

Common Format for Project/Program Concept Note for the Use of Resources from the PPCR Competitive Set-Aside (Round II)

1. Country/Region:	BOLIVIA	2. CIF Project ID#:	
3. Project/Program Title:	Financial risk management for climate resilience in the agriculture sector		
4. Date of Endorsement of the Investment Plan:	November 2011		
5. Funding Request (in million USD equivalent):	<i>Non-Grant (loan):</i> US\$10 million		
6. Implementing MDB(s):	Inter-American Development Bank	<input type="checkbox"/> Private sector arm <input checked="" type="checkbox"/> Public sector arm	
7. Executing Agency:	National Institute for Agriculture Insurance (Ministry of Rural Development and Land)		
8. MDB Focal Point and Project/Program Task Team Leader (TTL):	<i>Headquarters- Focal Point:</i> Alfred Grunwaldt	<i>TTL:</i> Juan Jose Durante	

I. Project/Program Description

The proposed project seeks to strengthen and expand the implementation of a catastrophic insurance scheme for small farmers in the poorest municipalities of Bolivia by financing the creation of a Stop Loss Fund that will cover a portion of the losses of the insurance scheme.

The project's objectives are:

- To strengthen climate risk management of agricultural producers in Bolivia by providing better access to insurance.
- To reduce the impact of climate change in the productivity of the agriculture sector by promoting climate change adaptation of the agriculture sector.
- To protect food security by providing insurance coverage to strategic crops in the country.
- To contribute to poverty reduction in the country by reducing the economic impacts of extreme weather events in the more vulnerable population.

The project objectives are aligned with the country's adaptation priorities identified in the PPCR's Strategic Program for Climate Resilience in Bolivia. It focuses in particular, on food security, one of the five sectors considered the most vulnerable to climate change in the country. The implementation of agricultural insurance is being carried out as part of an integrated climate change adaptation strategy of the Bolivian agricultural sector.

The expected outcomes of the project are:

- Increased resilience of agricultural productivity and improved food security in the poorest municipalities of Bolivia by enhancing access to climate risk insurance.

- Local capacities on the use of financial response mechanisms for climate resilience in the agricultural sector strengthened by facilitating the expansion of the local insurance market into climate risk insurance.
- Private insurance sector participation in climate risk management solutions for the agricultural sector.

The project is designed to operate as a public-private partnership. To serve the needs of the agriculture sector, the government provides the means and skills that the local private insurance market lacks; such as the technical capability for analyzing and measuring climate risks affecting the sector and the operational platform and distribution channels to reach all potential beneficiaries, as well as premium subsidies to the micro farmers to ensure affordable access to the coverage. Properly engaged, private/public participation can create an environment more conducive to agriculture insurance growth by designing risk management strategies that articulate the distinctive but complementary roles between the public sector and the private insurance market. Government efforts in improving rural financial infrastructures and weather data collection, for example, can also facilitate insurers' access to potential clients and support their underwriting activities.

The IDB's role would be to accompany the implementation of the proposed project with a comprehensive technical assistance package of approximately US\$1 million. These grant resources will finance: (i) support activities for the creation of the Stop Loss Fund; (ii) activities to strengthen the institutional capacity of the National Institute for Agricultural Insurance (INSA, by its Spanish acronym) -the public entity responsible for the design and implementation of the agricultural insurance-; (iii) the development of other innovative solutions to further reduce the costs of insurance premiums -such as parametric insurance policies-; and (iv) other activities necessary for the successful deployment of the project under consideration, including those related to the availability of historical meteorological information and crop yields. As part of these efforts, the IDB has already financed a study, carried out by the Private Bolivian University (UPB, by its Spanish acronym) along with INSA, to design a parametric insurance policy for wheat and maize in the Municipality of Anzaldo in Cochabamba, Bolivia.

Moreover, the IDB technical assistance would include a component focused in other aspects of climate change adaptation in the agricultural sector, such as the identification of the effects of climate change on crop yields in the agricultural zones covered by SAMEP and the design of strategic plans for mitigating these impacts in the identified areas.

