



Learning workshop on Index Insurance best practices for regulators and practitioners in the insurance sector

24th October, 2022

Agenda

1. Introducing the context of the Report and Opening Remarks
2. Best practice considerations for regulators and practitioners
3. Workshop 1
4. Best practice considerations for other stakeholders
5. Workshop 2
6. Q&A
7. Concluding Remarks

Introducing the Pacific Insurance and Climate Adaptation Programme

by Mr. Krishnan Narasimhan, Global Lead Specialist (Insurance and Climate Adaptation) and Programme Manager, United Nations Capital Development Fund (UNCDF)

Development Challenge: Pacific = Vulnerability

- 10 countries in the Pacific are ranked in the top 30 across the globe with the highest average annual losses as % of GDP.
- 2016 Tropical Cyclone in Fiji affected over 900,000 residents and caused more than US\$ 1 billion in estimated damage and losses. TC Pam (2015) in Vanuatu caused damage, loss, and needs est. at US \$450 million (~64% of GDP).
- CAT 5 TC Yasa in December 2020 led to a total economic damages of US\$250 million, mostly in the Northern Division. CAT 2 TC Ana in February 2021 also had devastating wind damages in the Central division.

Rank	Country	Risk
1.	Vanuatu	47.73
2.	Solomon Islands	31.16
3.	Tonga	30.51
4.	Dominica	27.42
5.	Antigua and Barbuda	27.28
6.	Brunei Darussalam	22.77
7.	Guyana	21.83
8.	Philippines	21.39
9.	Papua New Guinea	20.90
10.	Guatemala	20.23
11.	Cape Verde	17.72
12.	Costa Rica	17.06
13.	Bangladesh	16.23
14.	Fiji	16.06
15.	Cambodia	15.80
...
161.	Germany	2.66

Development Challenge (cont.)

- PSIDS have **limited capacity** to effectively manage risks and overcome significant economic losses after a disaster.
- **Limited ex-ante financial instruments** (government reserve funds and contingent credit).
- The **ex-post financial instruments** deployed are usually reallocated from government budgets, external and internal borrowing or donor assistance and international humanitarian aid.

Pacific Insurance & Climate Adaptation Programme (PICAP)

Objective: Improving the financial preparedness of PSIDS towards climate change and natural hazards

An **CDRFI response** mechanism that improves local communities' resilience against extreme climate events.

Climate risk insurance to provide **immediate liquidity post-disaster**.

Market-based climate risk insurance and other disaster risk financing instruments targeted at:

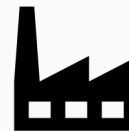
- Low-income households & communities
- MSMEs
- Co-ops & Agri-agency associations and unions
- Financial institutions



Agriculture



Fisheries



MSMEs



Tourism

Pacific Insurance and Climate Adaptation Programme (PICAP)



Fiji



Vanuatu



Tonga



Samoa



Kiribati



Solomon Islands



Papua New Guinea*

- Promote market-based climate risk insurance solutions in the Pacific SIDS
- Micro and Meso level index insurance products for low-income households, small-holder farmers, and MSMEs
- Market ecosystem approach
- Jointly implemented by UNCDF, UNDP, and UNU-EHS



