

**INITIATIVES FOR ENHANCING THE
RESILIENCE OF SMALLHOLDER FARMERS
FACING CLIMATE CHANGE, THROUGH
CROP AND LIVESTOCK INSURANCE**



PROBLEM

Small farmers are exposed to climate threats

THREATS

- Frost
- Hail
- Flooding
- Drought

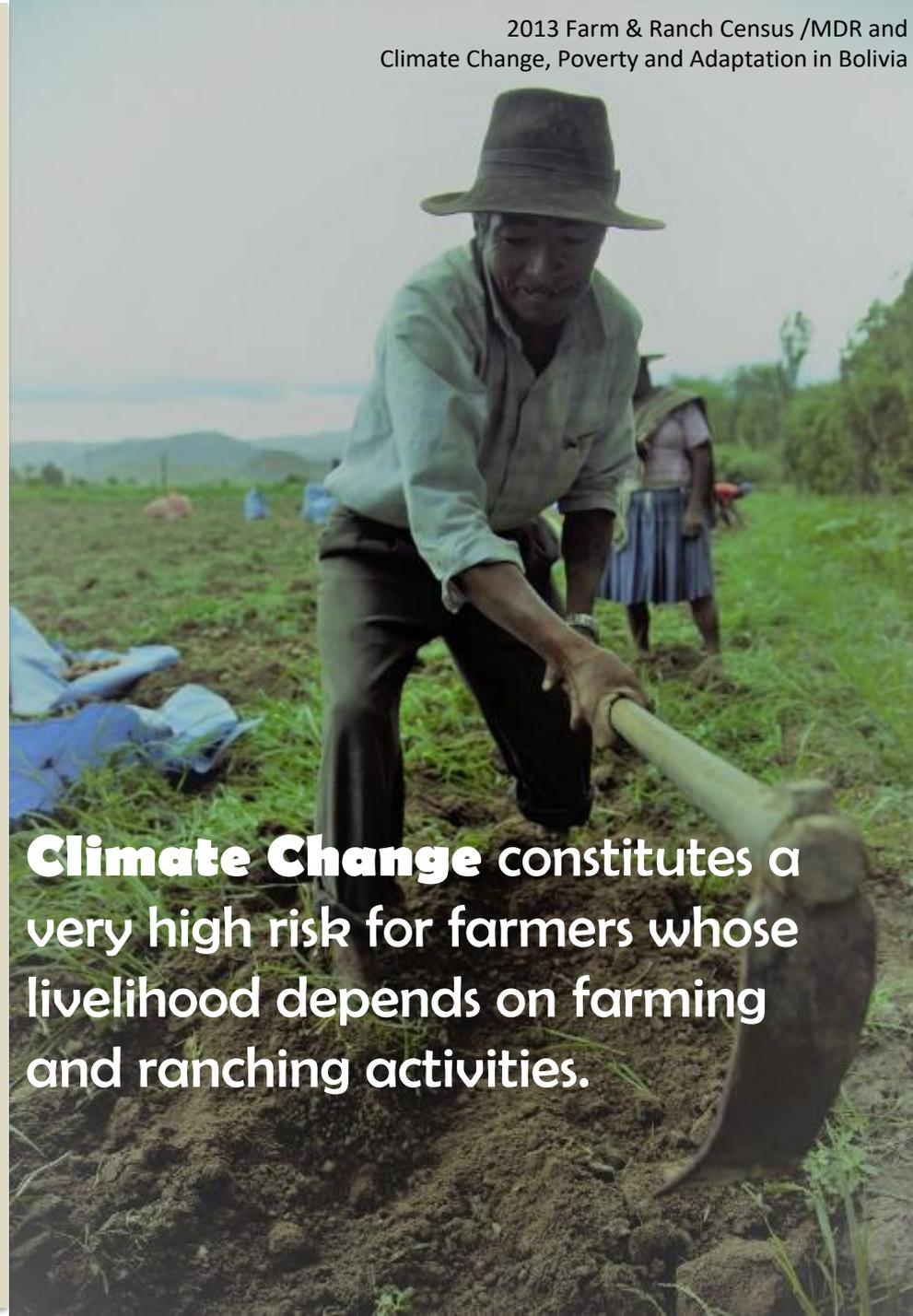


AFFECT:

- Their food security
- Rural migration to towns
- Continuity of farming 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.



Climate Change constitutes a very high risk for farmers whose livelihood depends on farming and ranching activities.

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



Networking with other actors for providing technical advice on agriculture and DRR as prevention (non financial services)

SENAHMI : Data generation and early warnings

How do RTFs work?

