INITIATIVES FOR ENHANCING THE RESILIENCE OF SMALLHOLDER FARMERS FACING CLIMATE CHANGE, THROUGH CROP AND LIVESTOCK INSURANCE
Small farmers are exposed to climate threats

**PROBLEM**

**THREATS**
- Frost
- Hail
- Flooding
- Drought

**AFFECT:**
- Their food security
- Rural migration to towns
- Continuity of farming activities
Climate Change constitutes a very high risk for farmers whose livelihood depends on farming and ranching activities.

**DATA FROM BOLIVIA**

- There are 871,927 Farming and Ranching Units and 2,760,239 hectares under cultivation.
- 80% of the Farming and Ranching Units work on areas of less than 5 hectares: family farms (30% x hectares).
- Family farming produces 70% of the food consumed in Bolivia.
- The impacts of Climate Change are reducing rural incomes by an average of 20%.
- During the past decade, floods and droughts have occurred regularly, together with rivers over-spilling their banks, hailstorms and frosts, affecting some 420,000 people.
- The resulting economic costs are estimated by ECLAC at a total of US$ 547 million, equivalent to 3% - 4% of the nation's GDP.
Networking with other actors for providing technical advice on agriculture and DRR as prevention (non financial services)

SENNAHMI : Data generation and early warnings

IN RESPONSE, AN INITIATIVE HAS APPEARED THAT IS CONDUCTING PILOT PROJECTS OFFERING AGRICULTURAL INSURANCE THROUGH RISK TRANSFER FUNDS - RTF
How do RTFs work?

Risk Transfer Funds

PREMIUM

RESERVE FUND
COSUDE RESOURCES
(Management costs covered)

FUND INCOME, calculated to cover indemnities.
(Basic actuarial calculation)

Farmers are motivated by the following RTF characteristics:

- The areas covered constitute their main sources of income.
- For many of them, this is their first experience with insurance.
- Farmers had the option of recovering at least part of their investments, when and if affected by climate-related phenomena.
How have we contributed to reducing vulnerability?

- Generating and compiling data on farming and risk
- Identifying major climate-related threats by region
- Strengthening Early Warning Systems
- Developing risk transfer mechanisms
- Heightening awareness and educating
INSURANCE TYPES – RTF

COMPENSATION FOR DAMAGES
Indemnity paid out by the % impact on affiliated land parcels, up to the full insured amount.

COMPENSATION FOR HARVEST INCOME
When audited income falls below the trigger figure, indemnity is paid out in proportion to the loss of income.
RTFs IMPLEMENTED

**RTF POTATOES**
- Harvest Income Compensation
  - Coverage
    - Frost
    - Hailstorm
    - Drought
    - Flooding

**RTF CORN**
- Harvest Income Compensation
  - Coverage
    - Frost
    - Hailstorm
    - Drought
    - Flooding

**RTF PEACHES**
- Compensation for Damages
  - Coverage
    - Frost
    - Hailstorm

**RTF GRAPES**
- Compensation for Damages
  - Coverage
    - Hailstorm

RTF Transferred to: ALIANZA SEGUROS Insurance Co.
Lessons Learned – RTF Implementation

Ensuring that farmers include taking out agricultural insurance among their priorities requires much hard work over time focused on Insurance Education and awareness-heightening.

A consumer protection policy must be drawn up (Authority).

The main problem in designing agricultural insurance is the lack of historical agricultural and climatological data (X homogeneous zones), together with geographical dispersion.

Technical assistance in ACC and DRR are the best supplementary ways of contributing to comprehensive risk management.
Drafting the Pachamama Universal Agricultural Insurance
Law No. 144 (2011) Farming Revolution

**DATA 2017-2018 agricultural campaign**
- 254,102 hectares of croplands insured
- 121,231 farmers in 121 municipalities
- 26,974 farmers receiving indemnity
- Amount of indemnity paid out
- Bs 18,270,695

**Insurance against catastrophes**

- **PACHAMAMA UNIVERSAL AGRICULTURAL INSURANCE**
- **INSA Agricultural Insurance Institute**
- **SAMEP PIRWA**
CHART – LIVESTOCK INSURANCE FOR DAIRY CATTLE

UPF upgrades economic activities (Production, processing, sales, services, others)

Policy issued and Indemnity paid out

Report on farmer indemnity

Collect premiums

Claim notifications

Inspection notification

FACILITATOR/COORDINATOR

CALL CENTER

VETERINARIANS EXPERTS

INSURANCE COMPANY

Reinsurance Segment

Current Reinsurers

AON BENFIELD

UPF

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UPF
**Insureds**
- Farmers, ranchers and smallholders in Bolivia with agricultural loans in the dairy sector.

**Insurable livestock**
- Dairy herds
- Milk cows, heifers and breeding Bulls

**Risks Covered**
- Livestock deaths due to named diseases, not pre-existing when the coverage began
- Fortuitous accidents.
- Climate-related events: frost, hail, snow, flooding, lightning strikes and gales.
Lessons Learned

Loan officers are the backbone of the operation for reaching forecast sign-up levels, which is why an incentive is recommended.

Capacity-building in insurance and the product must be stepped up, ensuring that loan officers can respond effectively to queries from farmers, particularly when livestock insurance is new on the market.

Ensuring that insured livestock is identified should be the responsibility of the farmers; however, in this pilot program, ear-tagging is handled by loan officers, which also hampers large scale implementation.
Parametric Insurance for Soybean Growers
Index: Water Balance
NETWORKING AMONG THE ACTORS INVOLVED

1. Official entity drawing up the Monthly Water Balance
2. Provides information on output and logistics resources, serves as a hub for farmers, financing the purchase of a weather station
3. Oversees SIC Santa Cruz proceedings
4. EIF with potential soybean growing portfolio
5. Company that will accept the risk and oversee the proceeding, in charge of registering and issuing the policy
**STEPS IN ITS IMPLEMENTATION**

**Data Survey**
- History of adverse events
- Weather information – SENAMHI
- Income track record

**Index Definition**
- Past water balance records
- Actuarial analyses and validation
- Re-insurance support (through AON)
- Preparation of technical note

**Search for Clients and Partners**
- Financial Brokering Entities, Feedstock Providers, Farmer Associations
- Insurance companies
WE BELIEVE IN THE PRODUCTIVE HANDS OF BOLIVIA

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