Agriculture



Fisheries



Retail

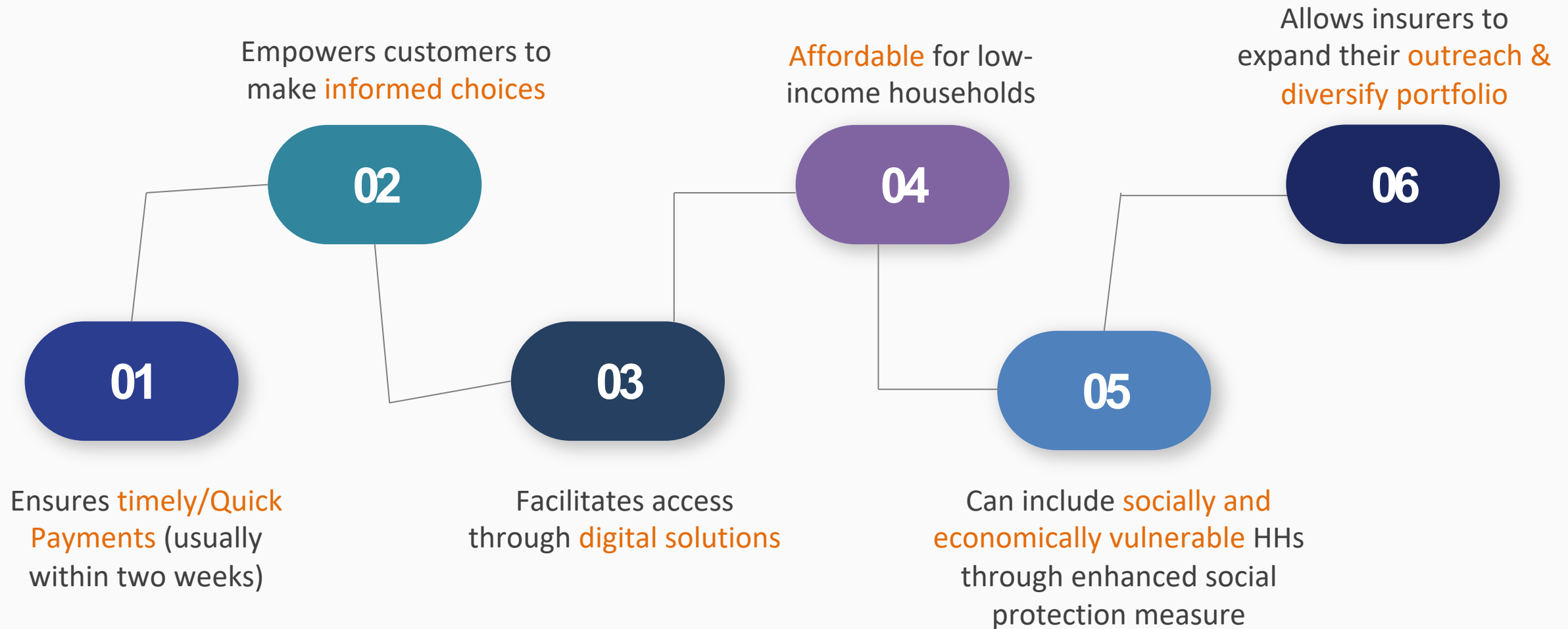


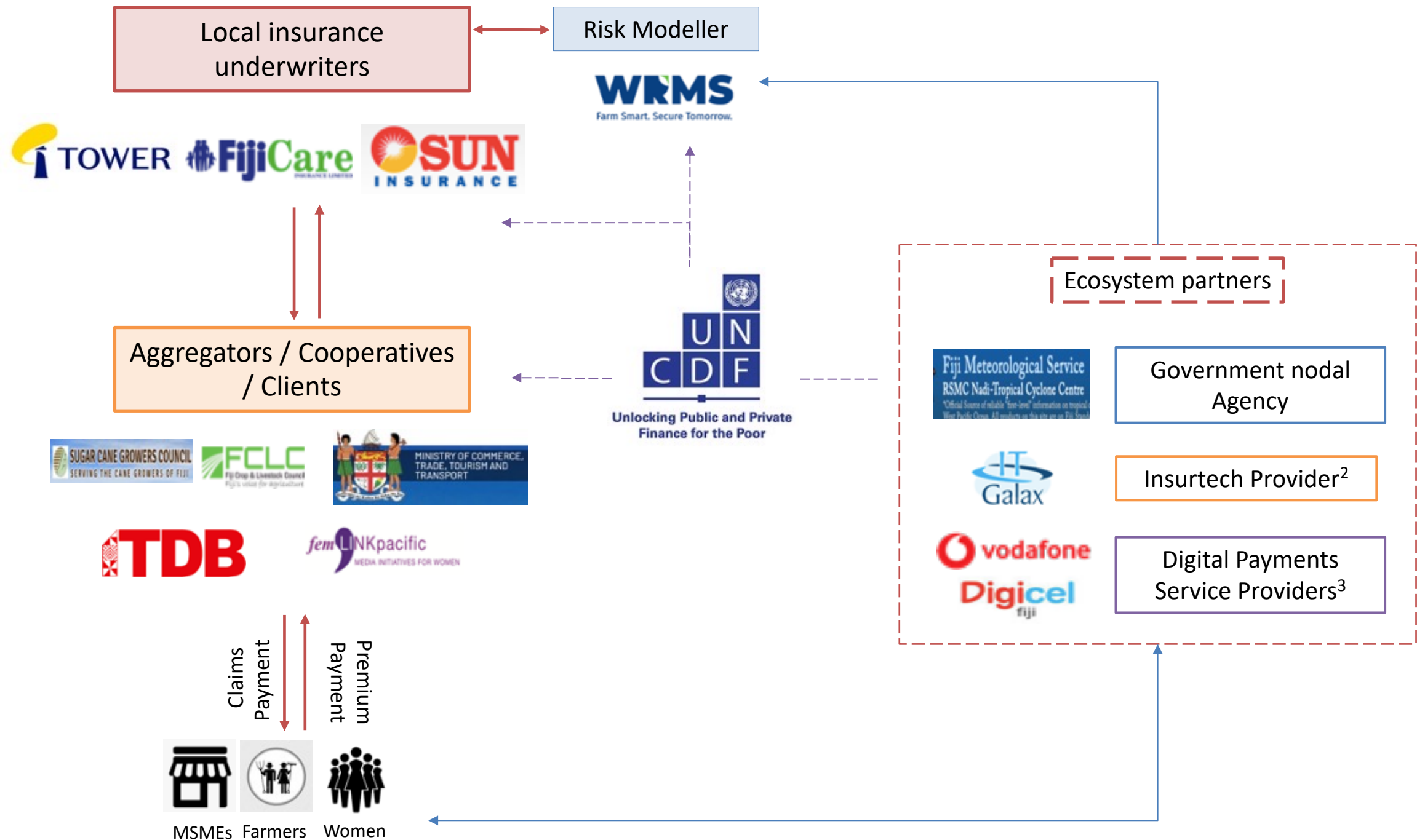
Tourism



Social Welfare

Climate Risk Insurance as a Solution





Ecosystem Partners

Private Sector Partners

1. Cane Farmer's Co-operative Savings and Loans Association
2. Fiji Crop and Livestock Council
3. Fiji Coconut Millers Ltd
4. Fiji Rice Pte Ltd
5. Sugarcane Grower's Council
6. Tailevu Dairy Farmers Co-operative Association Limited
7. Tonga Development Bank
8. National Bank of Vanuatu
9. FijiCare Insurance Limited
10. SUN Insurance Company
11. VanCare Insurance Co
12. Tower Insurance Co (and group)

Consumer Empowerment Partners

1. MSME Fiji, Govt. of Fiji
2. Fiji Commerce and Employer's Federation
3. Women's Fund (Fiji)
4. Consumer Council of Fiji
5. Vanuatu Chamber of Commerce and Industry
6. Fem Link Pacific
7. Pacific Disability Forum
8. Women in Business (Fiji)
9. Milliman
10. MSC Consultants

Policy and Regulations

1. Reserve Bank of Fiji
2. Fiji Ministry of Economy
3. Reserve Bank of Vanuatu
4. National Reserve Bank of Tonga
5. Access to Insurance Initiative (a2ii)
6. Alliance for Financial Inclusion

Digital Ecosystem Partners

1. IT Galax Solutions
2. Weather Risk Management Services (WRMS)
3. Risk Shield Consultants
4. GIS Consultants
5. Digicel
6. Vodafone

Partnership with UN Agencies



World Food
Programme



Food and Agriculture
Organization of the
United Nations



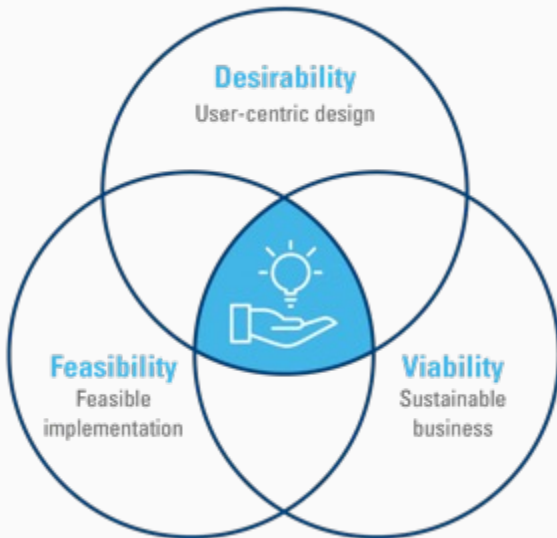
IFAD
INTERNATIONAL
FUND FOR
AGRICULTURAL
DEVELOPMENT

