Forecast based Financing (FbF)

Cruz Roja Peruana

German Red Cross

german humanitarian assistance
DEUTSCHE HUMANITÄRE HILFE

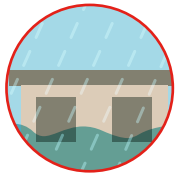
RED CROSS/RED CRESCENT CLIMATE CENTRE

International Federation of Red Cross and Red Crescent Societies

The Netherlands Red Cross

FORECAST-BASED FINANCING

The project uses an innovative strategy to prepare for extreme weather events



Traditional intervention:
To respond and send funds once a disaster has occurred.

Early actions based on forecasts:
To respond before a potential event using hydrometeorological forecasts.

WHY USE THIS STRATEGY?

Early warnings from forecasts provide an opportunity for actors , such as governments and the Red Cross Red Crescent, to implement effective and timely preparedness. This is done before a disaster.

Forecasts provide relevant information including the location, intensity, probability and duration of an extreme event.

The cost of future humanitarian interventions is reduced by such actions that protect lives and livelihoods.

KEY TERMS

Early actions: Actions implemented before the potential impact of an extreme event, with the aim of reducing this impact and increasing resilience.

Early warning: Scientific information about what is happening and what might occur.

Trigger: A forecast that launches action, when a predetermined probability and danger level is exceeded.

Danger level: The magnitude of an extreme event that causes impacts. The danger level will depend on vulnerability of people, exposure of a region, and the willingness to act. It should be updated regularly as the region changes over time.

Forecast: A statement of expected meteorological and environmental conditions for a time and place.

Standard operating procedure (SOP)
Guidelines for who takes action, when, where, and with what funds. The guidelines are triggered by a forecast reaching pre-defined levels of probability and danger.

WHAT ARE THE KEY ASPECTS OF THE PROJECT?

HOW DOES IT WORK?

1 Understand risk scenarios

Scenarios are designed to analyse the risk, including historical impact data and level of vulnerability.

2 Identify available forecasts

- Selection of national and international forecasts.
- Taking into consideration the probability, intensity and lead time to the occurrence of an event.

3 Formulate early actions

Such as:

- Awareness raising for hygiene or safe drinking water
- Strengthening of houses.

4 Identify danger levels

- Define the threshold for a specific hazard.
- Identify the critical characteristics, analysing vulnerability and the historical impact in the area of intervention.
- Consider institutional capacity to act.

5 Create a standard operating procedure (SOP) or early action guidelines

This includes:

- Responsibilities.
- Which forecast will trigger which action.
- Where to act.
- What funds are to be made available.

6 Validate SOP with key actors

- Meteorological services.
- Local governments.
- National systems to manage disaster risk.
- Run a simulation of the SOP.

Monitoring hydrometeorological forecasts

YES
The danger level is exceeded

Early actions are to be implemented *(according to the SOP)*

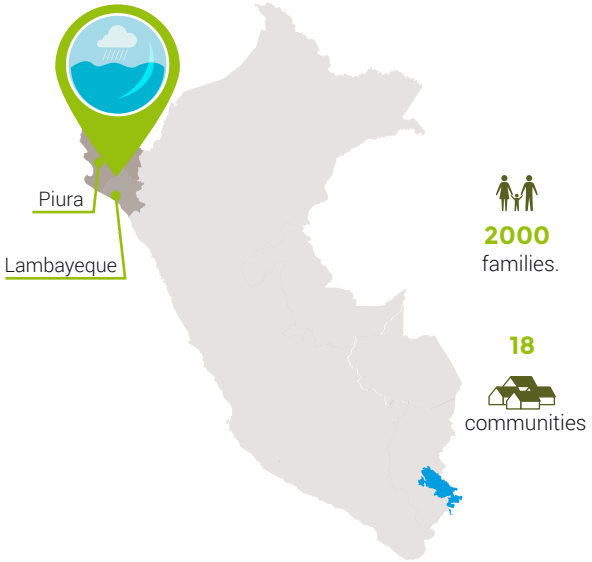
No
The danger level is not exceeded

No early actions are to be implemented

EL NIÑO EVENT

WHY USE FORECASTS IN LAMBAYEQUE AND PIURA?

- In 1982/1983 and 1997/1998, El Niño led to severe impacts in this region, causing significant great loss of life, infrastructure and crops.
- The level of preparedness in communities remains low.



GENERAL PREPAREDNESS AT THE BEGINNING OF THE SEASON

- **40** volunteers trained from Peruvian Red Cross branches
- **18** vulnerability and capability assessments conducted
- **2000** families attended awareness sessions on community health
- **18** early warning committees established
- SOP confirmed by key actors.

FORECAST:

THREE MONTHS lead time

If the forecast exceeds the danger level

The following early actions will be implemented with low or medium probability:

- **2000 families** will receive awareness raising sessions on water and hygiene
- **18 community** brigades will be constituted, equipped and trained.