II. Context and market

Context

Bolivia is one of the countries most vulnerable to climate change in Latin America.¹ The frequency and intensity of extreme weather events in the country have increased significantly during the last decades, and the impact of these events is particularly strong on the low income rural population whose principal economic activity is agriculture.

¹ Global Climate Risk Index 2011.

Vulnerable rural populations are mostly subsistence farmers cultivating with ancestral farming techniques which makes them highly vulnerable to the impact of climate change. Since they rely on traditional farming calendars, these producers depend on predictable weather, adequate temperatures and precipitation for their crops in order to secure their food supply. Particularly farmers in lower-income rural communities are being more affected due to their limited capacity to make investments in technologies that could increase their crop yields and improve the efficiency of their farming practices.

The Government of Bolivia is committed to the development of an insurance program that allows farmers to cope with losses caused by extreme weather events. As a clear expression of this commitment, in 2011 the government approved the Communal Agricultural Production Revolution Law 144, establishing the “Pachamama” Agricultural Insurance Program (PAIP) and creating INSA as an autarkic entity under public custody of the Ministry of Rural Development and Land.

The nationwide implementation of PAIP comprises two main phases (see Table 1). The first phase involves the implementation of the “Agricultural Insurance for Municipalities with Higher Levels of Extreme Poverty” (SAMEP, by its Spanish acronym), currently in pilot stage. The SAMEP was conceived as a public-private scheme in which the government is responsible for distribution and administration activities as well as for risk-sharing and financing; and the local insurers provide the underwriting of the risks.

The second phase of PAIP, currently in design stage, consists of the development and implementation of commercial agricultural insurance products for small and medium-sized farmers that will be implemented mainly through private insurance companies.

This project proposal focuses on the institutional and financial strengthening of SAMEP in order to ensure its operational and financial sustainability in the long term.

Table 1. Implementation of “Pachamama” Agricultural Insurance Program (PAIP)

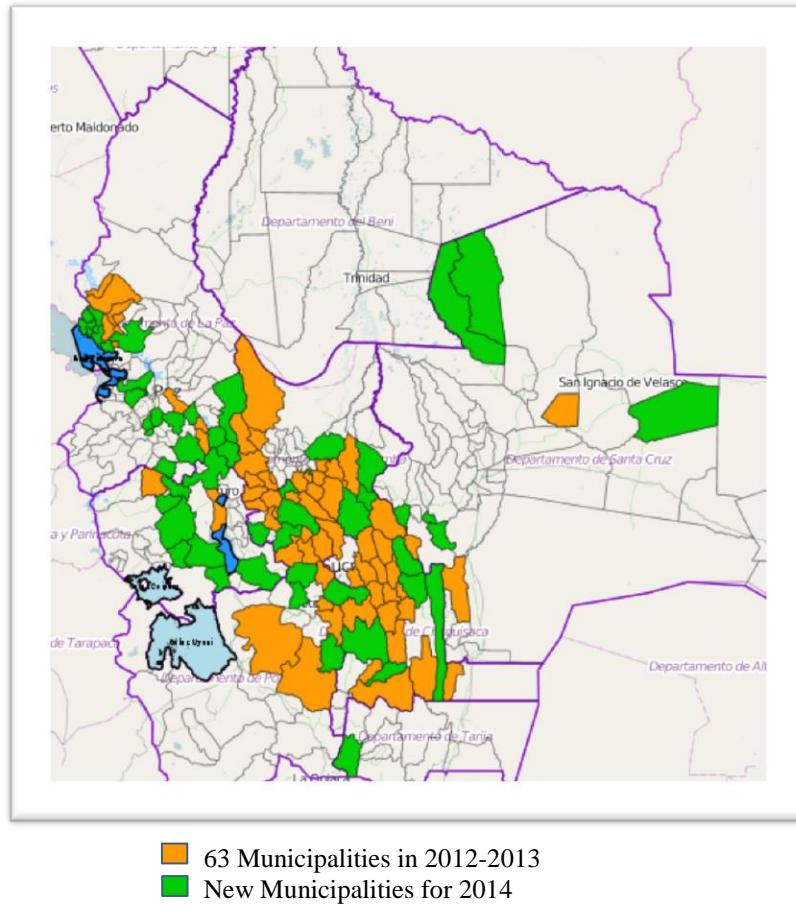
	Risk Tool	Insured	Risk absorption	Risk sharing
Phase I	Microinsurance	Subsistence farmers	Government budget Private insurers	Public and private
Phase II	Commercial insurance	Small- and medium-sized farmers	Private insurers	Private