Product portfolio developed/supported

Country	Product Type	Target Market
Fiji	Cyclone Wind / Wind & Rainfall	Low-middle income households
Fiji	Parametric Insurance for Social Welfare Beneficiaries	Social Welfare Beneficiaries under Department of Social Welfare & WFP program
Fiji	Parametric Insurance for SMEs	Insurance for Small businesses to cover their exposure to Disaster events
Fiji	Excess Rainfall Index & Cyclone Index	Sugarcane and Rice Farmers
Vanuatu	Parametric Product for Cyclone Risks	Farmers/Fisherman/SMEs
Tonga	Parametric Product for Cyclone Risks	Farmers/Households/SMEs
Tonga	Bundled Parametric EMI Protection	SME borrowers through Tonga Development Bank

Only the social welfare programme is subsidized. All other products are directly paid by the policy holders.

UNCDF uses a unique ecosystem-based implementation model to drive adoption of CRI solutions



- 01 UNCDF works directly with **private sector insurers and re-insurers** to design, test and scale climate risk insurance solutions
- 02 UNCDF complements technical assistance with **blended financing instruments**, including loans and grants
- 03 Unique **aggregation model** and use of **digital solutions** to drive adoption and achieve scale
- 04 **Collaborate with governments** to support innovative policy solutions (e.g., regulatory Sandbox) and enable industry dialogue through national-level working groups
- 05 We use **Research, Training and Literacy** to ensure customers provide feedback and are empowered to make informed choices.

