



## Summary of project proposal for:

### Where the Rains Falls (WtRF) – Community Based Adaptation Project

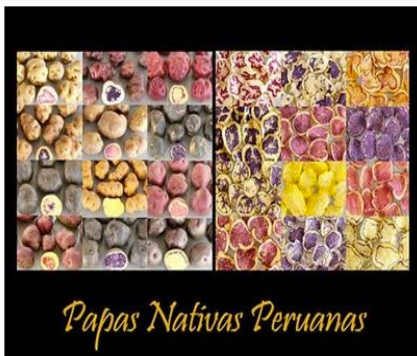
#### PROMOTION OF TRADITIONAL CROPS IN THE HIGH ANDES IN PERU TO INCREASE THE RESILIENCE OF THE MOST VULNERABLE PEOPLE IN THE FACE OF CLIMATE CHANGE

#### Background:

Climate change in the Shullcas region will take different forms, including more frequent freezes and faster glacial retreat, with growing water scarcity as one result. Indeed, according to projections, the Huaytapallana Glacier which provides 40% of the sub-basin water (60% is from rainfall) will disappear by 2030, threatening water availability and increasing the vulnerability of the poorest who have no other opportunities to diversify their activities and reduce risk. These changes, added to population growth and pressure on water resources, are expected to become a major problem in the years to come.



One of the principal solutions suggested in the PRAA reports (Project on the Accelerated retreat of the glacier) to improve the resilience of those most vulnerable to climate change is: **“to prioritize strategies designed to elevate water resource and agricultural adaptation, incorporating techniques to preserve water and for the rational soil and land use.”**



A study made by the NGO Soluciones Prácticas-ITDG, Raymundo Gutierrez (2008) documents the potential of native potatoes to increase resilience to climate change in the high Andes region. Based on experiences documented by native potato producers in Ancash and Cusco, Gutierrez concludes that a significant portion of the native potato varieties available in Peru have three specific physiological and phenological characteristics that make them better adapted to the effects of climate change. Firstly, prior studies by Gutiérrez and Shafleitner (2007) show that an important proportion of a sampling of 25 species of native potatoes had a **greater capacity for the absorption of ground water**, making them better adapted to conditions of the dry season in agriculture. Secondly the ITDG (2008) study shows that

**21% of the native potato crops studied have a greater tolerance to frost, snows and hail than commercial crops.** And third, the Gutierrez study (2008) shows that **cultural practices such as the use of bio-indicators, crop association, and rotations can control pests and illnesses that affect the local varieties of potato.** High Andes grains are also noteworthy for their adaptability to different weather conditions, and are particularly resistant to frosts and droughts. Quinoa resists up to 3 months of drought at the beginning of its cycle. To make this part of its growth, its stalk becomes fibrous and its roots strengthen. When the rains return it recovers its physiological activity. Quinoa can also resist frosts to -4°C, or even - 6°C thanks to low water content and different crop heights (taller plants protect the smaller plants). This information validates the focus of the proposal, but complementary activities are also essential to theoretically and practically validate the selection of the specific varieties of high Andean crops that will be recovered.

Level of food and nutrition insecurity in the area is high, but traditional cereals can also help improve this situation. In addition to being better adapted to Climate Change impacts, they have attractive nutritional characteristics. For example quinoa, cañihua and kiwicha all contain twice the protein of rice, wheat or oats and eight essential amino acids for human nutrition. Quinoa also contains a higher amount of essential minerals, lipids, antioxidants and vitamins, and is gluten-free. A portion of the crops produced can be the object of greater self-consumption, with the resulting improvement in nutrition levels and food security.

**Overall Objective:** To contribute to food security and to increase the resilience of the most vulnerable populations to the impacts of climate change.

**Specific Objective:** To recover high Andean crops and promote sustainable agriculture in order to increase the resilience of the most vulnerable to climate change.

Expected Results	Some Activities
<p><b>Result 1:</b> Knowledge (technical and traditional) on high Andean crops that are adapted to climate change has increased and led to facilitating greater access to agro-biodiversity.</p> <p><b>Result 2:</b> Farmers, and in particular women producers of the Shullcas River sub-basin, implement agricultural practices adapted to the high Andes production systems.</p> <p><b>Result 3:</b> The organization of agricultural producers place a growing part of their crop production on regional and national markets.</p>	<ul style="list-style-type: none"> <li>- Select high Andean crops that are adapted to climate change;</li> <li>- Gather perceptions on the local knowledge held by producers;</li> <li>- In situ validation of the greatest adaptation capacities of the crops selected with the implementation of test parcels;</li> <li>- Select and identify agricultural producers and production areas to be benefitted by the project;</li> <li>- Make one Agricultural production plan per village ;</li> <li>- Capacity building of producers in managing the selected crops (cross visit using farmer to farmer training and technical training, sustainable management...);</li> <li>- Organize the inputs necessary for farming and control of pests and/or diseases;</li> <li>- Preparation and distribution of a market study for the crops selected;</li> <li>- Formation of small producer organizations for collection and marketing;</li> <li>- Public and private marketing alliances;</li> <li>- Regional and National Fairs organized with regional and local governments of Junín;</li> <li>- Create communications materials for project beneficiaries and outside broadcasting.</li> </ul>

**Project Location:** 8 villages of the Shullcas River Sub-basin, Huancayo, Junín, Peru

**Partners:** The project will work with technical partners: INIA (National Agrarian Research Institute) and AGRORURAL (Project for productive rural agrarian development); and local authorities: Junin Regional Government, Municipality of Huancayo and el Tambo and Provincial Municipality of Huancayo.

**Beneficiaries:** 300 vulnerable producers of which 25% will be women and their family (around 1200 people based on a household with 4 members). Indirect beneficiaries will be the population of the Shullcas River sub-basin that will benefit from a reduced pressure on the natural resources (land and water): 13,970 people

**Starting date :** October 2012

**Duration of project :** 24 months

**Budget:** 180 000 €

**Donors :** AXA



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