
Incorporating Weather Index Insurance with Low-Emissions and Climate-Resilient Development Strategies (LECRDS) in Northern Peru

Project Briefing Document

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Extreme El Niño events cause catastrophic rainfall and flooding in northern Peru, particularly in the province of Piura. Even with advanced warning, poor households struggle to manage the destruction of crops, property, and infrastructure brought on by extreme El Niño events; they lose their productive assets that define their livelihoods, and as a result endure unrecoverable economic hardship. El Niño is a cyclical phenomenon and has long been a threat in Peru. However, in 2004, the Peruvian meteorological service, SENAMHI, predicted that global warming is likely to increase the frequency and severity of future El Niño events.

In partnership with GlobalAgRisk, UNDP is currently supporting a project to enhance the risk coping and adaptive capacity of rural communities and the working poor in northern Peru as they face the consequences of El Niño-driven flooding. As part of UNDP support to countries to transition to low-emission, climate-resilient development, and in line with a area-based approach to managing climate change risks and opportunities, which is directed at strengthening the capacity for risk management and adaptation to climate change at national and sub-national levels, UNDP and GlobalAgRisk are working to develop index-based El Niño Insurance in Piura that can be utilized by households, producer associations, and the regional government in Piura, and to provide risk management education that can facilitate improved resilience and adaptation to El Niño and other climate risks within the community.

The El Niño Insurance designed by GlobalAgRisk is the world's first on three important fronts:

- 1) The first index insurance contract to use sea surface temperature;
- 2) The first regulated "forecast" insurance; and
- 3) The first index insurance to be framed as contingent insurance.²

El Niño Insurance makes payouts *before* the onset of catastrophic weather. Insurance payouts are triggered by extreme levels in the average November–December sea surface temperature as measured by the U.S. National Oceanic and Atmospheric Administration (NOAA). NOAA monitors El Niño Southern Oscillation (ENSO) by measuring sea surface temperatures from different regions in the Pacific. Sustained high levels in ENSO 1.2, a composite of Regions 1 and 2 located off the coast of Peru, indicate a severe El Niño. When ENSO 1.2 reaches these extreme levels, it is also a forecast of impending catastrophic rainfall in Piura during the months of February to April. Thus, payouts can be made in January in time to be applied towards loss prevention measures. In the past two extreme events of 1982-8 and 1997-98, rainfall amounts were in the range of 40 times normal for the early months of the year.

By making payment *prior* to extreme flooding this new insurance can enhance risk coping and adaptation for a wide range of stakeholders who face catastrophic flooding events and directly facilitate investment in loss prevention measures before El Niño-related flooding occurs. A large part of this UNDP project involves helping stakeholders understand how they can use the early payments to ease the problems and implement longer-term adaptation strategies.

Scope of Activities

This project builds upon previous GlobalAgRisk involvement in Peru and aims to develop new applications of El Niño Insurance in Piura that can be integrated into the risk management planning for two main categories of stakeholders: rural households, and local and regional government. To this end, the project is centered on the following major activities:

² While UNDP is supporting the adaptation and risk coping work, the product development work is supported by the Bill and Melinda Gates Foundation via a grant to GlobalAgRisk.

1. Increasing stakeholders' awareness and understanding of how El Niño Insurance can complement and strengthen broader strategies for managing El Niño and other climate risks;
2. Working with producer groups and water user associations to conceptualize and develop risk management strategies that involve adaptation to manage the risk of El Niño;
3. Developing a bundled El Niño Insurance product that helps households and local groups gain greater access to financial services; and
4. Increasing the capacity of local and regional government to use El Niño Insurance for risk coping and adaptation.

Project Accomplishments

Significant outcomes of this project to date include:

- A foundation has been established for regional government to use this unique form of insurance to support emergency response and the protection and rehabilitation of critical infrastructure; The German government (GIZ) plans to follow these efforts in the next three years;
- Producer associations have developed a vision for how El Niño Insurance can enhance the continuity of their services and support their members amid El Niño risk; and
- A foundation has been developed for loan-linked insurance products that could enhance the financial services of small holders. Greater access to financial services should both improve household resiliency and facilitate adaptation to this major climatic risk.

The initial phase of the project focused strongly on educational efforts with a range of stakeholders representing regional government and rural households, building an awareness of their exposure to El Niño and other climate risks. Educational workshops were followed by more intensive capacity building workshops with a subset of stakeholders, guiding them through risk assessment exercises and an evaluation of the benefits of using insurance to reduce their financial exposure to severe weather risk. These exercises culminated in the development of *ex ante* risk management guides that conceptualized specific strategies for both short-term risk coping and longer-term adaptation to weather risk. Each stakeholder has different constraints and benefits to using El Niño Insurance and through these educational efforts, stakeholders can better identify how the insurance could add value to risk management strategies already available to them. For example, one-on-one work was conducted with two bodies of the regional government (Civil Defense and the Chira-Piura Irrigation Project) that face direct exposure from El Niño. Access to contingent financing from El Niño Insurance could ease the severe financing constraints that currently limit their ability to enact preventive measures and disaster response.

Project activities for 2011 continue to focus on developing a strategy for developing and implementing the loan-linked El Niño Insurance, which includes plans for product development, recommendations for partner-agent relationships, and consumer education material for MFIs and producer groups. Under a parallel project supported by the Bill and Melinda Gates Foundation a relatively strong Peruvian MFI, recently expressed great interest in insuring their own business interruption with El Niño Insurance using a three-year contract, in addition to advancing the loan-linked insurance product to offer to their clients in the northern regions under the UNDP project. This is an encouraging development for both applications of El Niño insurance. As a household-level product, the insurance will be sold to individual members of farmer associations and water user groups via the local insurance partner in the next sales season.