“Programme of Many Firsts”

- **First parametric microinsurance (market-based) in the Pacific.** Launched on Aug 25, 2021. Onboarded 1,388 Fijians (32% women) for the 2021/2022 cyclone season. Scaled up to over 4000 for 2022-2023 season with improved products
- **First insurance initiative in the Pacific to use digital onboarding (iOnboard) and cloud-based database platform for signing up members.** Digital tools as distribution channels.
- **First entity** to be granted approval under the **Reserve Bank of Fiji’s Regulatory Sandbox Policy.**
- **Parametric Insurance premiums are VAT exempt** by the Fiji Government
- **First ‘social protection insurance’ pilot with WFP.** Covers 274 welfare beneficiaries. Further coverage to 2000 welfare participants current year by Fijian Govt

Opening Remarks

by Mr. Esala Masitabua, Deputy Governor of the Reserve Bank of Fiji

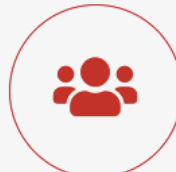
A2ii's work in the insurance sector and the context of the Report

By Ms. Hannah Grant, Head of the Secretariat, A2ii

Mission and Vision of A2ii



The A2ii's **mission** is to build the capacity and understanding of supervisors to facilitate the promotion of inclusive and responsible insurance



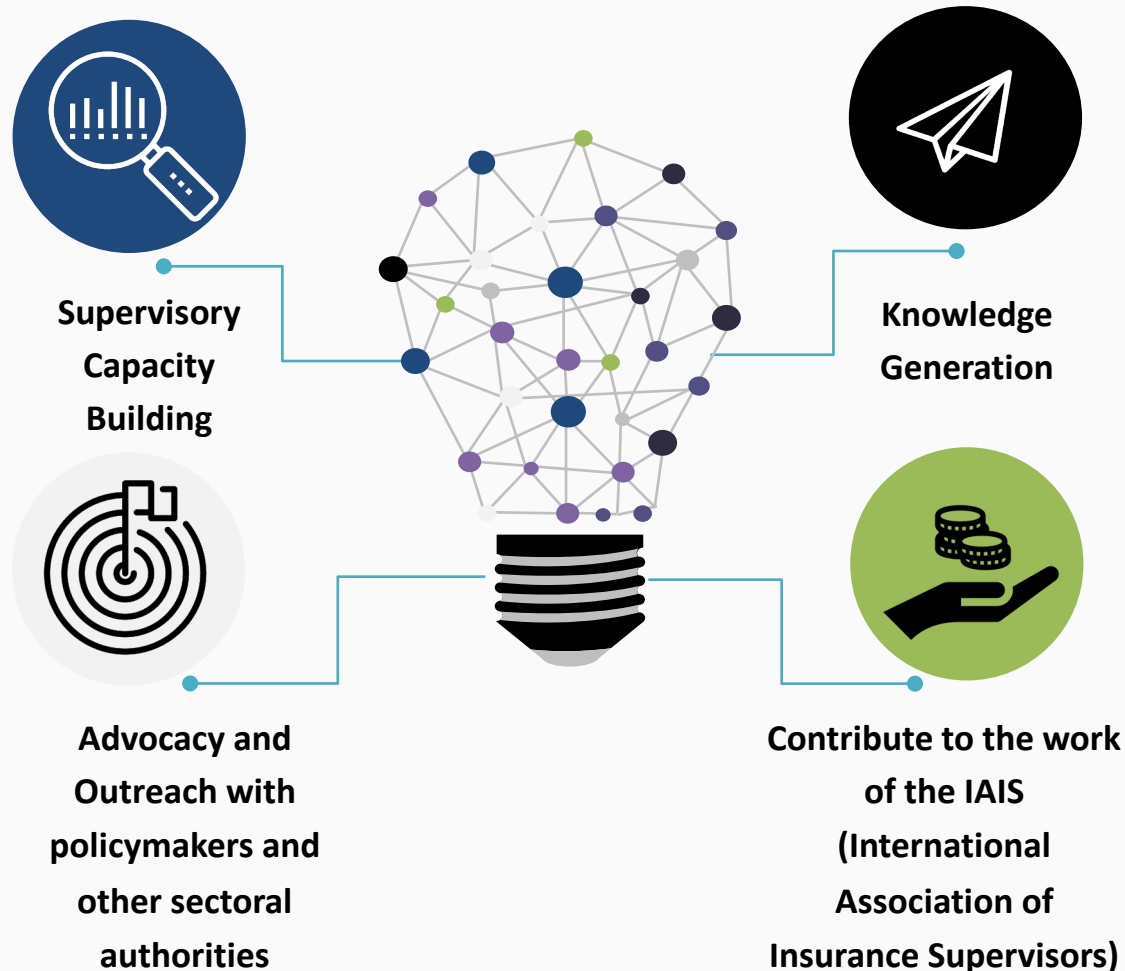
Our **vision** is that more poor and vulnerable people have access to and use affordable insurance appropriate for their needs.

The Initiative was created in 2009 to respond to requests from policymakers, regulators and supervisors for learning and advice on access to insurance.

The A2ii was established by the following organisations: **the IAIS, BMZ, CGAP, the International Labour Organization, represented by the International Labour Office (ILO)** subsequently renamed the Impact Insurance Facility and FinMark Trust.