Risk Transfer Funds



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

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***

**PACHAMAMA UNIVERSAL
AGRICULTURAL INSURANCE**

**INSA
Agricultural
Insurance
Institute**

Insurance against catastrophes

**SAMEP
PIRWA**

**DATA 2017-2018
agricultural campaign**

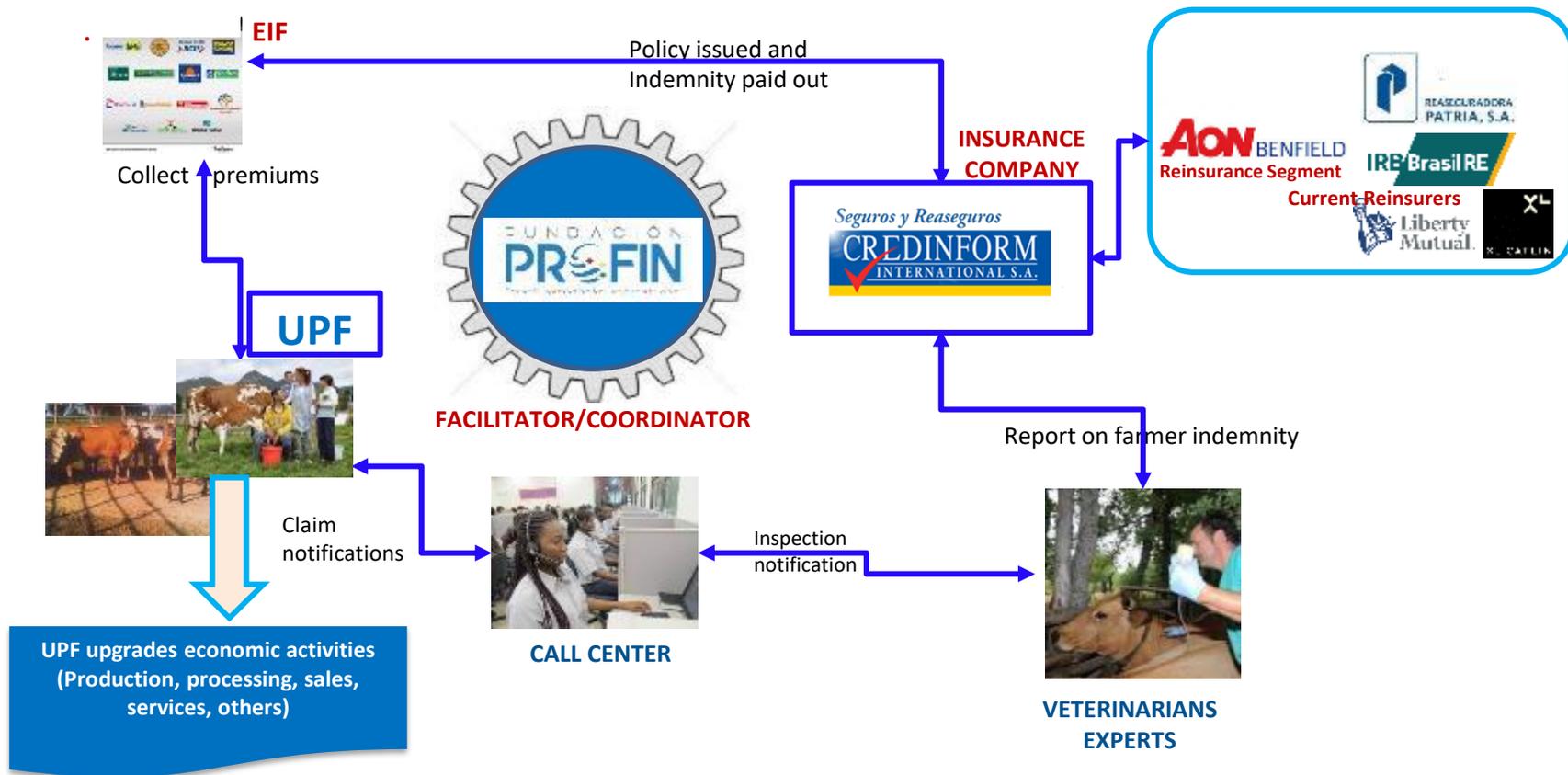
- **254,102 hectares of croplands insured**
- **121,231 farmers in 121 municipalities**
- **26,974 farmers receiving indemnity**
- **Amount of indemnity paid out**
- **Bs 18,270,695**



Livestock Insurance for Dairy Cattle



CHART – LIVESTOCK INSURANCE FOR DAIRY CATTLE



CHARACTERISTICS



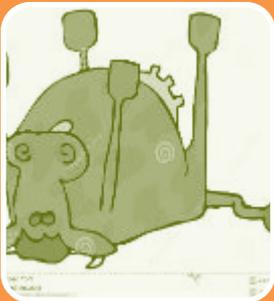
Insureds

- 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



Official entity drawing up the Monthly Water Balance



Provides information on output and logistics resources, serves as a hub for farmers, financing the purchase of a weather station



Oversees **SicSantaCruz** proceedings



EIF with potential soybean growing portfolio



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**



FUNDACIÓN
PROFIN
Creando oportunidades, mejorando vidas

**PRODUCTIVE HANDS
OF BOLIVIA**

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