The microinsurance provided by SAMEP is a multi-peril protection² for small growers (with up to three hectares of cultivated land) in selected municipalities with the highest levels of extreme poverty in the country (see Map 1 below). The crops covered have been strategically prioritized according to their importance to the country’s food security. They

² Since crops can be destroyed by different natural hazards at any time between germination and harvesting, SAMEP offers multi-peril coverage for farmers including flood, drought, hail and frost.

include wheat, maize, potatoes, barley, oats, beans and quinoa. In its first year of implementation (2012-2013) the SAMEP program has shown positive results: 57,000 farmers registered in 63 extremely impoverished municipalities, covering 91,000 hectares. During this first agricultural campaign, around 8,000 hectares (about 10% of the covered farmer's plots) were affected by extreme weather events and resulted in claim payments of USD 1.1 million.

Map 1. Municipalities with high levels of extreme poverty participating in SAMEP



Currently, the Bolivian government is absorbing all the risks of the insurance policies issued by SAMEP. Although private insurance companies have expressed their interest in participating in this agricultural insurance scheme, they require appropriate public incentives to diminish their risks since this is a new segment in the local market and local insurers lack the technical capabilities to properly analyze the risks the agriculture sector is exposed to. Furthermore, continuing with this level of risk retention by the public sector could compromise the expansion and sustainability of the program in the medium/long term, as the potential financial impact of agricultural risks could increase substantially and the fiscal position of the country may vary adversely in the future.

Catastrophic agricultural insurance, such as SAMEP, is of paramount importance for low-income rural population because their entire livelihood could be compromised when an extreme adverse weather event occurs and affects their productions. They lack savings to sustain their families and replant their crops for the following season. Without appropriate risk management instruments, it is almost impossible for them to thrive and escape the poverty cycle.³

Market

The insurance market in Bolivia is characterized by: i) low insurance penetration compared to other Latin American countries, despite increasing potential demand; ii) high solvency and profitability of the insurance companies; iii) high market concentration; the five biggest financial conglomerates of the country hold over 80% of market share, both of life and property and casualty insurance (non-life insurance). The small number of suppliers in the market has led to specialization in certain types of policies, which resulted in proper risk management practices, but the lack of active competition has discouraged innovation; and iv) moreover, as a consequence of the former, insurance coverage depth is low, with a high concentration in traditional life insurance policies, mortgage insurance and mandatory insurance for traffic accidents. Many of the challenges preventing more progress in the depth and dynamism of the Bolivian market could be overcome with measures to improve operational efficiency and cost reductions and to encourage financial innovation, product diversification and geographic expansion.

Regarding the development of agricultural insurance market, it should be mentioned that, in spite of the economic, labor and social relevance of the agricultural sector in Bolivia, this market is still practically nonexistent. In the past few years, there have been some successful experiments in designing mechanisms for this type of insurance. For instance, private initiatives to provide coverage for fruits and potato crops were led by the Profin Foundation (supported by the Swiss cooperation) and the present SAMEP project, which is the first step towards the consolidation of PAIP.