A2II's role in promoting best practices for insurance regulators

Areas of A2ii's Global Supervisory Support



Regulation and supervision of index insurance is still relatively nascent

A2ii published papers on the topic in 2018 and 2021, this new joint A2ii-UNCDF paper builds on these efforts and is based on regulatory and market practices from **ten different developing countries**

This new joint publication provides insurance regulators and other industry practitioners with **very practical advice** on things to consider when engaging in index insurance with a particular focus on **consumer protection and a risk-based approach to regulation.**

Brief background about Risk Shield

By Mr. Agrotosh Mookerjee, Index-insurance actuary and team leader of the best practice guidelines research, Risk Shield Limited

Risk Shield-Brief Profile

We are a specialist technical service provider and leading consultancy firm for delivering insurance solutions for the mass market in developing and emerging countries

We provide actuarial advisory services and deliver technical and operational inputs in numerous products and projects on agricultural, index-based, health, life, digital-based and other mass market insurance products in Africa, Asia and Europe

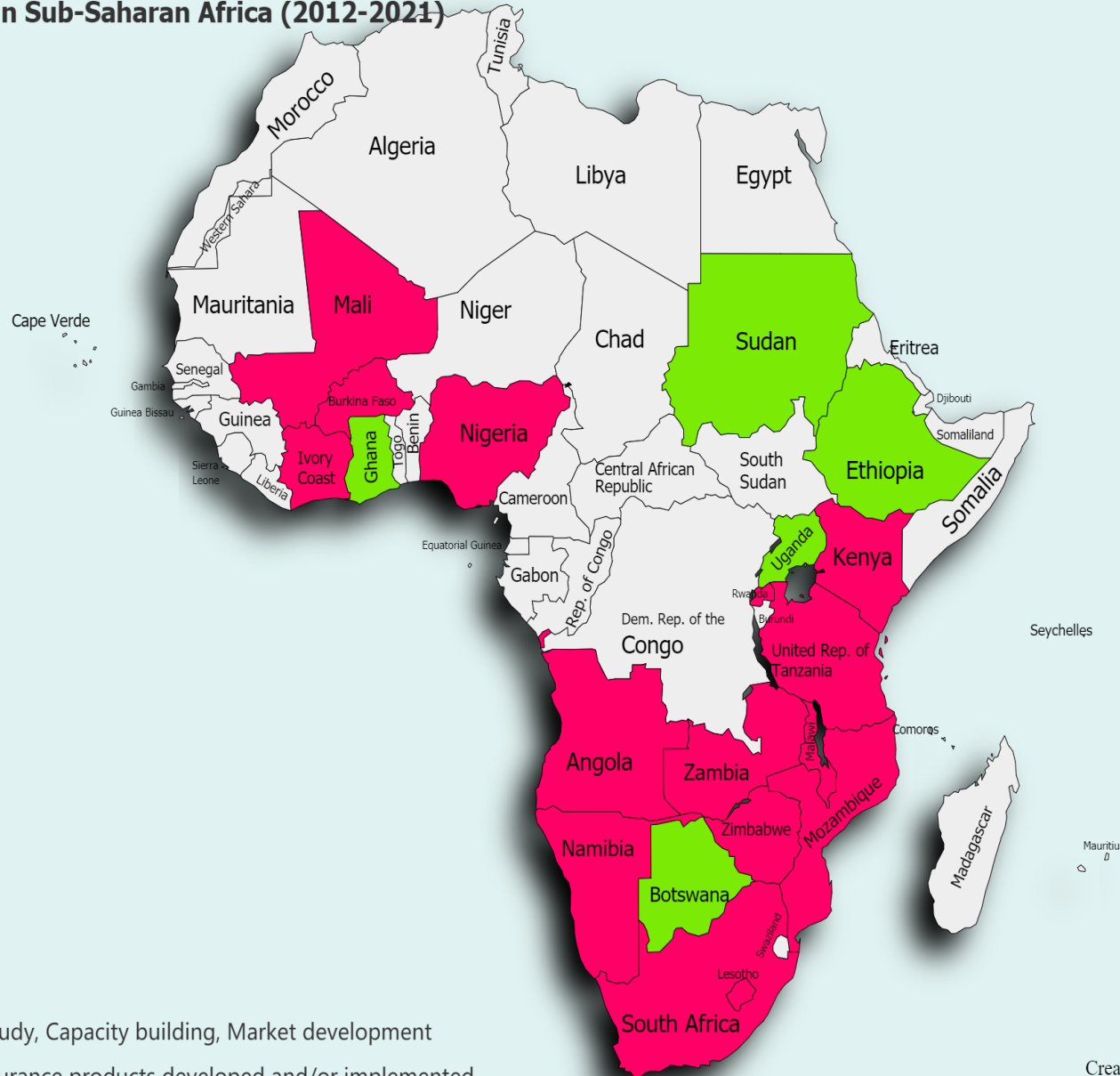
Over 2015-2020, our agricultural and other microinsurance products have insured approximately **7 million smallholder farmers and over 40 value-chain stakeholders in more than 30 countries in partnership with over 25 insurance companies and over 10 reinsurance companies**

