



CEDRIG  
Light

## Horti-Sempre Phase 2, Nacala Corridor in Northern Mozambique

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CEDRIG es una herramienta desarrollada y ofrecida por



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Agencia Suiza para el Desarrollo  
y la Cooperación COSUDE

## ● Resumen

### Información general

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**Objetivo general** The overall objective of Horti-Sempre is to increase the annual net income of 25,000 smallholders by 30% against baseline by supporting the growth of the horticultural sector in Northern Mozambique in view of its proven importance as income creator.

**País** Mozambique

**Presupuesto** 6'500'000 CHF

**Duración** 01/2017 - 12/2020 (48 months)

### Resumen

**Descripción** The overall objective of the Horti-Sempre Phase 2 Project is to increase smallholder's annual net income by 30% against baseline by supporting the growth of the horticultural sector in Northern Mozambique in view of its proven importance as income creator. To fulfil its mission and reach the overall objective, Swisscontact proposes for Horti-sempre Phase 2 a logic of intervention based on three main Outcomes that unfold around three main project components namely (1) inputs and practices, (2) irrigation and (3) sector competitiveness. OUTCOME No 1: Productivity of horticultural smallholders in the Nacala Corridor in Northern Mozambique increased OUTCOME No 2: Horticultural smallholders in the Nacala Corridor in Northern Mozambique increased their area under irrigation OUTCOME No 3: Market responsiveness and competitiveness of the horti-cultural sector in Northern Mozambique is increased The three components will be complemented with two transversal topics: Women's Economic Empowerment (WEE) throughout the different interventions and through special women targeted interventions and Access to existing funding options. Based on experience from Phase 1, Swisscontact believes that Horti-Sempre Phase 2 has the potential to reach 10'000 semi-commercial and 15'000 subsistence male and female smallholders in Northern Mozambique increasing their income by up to 30%.

### Sectores de Intervención

Agricultura  
Desarrollo rural

Seguridad alimentaria  
Gestión del agua

## Documentos

MER\_Climate Change Profile (pdf, 1.2 MB)

FANRPAN\_Fact Sheet Moz (pdf, 219.89 KB)

WORLD BANK\_Climate Change Profile Moz (pdf, 2.61 MB)

Presentation\_Climate Data\_Moz (pdf, 1.01 MB)

## Imágenes



Training on basic irrigation solutions

Training on basic irrigation solutions



Training on agricultural practices

Training on agricultural practices



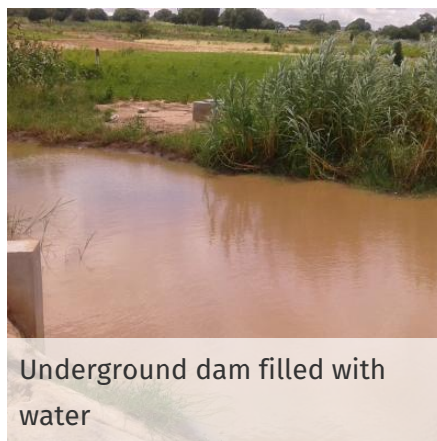
Construction of underground dam

Construction of underground dam



Protected horticulture cultivation

Protected horticulture cultivation



Underground dam filled with water

Underground dam filled with water



Basic irrigation solution in use (hip-pump)

Basic irrigation solution in use (hip-pump)

## ○ Perspectiva del riesgo

### Amenazas que se producen debido a la degradación del medioambiente

Nombre de la amenaza **Degradación (tierra, suelo, ecosistemas, biodiversidad)**

Exposición Sí

Comentarios Soil degradation is frequently the result of poor conservation practices (no soil coverage, deep tillage, poor biodiversity) aggravated by heavy rains. Consequently, more inputs are needed resulting in a vicious circle of degradation.

Consecuencia **Key consequences are lower yields due to degraded soil and higher need of farmers to use inputs (fertilizers)**

Probabilidad  
Probable

Alcance  
Perjudicial

Importancia del riesgo  
Riesgo medio

Nombre de la amenaza **Contaminación del agua (superficiales y subterráneas)**

Exposición Sí

Comentarios Water pollution mainly in peri-urban areas due to urban water and soil contamination (e.g. from factories, waste, etc.).

Consecuencia **Key consequences are the loss in product quality, as well as potential health risks for consumers. Assessment of hazard is difficult because of limited data availability on water and soil quality.**

Probabilidad  
Probable

Alcance  
Ligeramente perjudicial

Importancia del riesgo  
Riesgo bajo

Nombre de la amenaza **Plagas y epidemias**

Exposición Sí

Comentarios Pests and epidemics occur because of poor crop rotation and lack of knowledge or availability of properly formulated defensives (pesticides, insecticides, fungicides). Pests and epidemics are occurring more frequently during the hot and rainy season compared to the cold and dry season.

## Consecuencia

**Key consequences are crop losses (sometimes failure) and that farmers avoid production in warmer and wetter months of the year**

Probabilidad  
Probable

Alcance  
Perjudicial

Importancia del riesgo  
Riesgo medio

## Amenazas naturales (hidrometeorológicas y geológicas)

## Nombre de la amenaza

Olas de calor

## Exposición

Sí

## Comentarios

According to the World Bank, the number of hot days per year increased by 25 in the last 40 years, and much of this has occurred during the southern hemisphere autumn. This corresponds to the first harvest cycle of many major grains across the country, with significant implications for agricultural pests and yields.