Among the challenges for the implementation of private insurance mechanisms to meet the needs of the agriculture sector that are going to be tackled by this project, are the creation of incentives to facilitate the participation of domestic insurers, the access to the international reinsurance markets and, through the IDB's technical assistance program, the generation of reliable meteorological and agricultural production information at the national and local level.

There is a great willingness on the public and private sector to boost the development of the insurance market in Bolivia, and particularly to provide a financial risk management solution for the agriculture sector. Public-private partnerships, as the one being considered in this proposal, are seen as a major course of action to start the process of development of a comprehensive agricultural insurance program in the country.

³ About 66% of rural population in Bolivia lives under the poverty line, which is living with less than US\$2 per person per day.

III. Project description and Innovation

a. Project Description

The project will finance the establishment of a stop loss fund (SLF) that will support the expansion of the PAIP, starting with the SAMEP pilot which targets municipalities under the extreme poverty line⁴.

The fund resources would cover a portion of the eventual losses (second loss), leaving the first loss to participating local insurers who would transfer the tail risk and losses to the international reinsurance market.

The creation of the SLF will contribute to strengthen the long term sustainability of the insurance program, improve its financial efficiency and facilitate the participation of the local insurance market and international reinsurers.

b. Innovation

The project is innovative in the country and in the insurance sector in several ways: i) a new climate risk management product is introduced to the local insurance market where no insurance policies, nor any other financial instrument, are available to the majority of potential beneficiaries; ii) new distribution channels are used to reach the target population living in remote areas thanks to the involvement of municipal and community authorities in the dissemination, registration and payment process of the program; and iii) new financial instruments are being developed in order to expand the scope of the agricultural insurance (both geographic expansion and crops coverage) in an efficient way through the design of parametric insurance policies.

c. Technology, Product, and/or Business Model

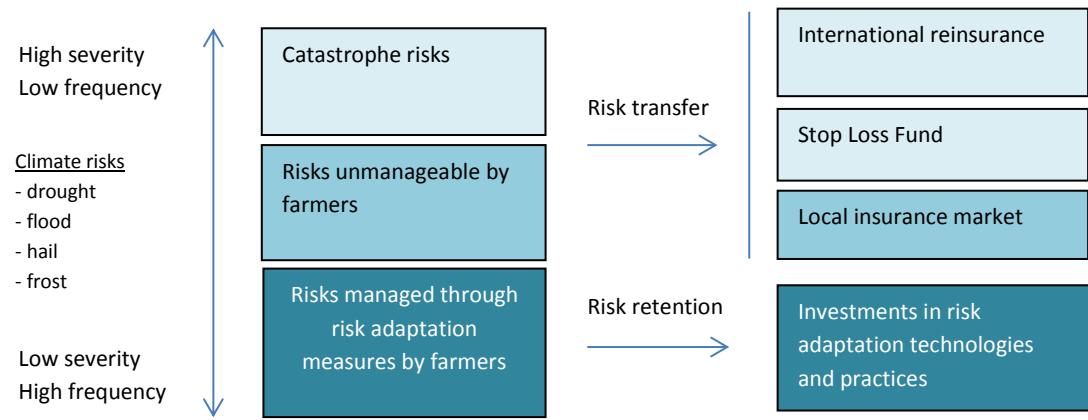
Agriculture insurance provides a channel for ex ante risk sharing and transfer that alleviates ex post public disaster assistance. Also, while its primary purpose is to provide security against production risks, an efficient agriculture insurance market can also act as a long-term catalyst for beneficial change in the industry and society. Insurance captures the inherent risk of agriculture activities as a regular business expense, while actuarial prices that take risk assessments into account are a strong incentive for the agriculture sector to adopt best-practice standards for mitigating and avoiding risk. The portion of risks that cannot be reduced or mitigated can then be transferred to insurance markets. (See Graph 1).

In the proposed project, agricultural insurance is part of an integrated approach for climate change adaptation of the agriculture sector. This articulation of adaptation actions in the agriculture sector through insurance will significantly reduce the negative impacts of climate change on the livelihoods of the poorest communities

⁴ Municipalities where people live with U\$1 per person per day.

while acting in the medium and long term as an incentive to reduce risk and vulnerability of the sector, and significantly reduce the cost of risk premiums.

