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## **Sowing and Harvesting Water**

Submitted by: Peru



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### **SOWING AND HARVESTING WATER**

# IMPROVING THE AVAILABILITY, ACCES AND USE OF WATER FOR FAMILY FARMING IN HIGH ANDEAN AND FOREST WATERSHEDS

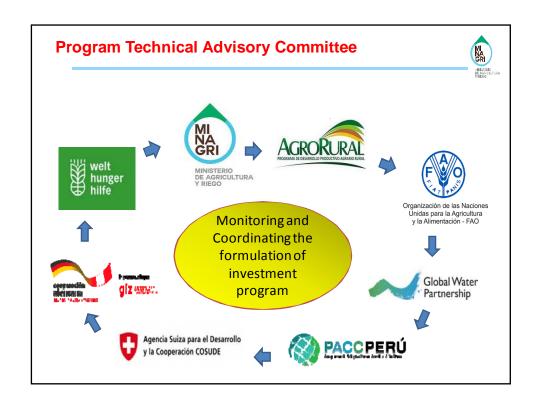
Iquitos, october 08th 2016

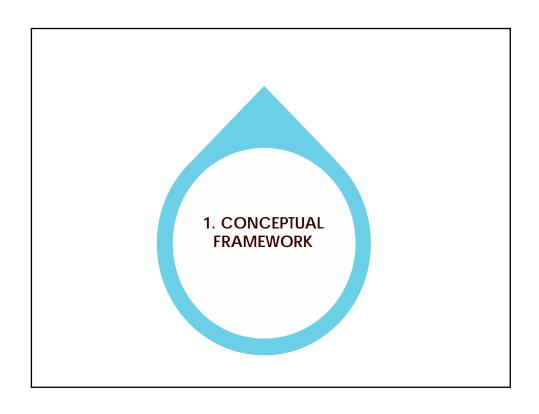
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#### CONTENT



- 1. Framework
- 2. Concept of the Investment Public Program
- 3. Components
- 4. Evaluation





#### **CONCEPTUAL FRAMEWORK**

#### Planting and harvesting Water

Interventions in territorial spaces that facilitate or improve the interception and retencion of rainwater, its storage and regulation within the soil, subsoil and groundwater as well as surface bodies, for using in a particular place and time.



Huacrahuacho, Cuzco, Construcción de qocha

Improving availability and water supplies for family farming with a focus on territorial measures agreements among multiple actors within a productive hydric territory of a watershed

- Andenes (Andean Platforms)
- Infiltration trenches
- · Vegetative cover
- Q' ochas
- Reforestation
- Manegement of Grasslands
- Wetlands Protection

Green Infrastructure

- Storage Infrastructure
- Infrastructure Protection measures
- Measures to reduce losses of soils
- More efficient irrigation methods

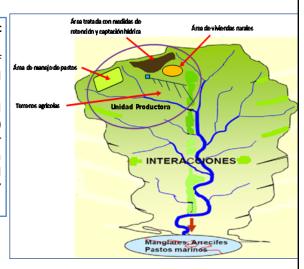
Gray Infrastructure

#### **CONCEPTUAL FRAMEWORK**

## Territorial Space Hydric Productive

Space (or combination of spaces) that has good potencial to "produce water

(interception, retention and regulation of water resources) and also hosts areas with water demand by the local population and particulary for agricultural and livestock production" (Hendriks, J., 2016)



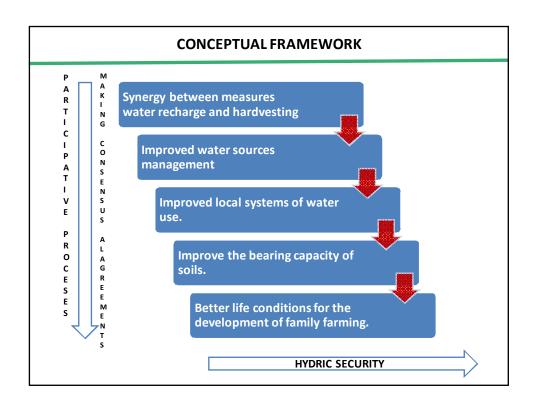
Fuente: Términos de Referencia para la elaboración del Perfil del Programa de Inversión "Mejoramiento de la disponibilidad, acceso y uso del agua para la agricultura familiar en microcuencas andinas y de selva alta"

