WHAT IS WEATHER INDEX INSURANCE FOR AGRICULTURE?

Index insurance pays out benefits on the basis of a pre-determined weather index.

Covers crops such as paddy, cotton, maize, potatoes, tea etc.

Covers loss of assets and investments.

Claims settlement does not require traditional claims assessors.
TRADITIONAL VS. INDEX-BASED INSURANCE

TRADITIONAL CROP INSURANCE

- Moral hazard
- Claims have to be individually checked for actual yield loss
- The assessment of yield loss requires specialized training
- Average farm size is about 1 acre hence individual loss assessment costly
- High transaction costs
- No basis risk

INDEX-BASED INSURANCE

- Reduced moral hazard, exogenous determination
- Versatility
- Simplified risk assessment
- Ability to transfer CAT exposures efficiently into international markets
- Lower administrative costs
- Flexibility to target diverse level of risk aggregation
- Basis risk
IMPLEMENTATION CHALLENGES

- Unavailability of weather data
- Perceived complexity of Index Insurance products
- Developing distribution partnerships
- Lack of willingness to pay premiums
OUR COLLECTIVE EFFORTS IN BANGLADESH

- **Reinsurer**
  - Provide reinsurance for agricultural insurance

- **Farmers**
  - Respond to FGDs / give feedback on risks and insurance

- **Mobile technology**
  - For insurance transactions

- **World Bank Group**

- **Distribution channels:**
  - Banks, MFIs, Agribusinesses to offer products to farmers bundled with farming inputs / credit
  - Purchase portfolio index-insurance

- **Weather and crop yield data providers:**
  - Bangladesh Meteorological Department
  - Bangladesh Water Development Board
  - Bangladesh Agriculture Extension Dept.
  - Bangladesh Bureau of Statistics

- **Weather services:** SKYMET Development of Weather Data Grid and Agri Credit Risk Tool

- **Government – to set up weather data infrastructure**

- **IDRA – to provide regulation for index insurance**

- **M&E firm**
  - Conduct FGDs / surveys for weather data validation and product design
ACHIEVEMENTS TILL DATE

**Macro Level**
- Digitized Archive of Weather and Crop Production Data for Last 32 years
- Retrievable Cloud Based Weather Data Grid As a Interpolated Smooth Weather Data Source
- Advocacy with Government Agencies and Engaging Other Policy Stakeholders
- Demonstration Effect for Future Agri-insurance Programs

**Meso Level**
- 45 Actuarially Designed Weather index and Area yield index products Filed with IDRA, that can be used by any insurer
- Awareness Building of Agri Value Chain Members on Role of Weather Index Insurance (WII)
- Agri-Credit Risk (ACR) Tool for Bankers
- Training to Industry Players (Insurers) on WII Design and Delivery

**Micro Level**
- 27 Products are Piloted Across Bangladesh
- ~17,000 Farmers Insured
- 4,350 Farmers Received Claims
- USD 85,943 Premium Received

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**IFC**
INTERNATIONAL FINANCE CORPORATION
WORLD BANK GROUP
OUR VISION: AGRI-INSURANCE ECO-SYSTEM

- Weather Based Agri-insurance
- Area Yield based Agri-insurance
- Portfolio Level Insurance
- Livestock Insurance
- Real-time Update on Weather Data grid
- Agri Credit-risk Assessment Tool
- Weather Advisory to farmers
- Linkage between Partners to Create Win-Win Eco-system

Input Provider Linkage

Seed Companies
Fertilizer Companies
Agro-Chemical Companies

Alternate Aggregators / Contract Farming Linkage

Weather Based Agri Advisory

Insurance Bundled with Agri Input

Production
Transport
Storage
Processing
Buyer

Credit Linkage

Digital Financial Services for Payments of Premium and Claim

Banks

IFC

International Finance Corporation
World Bank Group
THANK YOU