In case of an extreme weather forecast event with high impact

The following early actions will be implemented:

- Build **1000 shelters**
- Build **1000 latrines**
- Provide assistance to store **seeds and food items.**

ONE MONTH lead time

If the forecast exceeds the danger level

The following early actions will be implemented with medium probability forecast:

- Distribute **18** first aid kits
- Preposition **2000** buckets and chlorine tablets
- Preposition six **15** litre water tanks each
- Preposition **1000** hygiene kits
- Fumigate **18** communities
- Reinforcing **300** houses.

SEVEN DAYS lead time

If the forecast exceeds the danger level

The following early actions will be implemented:

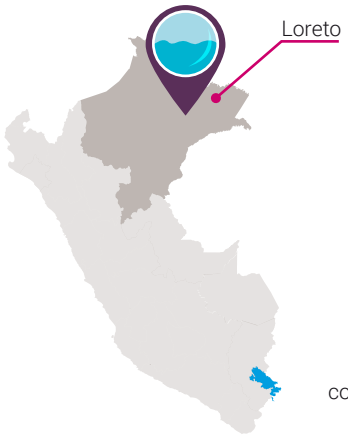
- Distribute **1000** buckets, chlorine tablets and hygiene kits (for one family for a month).

FLOODS

WHY USE FORECASTS IN LORETO?

- In 2012 and 2015 floods seriously affected sanitation and supplies of safe water. In 2012, nearly 230 000 people were affected and a large number were displaced[1].
- Despite the high frequency of floods, the level of preparedness in communities remains low.

WHERE IS THE PROJECT LOCATED?



1400 families approx.

07 communities

GENERAL PREPAREDNESS AT THE BEGINNING OF THE SEASON

- **25** volunteers trained from local Peruvian Red Cross branch
- **6** vulnerability and capability assessments conducted
- **6** community risk maps created
- **6** community sanitary campaigns.
- **SOP** confirmed by key actors

FORECAST:

ONE MONTH lead time

If the forecast exceeds the danger level

The following early actions will be implemented:

- **6** awareness campaigns on hygiene and community health
- CL Activate **2** chlorine production installations
- Distribute **9** community first aid kits
- Install **water** collection system at critical points
- Build **five** temporary platforms for water bladders (in case of forecast of extreme weather with a high impact).

NINE DAYS lead time

If the forecast exceeds the danger level

The following early actions will be implemented:

- Distribute **biodegradable** trash bags
- CL Distribute **chlorine tablets** and **liquid chlorine** manufactured by Peruvian Red Cross branches
- Distribute 20 litre **buckets** and 140 litre **containers** for water (depending on size of community)
- Distribute **hygiene kits** for displaced people
- Coordinate **water** distribution.

If this forecast is activated first, the 'one-month' actions are also conducted

TWO DAYS lead time

If the forecast exceeds the danger level

The following early actions will be implemented:

- Inform brigades and community leaders about **evacuation alert.**

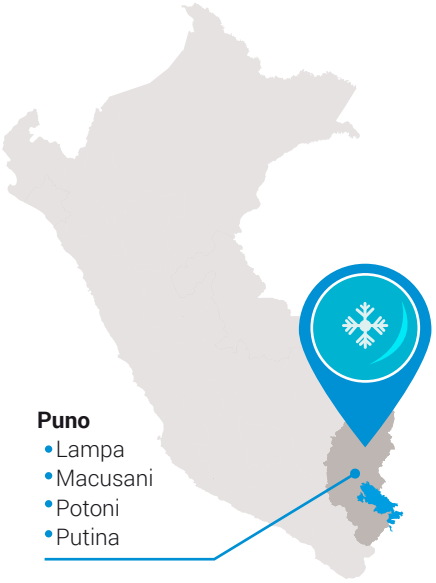
[1]Regional Gobernment of Loreto et al. Lecciones Aprendidas Loreto. Lima: 2012, p. 24

SNOWFALL AND COLDWAVES

WHY USE FORECASTS IN PUNO?

- Coldwaves have a severe impact on livelihoods and health especially amongst children and elderly people.
- Despite their frequency, preparedness in communities remains low.

WHERE IS THE PROJECT LOCATED?



888 families

04 districts

GENERAL PREPAREDNESS AT THE BEGINNING OF THE SEASON

- **25** volunteers trained from local Peruvian Red Cross branch
- Community brigades trained in early warning and first aid procedures
- **20** vulnerability and capability assessments conducted
- **444** warmup kits prepositioned
- **444** livestock kits prepositioned
- **1** first-aid kit per community.

FORECAST

FIVE DAYS lead time

If the forecast exceeds the danger level

The following early actions will be implemented:

- Disseminate forecast, activate standard operating procedures and communal early warning system
- Distribute **444** warmup kits
- Distribute **444** livestock kits.





TECHNICAL AND COORDINATION TEAM

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