



CEDRIG
Light

Cambodian Horticulture Project Advancing Income and Nutrition (CHAIN) phase 3

—
Moritz Krüger
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et de la coopération DDC

● Vue d'ensemble

Informations Générales

Contributors	Moritz Krüger, Swiss Agency for Development and Cooperation (SDC), Thaïlande Jacqueline Schmid, Swiss Agency for Development and Cooperation, Suisse Ali Neumann, SDC, Suisse Pedro Basabe, SDC, Thaïlande
Objectif général	Promotion of horticulture value chains in Preah Vihear, Stung Treng, Kratie and Oddar Meanchey provinces, with a strong focus on women and delivering sustainable income growth and improved household food security and resilience
Pays	Cambodge
Budget	CHF 1.900.000
Durée de l'activité	01.01.2021 - 31.12.2022

Sommaire

Description In Cambodia, more than 20 % of the rural poor suffer from food insecurity. The increasing market demand for safe vegetable and fruits provides a huge opportunity for small holder farmers and processors, in particular women to increase income and food security. The Cambodia Horticulture Advancing Income and Nutrition (CHAIN) project supports farmers in increasing sustainable production, income and resilience in four of the poorest provinces of Cambodia - Kratie, Stung Treng, Preah Vihear and Oddar Mancheay. With the particular focus on the fruits and vegetables sector, CHAIN tackles market system constraints to improve the service delivery to poor farmers households, women headed households and ethnic minorities. CHAIN will support smallholder farmers to diversify into growing fruit and vegetables through the introduction of smart horticultural techniques ,water saving , and market linkages required to generate much-needed additional income, and it will also address poor household nutrition by introducing diversification of diets.

Termes clés agriculture and food security

Secteurs d'intervention

Agriculture
Développement rural
Vegetables Production

Sécurité alimentaire
Gestion de l'eau
Marketing

Documents

Climate Change Impact Lower Mekong Basin (pdf, 3.65 Mo)

Images



Open home garden in Kratie province

Open home garden in Kratie province



Farmers group planning

Farmers group planning



Round Year vegetables production in Plastic Net

Round Year vegetables production in Plastic Net

○ Perspective des risques

Aléas dûs à la dégradation de l'environnement

Nom de l'aléa Déforestation

Exposition Oui

Commentaires Massive deforestation in Cambodia is highly likely to be the root cause of the devastating change in the observed rainfall pattern. It is caused by legal (attribution of land concession to foreign companies, building of roads in forested area, etc...) and illegal logging.

Conséquence **Alteration of hydrological cycle and micro-climate, reduced water availability**

The changed hydrological cycle has increased the frequency of both floods and droughts.

Probabilité
Très probable

Gravité
Très nuisible

Importance du risque
Risque élevé

Nom de l'aléa Nuisibles et épidémies

Exposition Oui

Commentaires locust, rats, flea beetle larvae

Conséquence **loss of income and crop production**

Invasion of flea beetle larvae (Chrysomelidae: Alticini), which leads to a severe destruction of vegetables, especially root and leaf vegetables. Occurrence increased in the past 3-4 years.

Probabilité
Probable

Gravité
Nuisible

Importance du risque
Risque moyen

Nom de l'aléa Pollution de l'eau (en surface et souterraine)

Exposition Oui

Commentaires In 2018, warm army destroyed over than 10,000 ha of corn plantation. Water pollution is concern recently in Cambodia

Conséquence **loss of fishery resources and income**

Seasonal, severe invasion of Mekong river by a fist-thick layer of algae/aquatic plants which completely disrupt the normal fishing activities. This phenomenon started recently (around 2010-2012) and is observed in its maximum extension since a couple of years only.

Probabilité
Probable

Gravité
Nuisible

Importance du risque
Risque moyen

Aléas naturels (hydro-météorologiques et géologiques)

Nom de l'aléa Vagues de chaleur

Exposition Oui

Commentaires Heat wave in 2016 destroyed many plots of vegetables farms . In 2016, People have to buy drinking water, the prices of water has almost three times increased

Conséquence **higher freshwater demand for people and livestock. The level of water in many rivers are very low**

People and animal get sick . Farmers earned less income

Probabilité
Probable

Gravité
Peu nuisible

Importance du risque
Risque faible

Conséquence **slower and reduced labour work**

Probabilité
Probable

Gravité
Peu nuisible

Importance du risque
Risque faible

Conséquence **Heatstroke in particular for elderly and children**

Probabilité
Probable

Gravité
Nuisible

Importance du risque
Risque moyen

Nom de l'aléa Sécheresses

Exposition Oui

Commentaires In 2019 and 2020, most of water ponds were dried up, water level in many river are very low in historical and ground water level are dept. Deforestation reduce groundwater recharge, and increase evaporation and water demand during dry/hot season.

Conséquence **reduced water availability**

Reduced water availability for household consumption and agriculture, particularly of paddy rice, cassava, rubber, and maize.