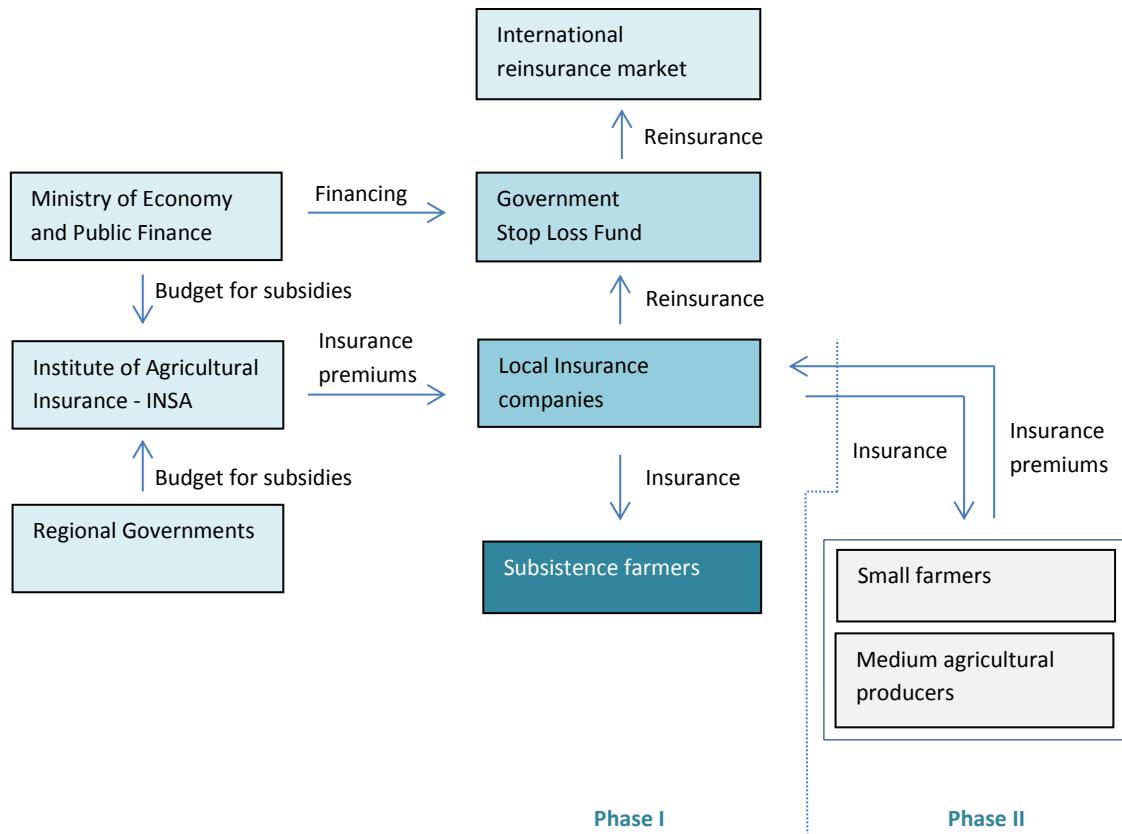
Graph 1. Project's Business Model Scheme



While in the first year of implementation of SAMEP, INSA was in charge of insurance policy design, dissemination of the pilot, registration of beneficiaries, evaluation of losses and management of payments and claims, with the creation of the Stop Loss Fund, local insurance companies will participate in the scheme by taking up part of the financial risks of the policy coverage, and the government (through INSA) will continue supporting insurance policy design and administration of subsidies.

The SLF would retain a portion of the risks of the SAMEP pilot, as illustrated in Graph 2, and could as well benefit the later implementation of the second phase of the PAIP.