We provide support in setting up, operating and improving insurance products. Key areas of support are:

- a. Actuarial Expertise and Technical Support
- b. Feasibility Studies and Diagnostics
- c. Capacity Building and Trainings
- d. Operational Support

Risk Shield-our Outreach In Africa (2015-2021)

Experience in Sub-Saharan Africa (2012-2021)



We have also worked in:

- **Asia:** Bangladesh, Cambodia, China, India, Indonesia, Mongolia, Nepal, Palestine, Philippines, Sri Lanka, Thailand and Vietnam;
- **Europe:** Albania, Armenia, Bosnia and Herzegovina;
- **Australasia:** Papua New Guinea, Fiji, Vanuatu
- **Applied research projects:** Germany, United Kingdom, United States

Risk Shield- Our Services

Actuarial Expertise and Technical support: We specialize in the actuarial analysis of insurance products. Our actuarial areas of expertise include Big Data Analytics of satellite-based weather data and developing different types of indices to insure production and post-production losses. We offer actuarial pricing based on both deterministic and stochastic models, statistical risk analysis, multi-variate modelling and data mining techniques. We also provide support on product design, underwriting, reserving, capital modelling, regulatory guidelines, monitoring of product performance and analytics in associated agri-business and banking/ micro-finance products. We also offer services as a claims calculation agency for index insurance products and carry out claims assessments for indemnity products in some cases. We have supported the regulatory approval of new products in *Bangladesh, Ghana, Lesotho, Nigeria, Nepal and Zambia*

Operational support: We provide end to end operational support for all modalities, which includes training of trainers, supporting marketing campaigns, preparation of the insurance policy document and reinsurance slip and negotiating placement of the insurance and reinsurance cover. We also advise on the modalities of premium and claims payment, evaluation of products and explanation of claim pay-outs

Capacity building: Training of all relevant stakeholders is key for the success of inclusive insurance products. We specialise in the capacity building and training of different stakeholders, such as insurers, reinsurers, banks, financial institutions, agri-businesses, regulatory bodies, meteorological departments, government ministries and farmer organizations. We can also deliver specialist actuarial trainings on key technical areas for agriculture, index and other types of insurance products (on Pricing, Product Design, Satellite Data Analytics etc.). We have delivered actuarial trainings in many countries, such as *Angola, Bangladesh, Ghana, Malawi and Zambia*. We are also able to deliver trainings to smallholder farmers, rural entrepreneurs, local communities and field staff. We are also able to develop marketing materials and training manuals for field level trainings of mass-market insurance products

Feasibility studies: We have carried out numerous feasibility studies and diagnostics on different types of insurance and social security solutions. In these studies, we are able to assess technical, operational and policy related feasibility of different types of products for different countries and types of end-beneficiaries. We also specialise in data collection, SWOT analysis, analysing distribution models, business projection and strategic planning. We have carried out feasibility studies and market diagnostics in *Albania, Armenia, Bosnia, Cambodia, Malawi, Mozambique, Nigeria and Zambia*

BEST-PRACTICE CONSIDERATIONS FOR REGULATORS AND PRACTITIONERS

By Ms. Sawsan Eskander, Actuarial Consultant, Risk Shield Limited

Best Practice Considerations

1. General principles

defining and differentiating between different insurance product categories

2. Consumer protection

product oversight, intermediary and distribution channel requirements

3. Prudential supervision and Supply side guidelines

approval and review of products, minimum solvency requirements

1. General Principles

Differentiate between **Index insurance** and **Derivatives**

Ensuring **insurable interest**

Differentiate between **Index insurance** and **indemnity-based insurance**

Differentiate between **categories of index insurance**

Structuring a “**good index**”

Digitization

Index insurance, indemnity-based insurance, derivatives

What is indemnity-based insurance?

Indemnity insurance compensates the policyholder on actual losses or damages incurred. It requires the policyholder to report losses and the insurer to verify the losses.

What is index insurance?

An index insurance makes payments to the policyholder if a predetermined index is triggered - the benefit amount is also predetermined based on the index. The claims processing is an automated process, and no claims verification is required.

What are derivatives?

A derivative is a financial instrument that pays based on speculation of an event. For example, a weather derivative holder may be paid in the event of adverse weather irrespective of any actual losses.

Insurable Interest

Insurable interest means when the insured will suffer a financial loss if the insured event occurs. Therefore, it is in the policyholder's best interest for the event to not occur. There is risk of moral hazard / ant selection if insurable interest is not ensured.

The product should include limits on coverage to avoid over-insurance for e.g., linking insured value to cost of underlying loans (for credit-linked products), cost of production, lost income, expected harvest value.

