third-party
- The calculation agent assumes the responsibility to monitor the product and the underlying dataset during the policy period.
- The insured, (re)insurers, and the calculation agent must pre-agree on the event definition, the underlying dataset, trigger thresholds, payout table, and policy limit.
- A binding settlement process is agreed on, outlining how the underlying data is sourced, stored, and processed.
- A fallback methodology is defined to account for any unexpected data gaps
- Upon the occurance of a relevant event, the calculation agent issues an event report to the insured and (re)insurers
- If the trigger threshold has been met, the calculation agent issues payment advice to the (re)insurers.
- If required, a simple confirmation of loss is requested from the insured



A versatile product structure



Parametric (re)insurance is not tied to a line of business or a specific peril. Instead, it's an alternative approach to quantifying and transferring risk. If a particular event afflicting the policyholder can be measured via an independent dataset, then a parametric mechanism could technically be devised.

PERILS



















Cyclone

Earthquake

Excess Rainfall

Drought

Wildfire

Flight Disruption

Cloud Outage

Footfall decrease

Epidemic

TRIGGERS



















(Cat x)

Wind Speed Mercalli Scale

Precipitation (mm)

Crop Yield (x% Loss)

Burn scar per acre

Duration of Delay (Minutes)

Duration of Delay (Minutes)

Drop in Industry Index + Revenue relevant metric

Epidemic Declaration + Drop in Industry Index

The underlying dataset and the triggers can be based on:

- 1. Remote sensing/satellite or met office data from organizations such as ESA/Copernicus, NOAA, JMA
- 2. Independent industry wide indices or reporting agencies
- 3. Event specific modelled losses calculated by an independent entity

Parametric Checklist

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What does it take?



Susceptibility – Is the risk of fortuitous nature and a key concern for the client? If a specific event were to materialize, what level of loss would the client incur?



Data Source – Can an independent and reliable data source or model for the event be identified? Is the data source able to measure the intensity of the event?



Data Modelling – Can an expected loss/risk premium be modelled? Either via a consistent historical time series (e.g. rainfall) or via available random scenario based models (e.g. EQ or flood).



Crops/Population mapping – What assets or loss scenarios need to be covered? Where are they located? Which components drive the anticipated losses?



Motivation – What challenge will the parametric structure help overcome? How will a possible payout be utilized by the client?

The complexity of structuring and placing a parametric products depends strongly on the targeted event and the underlying dataset – Generally, the harder to model the risk, the more difficult to place

A joint effort between insured, broker, and (re)insurer is required to determine the key components of the parametric structure







Overview of Parametric Solutions

For Agriculture Risk Management

Crop & Forestry Insurance Covers	Livestock & Poultry & Aquaculture Covers	
Indemnity-based	Indemnity-based	
Named-peril Crop Ins. (NPCI) - hail + allied perils	Named-peril Accident & Mortality	
Multi-peril Crop Ins. (MPCI) All natural, climatic and biological perils	All Risks Mortality including diseases	
Crop Revenue Insurance (CRI) - loss of yield & price	Epidemic disease/ Business Interruption	
Other specialist covers (e.g. Aggregate Production chortfall cover)	Bloodstock	
Index-based	Index-based	
Weather-Index Insurance (WII), based on Ground Weather Stations	Index-based livestock Mortality Insurance (IBLI)	
Weather-Index Insurance (WII), based on Remote Sensing/Satellite Satellite Indexes	Satellite Index Insurance (NDVI for loss of pasture/grazing). Also termed IBLI	
Crop Area Yield Index Insurance (AYII)		
Other (e.g. specialist Flood Index insurance)		
Other Crop	Other Livestock	
Greenhouse (crops + buildings)	Aquaculture Insurance (fin fish) (Named-Peril and All Risks)	
Forestry Insurance (Fire/wind, allied perils)	Aquaculture (shell fish) (Named-peril and All Risks)	
Plantation/ Tree Fruit Insurance ((Fire/wind, allied perils)	Bee Insurance	

	Area yield index	Weather index	Satellite imagery
Index value	Average yield of a given area	The (indirect) value of a weather parameter	Measure of the infra-red reflectance
Measurement tool	Loss adjuster: crop cuttings	Terrestrial weather station	Satellite platform
Period of calculation	N/A – Index Value known during the crop cutting	During the critical period	During critical period
Type of data	Official Yields statisites	Weather data	Reflectance per pixel
Trigger	A percentage of past average yield at the insurance unit	A percentage of the past index values or any critical value	A percentage of historical reflectance
Source of data	Government of official stat dpt	Weather stations	Satellite – private companies
Cost in building the index	+	++	++
Administrative cost	+	++	++
Delays in getting the data	Few months	Immediate (AWS) or not	Immediate to weeks



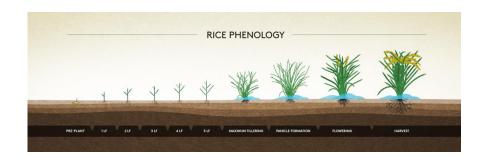


Highly Customizable Solutions

Example #1: Thresholds/Triggers for Rice Insurance product in SEA

Drought example for a 1ha coverage

US\$5
Farmers
Premium



Early window

Late window

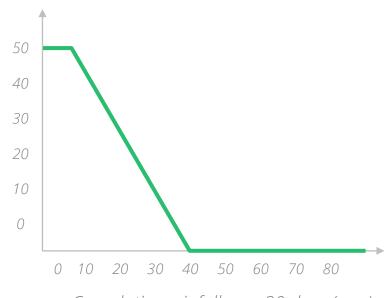
Cumulative 30-day Rainfall If <10mm -> US\$30 payout If <10mm
-> US\$50
payout

If <40 and >10mm -> US\$15 payout

If <40 and >10mm -> US\$25 payout

All payouts paid within a week of drought event





Cumulative rainfall over 30 days (mm)



Highly Customizable Solutions



Example #2: Meso-level parametric risk transfer for Banks & MFIs in SEA

Micro-level insurance program

Insurer

Policies, premiums, claims

Distributor

producer/farmer

Policies, premiums, claims

high transaction costs to reach remote rural Insured

Policyholder

= individual crop

Meso-level insurance program

Insurer

Policies, premiums, -> claims

More diversified risk portfolio, lower distribution costs, more targeted advocacy efforts

Risk Aggregator

Policyholders = Banks & MFIs

Assets = lending portfolio

Ability to offer loans to broader client base

Risk aggregators could eventually distribute bundled products to farmers (coverage could become compulsory for loanees (e.g., India) or made multi-year, and amount of insurance would match credit amount, typically input costs + any additional financing needs)



Micro-level policy (direct): Policyholders are individuals, for example, farmers, market vendors or fishermen, who hold policies and receive pay-outs directly. Policies are often sold at the local level and retailed through a variety of channels, including microfinance institutions, farmers' cooperatives, banks, non-governmental organizations (NGOs) and local insurance companies. Premiums are either paid in full by clients or subsidized (or both).



Meso-level policy (indirect): Policyholders are risk aggregators such as rural banks, MFIs, farmer associations, cooperatives, mutuals, credit unions or NGOs, whereby a (re)insurer makes payments to the risk aggregators, which then provide services to individuals.



Macro-level policy (indirect): Policyholders are governments or other national agencies. Pay-outs can be used to manage liquidity gaps, maintain governmental services, or finance post-disaster programs and relief efforts for predefined target groups. Beneficiaries of these programmes can be individuals. These schemes can be operationalized through regional risk pools (MCII 2016).

Micro vs Meso vs Macro-level insurance programme structures



populations

Contacts



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