Graph 2. Operational Flow of the Stop Loss Fund



- d. **Sustainability of intended results:** The project would contribute to transfer knowledge to the local insurance sector, as well as to the national entity in charge of the implementation and management of agricultural insurance in the country. Furthermore, the preliminary financial projections of the Stop Loss Fund show that the establishment of the fund would help to reduce the costs associated with the implementation of the SAMEP, as well as to facilitate the expansion of the Pachamama Agricultural Insurance Program coverage at the national level as it is envisioned by the local authorities. It is worth noting that, according to these projections, the Fund may achieve all of its objectives while maintaining high levels of solvency, liquidity and profitability, thus contributing to the financial sustainability of the overall Pachamama Program in the medium and long term.

IV. Inclusivity

The project will benefit very small agricultural producers (with up to three hectares of eligible crops) from the poorest municipalities of the country which are prioritized by the national government based on the level of extreme poverty therein. These municipalities are remotely located and more vulnerable to extreme weather events such as flood, drought, hail and freeze; events that are expected to grow more frequent and severe due to increasing

climate change impacts on the region. Gender considerations have also been contemplated in the outreach strategy of the program and registration of beneficiaries.

V. Financial Plan (Indicative)

The proposed budget provides an estimation of the amount required to finance the establishment of the Stop Loss Fund, as well as the grant resources that will support its design and implementation and the institutional strengthening of INSA. Other funding sources for the proposed project are being explored.

Source of Funding	Amount (USD million)	Percentage (%)
PPCR (loan)	10.0	90%
IDB (grants)	1.0	10%
TOTAL	11.0	100%

VI. Expected Results and Indicators

Indicator(s)	Expected Result(s)
<i>Country SPCR Outcome 1- Institutional Framework Improved</i>	
<i>Project Development Outcome 1 – Local capacities on the use of financial mechanisms for climate resilience in the agricultural sector strengthened</i>	
<i>Local insurance market expansion into climate risk insurance with private sector participation</i>	
Number of agricultural insurance instruments offered in the market	3
Increase (%) in agricultural insurance policies issued with support of the Stop Loss Fund	300%
Number of local insurance companies that issue policies backed by the Stop Loss Fund	5
<i>Country SPCR Outcome 2- Adaptive Capacities Strengthened</i>	
<i>Project Development Outcome 2 - Increased resilience of agricultural productivity and improved food security in the poorest municipalities of Bolivia</i>	
<i>Agriculture sector with improved climate risk insurance</i>	
% of national cropped area insured	10%
% of rural municipalities covered	More than 50%
% of crops vital for food security insured	
<i>Project Development Output</i>	
<i>Small farmers in the poorest regions of the country have access to climate risk coverage through agricultural insurance policies</i>	
Small farmers covered*	200.000
Hectares covered	275.000
Crops covered	8

* Additional information of the beneficiaries will be collected, particularly about % of women and of farmers under the extreme poverty line.

VII. Implementation Arrangements and Feasibility

The Borrower for the proposed operation would be the Government of Bolivia (GOB). The Stop Loss Fund would be set up as a Trust, where the Trustor (Grantor) and Beneficiary would be the GOB. INSA would be the Trustee (Fiduciary) responsible for the technical, administrative and financial management of the Trust. The IDB and the INSA have run preliminary financial projections that demonstrate the feasibility of the Stop Loss Fund, and the recent experience of the INSA in implementing the pilot insurance program SAMEP has proven the effectiveness of the insurance scheme and the viability of reaching remote beneficiaries.

VIII. Potential Risks and Mitigation Measures

Financial risks. An extreme weather event may occur in a given year and the liquidity of the Stop Loss Fund is not enough to cover the payouts to affected policyholders, and thus the sustainability of the insurance program is compromised. This risk is mitigated by sound levels of technical reserves that the Fund will be required to maintain, as well as the possibility to adjust the level of losses it will cover on a yearly basis which would allow to recover liquidity levels after a year with an extraordinary level of losses.