There should be limits on having multiple policies for the same insurable interest.

Index insurance categories

Types of index insurance products

- weather-index agriculture insurance
- weather-index climate disaster risk insurance (for non-agriculture sectors)
- crop-yield index insurance
- hybrid products
- non-meteorological natural disaster risk insurance

Micro, meso, and macro products

- Micro-level index insurance covers individuals / households
- Meso-level index insurance covers “risk aggregators” such as banks microfinance institutions, agribusinesses, national export companies
- Macro-level index insurance covers contingent liabilities that the government might face in the case of a disaster / weather-related event

Regulators and practitioners should consider innovative types of index can be designed, such as pandemic-based indices, tourism revenue indices

Characteristics of a “Good” index

- having objectivity, transparency, being verifiable independently, stating the source of the data, ability to access data quickly, allowing a clear calculation of the insurer’s liability for payouts
- should enable innovation for example,
 - use of indices for sectors beyond agriculture
 - allow use of multiple indices in the same product
 - scope for integrating index and indemnity-based products
- allow using satellite data with quality control checks to ensure accuracy and suitability

Digitization

digital distribution to reduce costs and increase scale

mobile banking for premiums and claims payments

flexible premiums (payments through multiple channels) and claims payments (partial payments)

digital customer awareness-raising and marketing

digital reporting of claims

electronic policy document issuance

e-signatures for customer identification

2. CONSUMER PROTECTION

Product Oversight

Basis risk
management

Product Design
Features

Setting the sum
insured value

Disclosure and
Marketing

Claims calculation,
complaints and
disputes

Claims adjudication

Bundling

2. CONSUMER PROTECTION

Intermediary and Distribution channels

Checklist for assessing distribution channel related factors for index insurance distribution

- ☐ Insurable interest for aggregator and use of product as insurance instead of derivative.
- ☐ Roles & responsibilities between insurer/aggregators/brokers/loss-adjustors and others.
- ☐ Method used to enroll farmers for other business and for insurance.
- ☐ Compatibility with other regulations (e.g. mobile regulator/ministry of agriculture/ministry or department in charge of information and communications technology).
- ☐ Policy wording used for group policy and compatibility with any individual policy certificate.
- ☐ Business case for aggregator e.g. reducing credit exposure, farmer incentive, marketing tool.
- ☐ Method used to pay premium – pre-financing/collection from farmers/subsidy.
- ☐ Incentives used for enrolling policies – commission, administrative fee, profit-share.
- ☐ Scope for delegation of claims payment to aggregator.

3. Prudential supervision and supply-side recommendations

Prudential
supervision

Premium Caps

Additional pricing
and underwriting
areas

Minimum
solvency

Apply the considerations as general principles

- decide whether regulations relating to index insurance is applicable or whether the regulations relating to indemnity-based products / financial derivatives instead

Apply the considerations as best-practice guidelines for practitioners

- disseminated to insurance companies, insurance service providers, etc.
- insurers to demonstrate how to mitigate risks

Apply the considerations as prerequisite criteria for index insurance product approval

- concise, proportionate and adequate criteria to be applied before product approval
- can implement fast-track approval of 30 days

Activity

How can the different best-practice considerations be categorized in terms of their implementation or enforcement by the insurance regulator to achieve a good balance between adequate but proportionate regulations. Please categorize in the following table by putting tick marks. Once done, we will share the recommended table in the report for you to reflect upon the differences.

Suggested implementation considerations for regulators

		Apply as general principle	Apply as best practice for practitioners (e.g. insurers, insurance service providers)	Apply as prerequisite criteria for index insurance product approval
General principles	1. Clearly differentiate between index insurance and derivatives	✓		
	2. Ensure insurable interests	✓	✓	✓
	3. Differentiate between index and indemnity insurance	✓	✓	
	4. Differentiate between different categories of index insurance	✓	✓	
	5. Structure the underlying indices		✓	
Consumer protection	1. Basis risk management		✓	✓
	2. Product design features		✓	✓
	3. Associated processes		✓	✓
	4. Set the sum insured value		✓	✓
	5. Claims adjudication		✓	✓
Supply-side and prudential supervision	1. Efficient distribution channels		✓	
	2. The scope for bundling	✓	✓	
	3. Digitization	✓	✓	
	4. Prudential supervision		✓	✓
	5. Additional supply-side technical areas		✓	✓
	6. Minimum legal and solvency requirements		✓	
	7. Supervision and enforcement	✓		

Workshop 1

- 1) You are an insurance regulator that has recently been made aware of various complaints relating to claims settlement process for index insurance products, which includes long settlement time, claims payment amount confusion etc. To assess the claims settlement process followed by insurers / distribution channels for these products, please develop a checklist for insurers to share so you can recommend improvements for this process.
- 2) You are an insurer who will soon be launching an index insurance product in the market. To ensure appropriate disclosure and marketing, please create guidelines for your marketing team from a consumer protection perspective.