## Consecuencia

**Key consequences include a shortening of the growing season, crop failure (no yield) or crop losses (lower yields)**

Probabilidad  
Muy probable

Alcance  
Perjudicial

Importancia del riesgo  
Riesgo alto

## Nombre de la amenaza

Sequias

## Exposición

No está claro

## Comentarios

Since the 1960s, mean rainfall has decreased by an average of 2.5 millimeters per month (3.1%) per decade. Increased rainfall over the northern regions, highly variable conditions in the central regions, and persistent drought periods coupled with episodic floods in the south. In Northern Mozambique, seasonal droughts are occurring, meaning that rains are delayed.

## Consecuencia

**Delayed rains result in loss of seeds of rainfed crops (e.g. maize) and the need to rebuy and re-sow crops**

Probabilidad  
Probable

Alcance  
Perjudicial

Importancia del riesgo  
Riesgo medio

## Nombre de la amenaza

Tormentas, tornados y/o huracanes, vientos fuertes, tormentas de arena

## Exposición

Sí

**Comentarios** Frequency of storms has increased, but events are seasonally concentrated and farmers normally wait with sowing until the risk has decreased.

**Consecuencia**

**Destruction of basic infrastructure and crops in early stage of growth**

**Probabilidad**  
Improbable

**Alcance**  
Perjudicial

**Importancia del riesgo**  
Riesgo bajo

**Nombre de la amenaza**

**Crecidas repentinas, inundaciones**

**Exposición** Sí

**Comentarios** The proportion of days with heavy rainfall events has increased by 2.6% per decade according to the World Bank. The number of days with heavy rainfall currently amounts to ~25 per year. However, events are seasonally concentrated and farmers normally wait with sowing until this risk is lower.

**Consecuencia**

**Destruction of basic infrastructure and crops in early stage of growth, destruction of trade infrastructure (e.g. bridges and roads)**

**Probabilidad**  
Probable

**Alcance**  
Perjudicial

**Importancia del riesgo**  
Riesgo medio

**Nombre de la amenaza**

**Erratic Rains**

**Exposición** Sí

**Comentarios** Recently, rainfalls in Northern Mozambique are out of usual patterns which farmers rely on. Tendency towards delayed rainfalls.

**Consecuencia**

**It is difficult for farmers to predict the start of the rainy season. Due to a delayed start of the rainy season, the growing cycle is postponed into the hot season when it is difficult to produce horticulture. Higher risk of pests due to humidity.**

**Probabilidad**  
Muy probable

**Alcance**  
Perjudicial

**Importancia del riesgo**  
Riesgo alto

## Amenazas que se producen debido al cambio climático (y la variabilidad del clima)

**Nombre de la amenaza**

**Tendencia general al aumento o disminución de la temperatura media**

**Exposición** No

**Comentarios** Temperatures have generally increased by 0.6° C over the last forty years, with particularly pronounced increases observed during the hot season (September - March). This increase has so far not considerably affected horticulture as the vegetables are produced during the drier and cooler winter months (April - August).

**Nombre de la amenaza** Cambios de frecuencia e intensidad de los fenómenos climáticos extremos y desastres relacionados (p.ej. olas de frío y calor, inundaciones, sequías, tormentas, huracanes, ciclones)

**Exposición** No

**Comentarios** Frequency of floods is increasing in the country, but mostly in the South and Centre where Mozambique does not control the dam system on the main river (e.g. Limpopo, Save, etc.). Other events (hurricanes, cyclones, etc.) are also concentrated in the South/Centre.

**Nombre de la amenaza** Cambios en las estaciones

**Exposición** Sí

**Comentarios** A shift of seasons is observed in Northern Mozambique. Average annual rainfall has remained similar (or even slightly increased). However, the precipitation patterns have changed. More erratic and locally concentrated rainfall is observed which often results in floods and a shorter growing season.

**Consecuencia** **Shorter growing season, longer idle season (hunger period - época de fome), unpredictability of sowing time, loss of first seeds (investment), extension of growing season into warmer months, loss of 1 or more production cycles**

**Probabilidad**  
Muy probable

**Alcance**  
Perjudicial

**Importancia del riesgo**  
Riesgo alto

## ¿Evaluación detallada de riesgos necesaria?

Sí - Es necesaria una evaluación detallada de riesgos

## ● Perspectiva del impacto

### Calcule el impacto en el medioambiente

#### Área medioambiental Ecosistemas

Componente de la actividad Underground Dams

Impacto sobre el medioambiente Small-scale rainwater retention increasing soil humidity potentially changing the ecosystem; limited additional pollution due to the plastic used to build the dam

#### Área medioambiental Suelo

Componente de la actividad Inputs (Fertilizer & Pesticides)

Impacto sobre el medioambiente Use of fertilizer and pesticides by horticulture smallholders is common. However, the used amounts are very limited due to a lack of financial resources. Thus, a small negative impact on the soils can be expected. The Project only gives technical advice following a market-approach and does not directly promote and increased use of fertilizers and pesticides for the horticultural production.

### Calcule el impacto en el cambio climático

Componente de la actividad Increasing volumes and de-seasonalization of horticulture production

Impactos en el cambio climático Possibly decreasing emissions of Greenhouse Gases (GHG) due to local horticultural production and shorter transport routes. The international and inter-regional imports might decrease due to a higher availability of locally produced vegetables.

### ¿Evaluación detallada de los impactos necesaria?

No - No es necesaria una evaluación detallada de los impactos