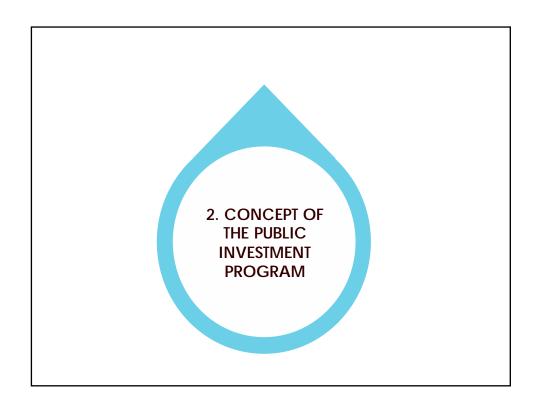
#### **CONCEPTUAL FRAMEWORK**



#### **Familiy Farming**

Way of Life and Production, managed by a Family, Whose members are the main workforce. It includes activities such as agricultural and livestock production, forest management, rural industry, artisanal fishing, aquaculture and beekeeping, among other activities . (National Strategy of Family Agriculture 2015-2021. MINAGRI, 2015).





#### **PROBLEMATIC**

Decreased availability, limited access and not optimized use of water for family farming in water productive territorial areas in the high Andean and jungle watersheds.

Productive space with limited territorial water assembly due to degradation of natural resources accentuated by climate change

Local actors with limited capabilities in management and production of water territorial spaces

institutional planning disjointed, fragmented and lack of proper management of water territorial productive spaces

#### **OBJETIVE OF THE PROGRAM**

Increased availability, access and optimized use of water for family farming in water productive territorial areas in high Andean and jungle watersheds



Through the implementation of efficient rainfall water retention and storage both on the surface and in the soil (natural reservoir) interventions.

#### **PROGRAM COMPONENTS**

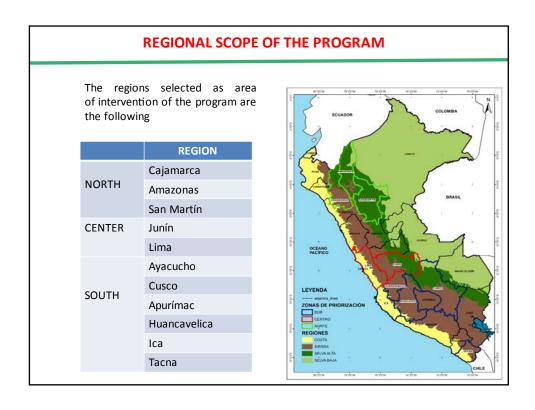
To achieve the objetive the Public Investment Program execution raises 03 components:

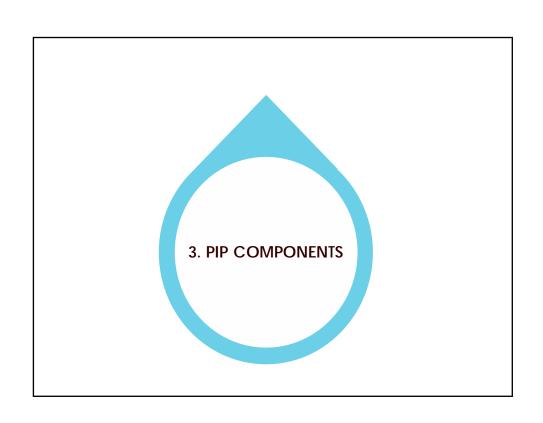
PRODUCTIVE WATER CONDITIONING IN THE HYDRIC PRODUCTIVE TERRITORY TERRITORY LOCAL (STRUCTURAL MEASURES)

MANAGEMENT AND TECHNICAL ASSISTANCE FOR HYDRIC PRODUCTIVE TERRITORY (NO STRUCTURAL MEASURES)

INSTITUCIONAL CAPACITY BUILDING OF LOCAL WATER GOVERNANCE







#### **TECHNICAL ANALYSYS OF THE COMPONENTS**

1. CONDITIONING AND PROTECTION OF WATER TERRITORY PRODUCTION (structural measures)

This component considers the execution-oriented implementation of green infrastructure and gray for productive water conditioning territory, as an adaptation measure to climate change, in an area of 12,000 has.