Q&A and DISCUSSION

BEST-PRACTICE CONSIDERATIONS FOR OTHER STAKEHOLDERS

A. Recommendations for Government

Ministry of
Finance

Ministry of
Agriculture

Meteorological
Department

MINISTRY OF FINANCE



MINISTRY OF FINANCE

Tax exemption

Direct Premium Subsidies

Premium Prefinancing

Indirect subsidies

Other financial support

Investing in public goods

Creating a government-owned specialized insurance or reinsurance company

GOVERNMENT PREMIUM SUBSIDIES

Objectives of the subsidy

Targeting

Form of the subsidy

Sustainability

Distortion effect

Exit strategy

MINISTRY OF AGRICULTURE

MINISTRY OF AGRICULTURE

generate data / provide access for data generation through public-private partnerships

communicate availability, features, advantages, and limitations of the insurance products in remote rural areas through the ministry's outlets throughout the country

share lists of suitable associations / other distribution aggregators, make enrolment and claims forms available, disseminate positive customer testimonials

provide farming advisories, risk mitigation extension services, livestock vaccination, and support claims verification

facilitate insurance bundled with government-provided farming inputs and also integrated with farm-input subsidies



METEOROLOGICAL DEPARTMENT



1

Weather Data
maintain good-quality data and provide easy access to historical and up-to-date data sets



2

Weather Stations
increase weather stations- privately funded ones need to be incorporated into national protocols, roles & responsibilities



3

Satellite Data
access and validation of satellite data sources to use for products and quality-check of datasets



4

Logistics
assist with ongoing calculation of indices from weather data and loss from weather-related events



5

Agro-Meteorology
communicate on impending floods, high wind speeds, best sowing window, coming temperature or precipitation anomalies

Recommendations for Insurance Companies

Business Case and Business Plan

- Consideration of vital insurable interests
- Uncovering of economic potential thwarted because of insurable, but currently uninsured, risk
- Developing a thorough understanding of every stakeholder along long insurance value chains
- Accessing the expertise of international reinsurers
- Ensuring everyone's roles and responsibilities in a partnership are clear
- Paying attention to efficient processes

Monitoring and Evaluation

- product performance should be measured for indicators such as loss ratios, renewal ratios and growth ratios
- mechanism in place for receiving stakeholder feedback and incorporating it into future product development
- note global emerging practices for index insurance and apply them to the local context, but also be creative
- index insurance for life, health and accident insurance may also be appropriate – natural disasters such as major cyclones can substantially increase mortality and morbidity risk

Recommendations on Consumer Education

- Explain product using dry-run simulations of ‘as-if’ payouts
- Explain basis risk occurrence- reasons for and ways of mitigating basis risk
- Explain key product features e.g., dates of coverage, nature of risks insured, minimum/maximum pay-outs per perils, expected frequency, deductibles, limits, exclusions, waiting periods etc.
- Integrate consumer education with aggregators, government extension staff, other field operatives
- Explain mechanisms for enrolment, premium payment, claims payments, queries, complaints
- Integrate consumer education with other financial literacy initiatives and overall insurance and risk management trainings

Recommendations for Distribution Channels

Distribution partnership requires alignment of interest i.e. insurance solves a problem for example, the risk of loan default, low demand for agriculture inputs.

Trust – provide confidence to prospective customers that the insurance is reliable

Communication – inform and explain to prospective customers what is being offered

Sales – convince the prospective customer to buy an insurance policy

Logistics – provide policy details and insurance certificates to the customer

Enrolment – record and document all customer information and transmit it to the insurer

Premium collection – physically collect cash and transmit it to the insurer

- already present and trusted in the target market
- have frequent financial transactions with the target market
- well-organized and computerized

Recommendations for Reinsurers

Checklist for assessing suitability of reinsurance strategy for index insurance

- ☐ Expertise of reinsurer with index insurance products and sharing of technical knowledge.
- ☐ Type of reinsurance – quota share/aggregate excess of loss – and rationale behind type used.
- ☐ Method used for payment of reinsurance claims (e.g. claim payments or offset from future premium payments).
- ☐ Reinsurance premium compared with insurer's own calculations on burn cost/risk premium rates.
- ☐ Details on reinsurance treaty (e.g. duration of coverage, renewal clause, dispute resolution).
- ☐ Reinsurers' existing exposures in same country and region, and exposure to systemic risks.
- ☐ Contingency plan if exceeding reinsurance cover – other types of reinsurance, ceding to government.
- ☐ Investment strategy employed by insurer, and rationale behind investment.

Workshop 2

- 1) You are the Ministry of Finance and need to support vulnerable farmers affected by severe weather conditions. Index insurance is being developed by insurers, but they may not be affordable. Please brainstorm ideas on ways you could financially support index insurance.
- 2) You are an insurance company exploring partnership options with distribution channels for crop index insurance for small-scale farmers. What type of distributors do you think would be suitable and what factors would you consider to assess if they would be suitable distribution partners.

Thank You!

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