Probabilité
Très probable

Gravité
Nuisible

Importance du risque
Risque élevé

Conséquence

loss of crop production & income

Partially severe economic losses (also due to the lack of business continuity planning) for rice and vegetable farmers. Households with limited to no savings are left to buy seeds for next season or drinking water. Impacts from strong droughts may be felt for up to 2 years. As a result of low coping mechanisms, some communities may not recover from such loss.

Probabilité
Très probable

Gravité
Nuisible

Importance du risque
Risque élevé

Conséquence

long-term immigration

migration occurs in various forms, both part-time and permanently, to urban areas, neighbouring countries or provinces

Probabilité
Probable

Gravité
Très nuisible

Importance du risque
Risque élevé

Nom de l'aléa **Inondations**

Exposition Oui

Commentaires Flash flood in 2019, have destroyed some houses and many vegetables farms were washed away. Dam broken in Laos in 2018 destroyed hundreds of houses in two provinces. Many people were evacuated.

Conséquence

loss of crop production & income

Long-lasting episodes with too much rain cause rotting of rice plants & vegetables during rainy season. The existing drainage and irrigation practices used by communities are largely insufficient to ensure the survival of crops and seeds during and after intense rain episodes followed by severe droughts.

Probabilité
Très probable

Gravité
Nuisible

Importance du risque
Risque élevé

Conséquence

destruction of houses & infrastructure, disruption of market access

Probabilité
Très probable

Gravité
Nuisible

Importance du risque
Risque élevé

Nom de l'aléa **Tempêtes, tornades et/ou ouragans, vents forts, tempêtes de sable**

Exposition Oui

Commentaires Seasonal storms and strong winds destroyed over than 1000 houses and thousands of trees. Lightening killed animals and people

Conséquence **Damage to houses and buildings.**

Destruction of light agricultural infrastructure (bamboo scaffolding, nets etc.), damage to houses and critical roads/bridges. Storms and strong winds are observed more frequently in past years. Impacts are rather local.

Probabilité

Probable

Gravité

Peu nuisible

Importance du risque

Risque faible

Aléas dûs aux changements climatiques (et à la variabilité du climat)

Nom de l'aléa **Tendances générales à l'augmentation ou à la diminution des températures moyennes**

Exposition Pas sûr

Commentaires higher mean annual temperature +5-10% (rel. term)

Conséquence **higher water demand for people, livestock and agriculture**

Probabilité

Probable

Gravité

Nuisible

Importance du risque

Risque moyen

Conséquence **decrease of crop productivity**

Decrease in suitability in the production of paddy rice, (++) cassava (++) , soya (+), maize (+), rubber (+), and in livestock rearing (+).

Probabilité

Probable

Gravité

Nuisible

Importance du risque

Risque moyen

Conséquence **diminishing of groundwater resources**

Probabilité

Très probable

Gravité

Nuisible

Importance du risque

Risque élevé

Nom de l'aléa Changements dans la fréquence et l'intensité des phénomènes météorologiques extrêmes (ex : vagues de froid ou de chaleur, inondations, sécheresses, tempêtes, ouragans, cyclones)

Exposition Oui

Commentaires higher frequency and unpredictability of high rainfall events

Conséquence **loss of crop production due to non-timely sowing and planting (traditional knowledge is no longer applicable)**

Probabilité
Probable

Gravité
Très nuisible

Importance du risque
Risque élevé

Conséquence **Higher irregularity of the rainy season**

Earlier onset of the hot season and prolonged duration. Shortened rainy season. A new sequence of flood-drought-flood episodes is observed during the rainy season: flood episode in June-July (too much rain) followed by drought in August (no rain at all), immediately followed by flood situation Aug-Sept (too much rain). This lead to higher demand for adequate early warning systems. Rain was delayed in 2019 and 2020, started only in mid of June.

Probabilité
Probable

Gravité
Très nuisible

Importance du risque
Risque élevé

Évaluation détaillée des risques nécessaire ?

Oui – Une évaluation détaillée des risques est nécessaire.

● Perspective des impacts

Estimer l'impact sur l'environnement

Milieu environnemental	Eau
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Élément de l'activité Capacity building of farmers and processors for increased sustainable production, including year-round production and performance

Impact sur l'environnement Higher agricultural performance and year-round production will increase the demand for water resources.

Estimer l'impact sur les risques de catastrophe

Élément de l'activité Improved income and productivity of smallholder horticulture

Nouveau risque ou risque accentué More cycles of horticulture production may put pressure on the already stressed water resources in some places even more in some places. An integrated water resources management, based on surface & groundwater is needed, not to exacerbate the risk of future droughts.

Estimer l'impact sur les changements climatiques

Élément de l'activité None

Évaluation détaillée des impacts nécessaire ?

Oui – Une évaluation détaillée des impacts est nécessaire.