Nro	Soil Storage	Surface Storage
1	Amunas conditioning	Construction of microreservorios
2	Qochas construction	Construction of irrigation channels adduction
3	Terracing absorption construction	
4	Construction of slow formation terraces	
5	Construction of infiltration trenches	
6	Grassland management	
7	Reforestation	
8	Bofedales protection	
9	Implementation of agroforestry systems	

#### **TECHNICAL ANALYSIS OF THE COMPONENTS**



Condebamba, Cajabamba, Cajamarca- Microreservorios

Moyobamba, San Martín -Reforestation



#### **TECHNICAL ANALYSIS OF THE COMPONENTS**



Quispillacta, Chuschi, Ayacucho-Qochas

Ccatcca, Quispicanchi, Cuzco - Infiltration trenches



#### **TECHNICAL ANALYSIS OF THE COMPONENTS**



Chaclla, Huarochirí, Lima – Grassland management

Pillao, Matao-bofedales protection



#### **TECHNICAL ANALYSIS OF THE COMPONENTS**

## 2. MANAGEMENT AND TECHNICAL ASSISTANCE FOR WATER MANAGEMENT PRODUCTIVE TERRITORIES (NO STRUCTURAL MEASURES)

This component considers the implementation of actions and aimed at strengthening and updating of knowledge for productive water conditioning territory activities, which consists of the following:

ACTIVITY	DESCRIPTION
Technical Assistance	Oriented to beneficiaries for implementation of structural measures. \\
Training	Program of courses fot beneficiaries and profesional staff.
External expiriences	Exchange of national experiences on sowing and harvesting Water (Internships)
Evaluation	Research on Impacts and Effects of Structural Measures of the watershed (Installation and equipment stations and control areas).
Participatory planning	Participatory workshops with beneficiary population. Identification and programming implementation of structural measures.
Baseline	Studies of the Watershed.

#### **TECHNICAL ANALYSIS OF THE COMPONENTS**

## 3. INSTITUTIONAL CAPACITY BUILDING AND WATER GOVERNANCE

Purpose

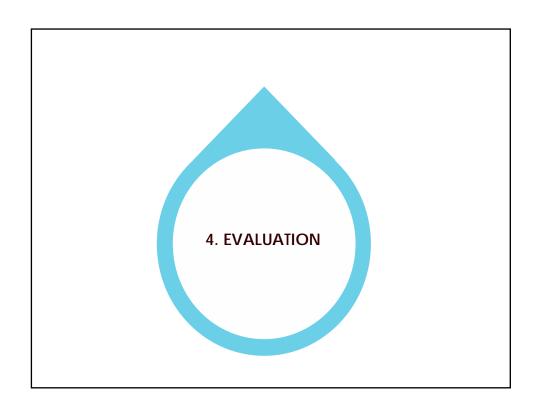
• Contribute to increasing the environmental sustainability of water management for planning, maintenance, sustainable use and equitable of water.

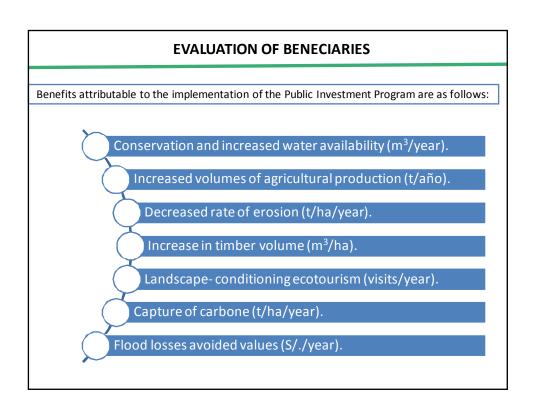
Sub omponents

- Governance and institutions for local watershed management
- Development of technical capabilities and management of water resources

Focus

- Promote governance of water resources involving key stakeholders at the local, regional and national levels based on trust, participation and social control.
- Improve operational efficiency of water systems under an integrated watershed management approach
- Channeling best local sustainable management of natural resource management in the context of a participatory and decisive governance









## MUCHAS GRACIAS THANK YOU