



СЕДРИГ
Облегченный

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

—
Moritz Krüger
June 2021r.



СЕДРИГ - это инструмент разработанный и предлагаемый



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC

Обзор

Информация общего характера

Contributors	Moritz Krüger, Swiss Agency for Development and Cooperation (SDC), Тайланд Jacqueline Schmid, Swiss Agency for Development and Cooperation, Швейцария Ali Neumann, SDC, Швейцария Pedro Basabe, SDC, Тайланд
Общая цель	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
Страна	Камбоджа
Бюджет	CHF 1.900.000
Продолжительность	01.01.2021 - 31.12.2022

Аннотация

Описание 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.

Ключевые слова agriculture and food security

Сектора, требующие оперативного вмешательства

Сельское хозяйство
Развитие сельских районов

Продовольственная безопасность
Управление водными ресурсами

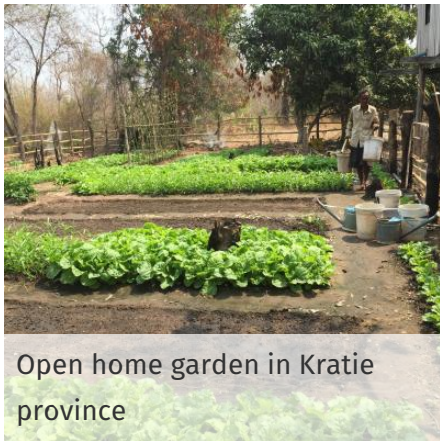
Другое
Marketing

Vegetables Production

Документы

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

Изображения



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

Факторы риска

Угрозы, возникающие в результате ухудшения состояния окружающей среды

Название угрозы **Обезлесивание**

Подверженность Да

Комментарии 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.

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

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

Степень вероятности

Весьма вероятно

Масштаб

Чрезвычайно
большой ущерб

Уровень риска

Высокий уровень
риска

Название угрозы **Вредители и эпидемии**

Подверженность Да

Комментарии locust, rats, flea beetle larvae

Последствие **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.

Степень вероятности

Возможно

Масштаб

Средний ущерб

Уровень риска

Средний уровень
риска

Название угрозы **Загрязнение вод (поверхностных и подземных)**

Подверженность Да

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

Последствие **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.

Степень вероятности
Возможно

Масштаб
Средний ущерб

Уровень риска
Средний уровень
риска

Природные угрозы (гидрометеорологические и геологические)

Название угрозы Аномально высокая температура

Подверженность Да

Комментарии 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

Последствие **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

Степень вероятности
Возможно

Масштаб
Небольшой ущерб

Уровень риска
Низкий уровень
риска

Последствие **slower and reduced labour work**

Степень вероятности
Возможно

Масштаб
Небольшой ущерб

Уровень риска
Низкий уровень
риска

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

Степень вероятности
Возможно

Масштаб
Средний ущерб

Уровень риска
Средний уровень
риска

Название угрозы Засуха

Подверженность Да

Комментарии 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.

Последствие **reduced water availability**

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

Степень вероятности

Весьма вероятно

Масштаб

Средний ущерб

Уровень риска

Высокий уровень риска

Последствие **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.

Степень вероятности

Весьма вероятно

Масштаб

Средний ущерб

Уровень риска

Высокий уровень риска

Последствие **long-term immigration**

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

Степень вероятности

Возможно

Масштаб

Чрезвычайно большой ущерб

Уровень риска

Высокий уровень риска

Название угрозы **Наводнения, внезапные паводки**

Подверженность Да

Комментарии 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.

Последствие **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.

Степень вероятности	Масштаб	Уровень риска
Весьма вероятно	Средний ущерб	Высокий уровень риска
destruction of houses & infrastructure, disruption of market access		
Степень вероятности	Масштаб	Уровень риска
Весьма вероятно	Средний ущерб	Высокий уровень риска

Последствие

Название угрозы Бури, торнадо, ураганы, сильный ветер, пылевые бури

Подверженность Да

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

Последствие

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.

Степень вероятности	Масштаб	Уровень риска
Возможно	Небольшой ущерб	Низкий уровень риска

Угрозы, возникающие в результате изменения климата (и изменчивости климата)

Название угрозы Общие тенденции к повышению или снижению среднегодовых температур

Подверженность Не уверен

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

Последствие

higher water demand for people, livestock and agriculture

Степень вероятности	Масштаб	Уровень риска
Возможно	Средний ущерб	Средний уровень риска

Последствие

decrease of crop productivity

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

Степень вероятности	Масштаб	Уровень риска
---------------------	---------	---------------

	Возможно	Средний ущерб	Средний уровень риска
Последствие	diminishing of groundwater resources		
	Степень вероятности	Масштаб	Уровень риска
	Весьма вероятно	Средний ущерб	Высокий уровень риска

Название угрозы Изменение частоты и интенсивности экстремальных климатических событий и взаимосвязанных стихийных бедствий (например, периодов экстремально высокой или низкой температуры, наводнений, засух, бурь, ураганов и циклонов)

Подверженность Да

Комментарии higher frequency and unpredictability of high rainfall events

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

Степень вероятности	Масштаб	Уровень риска
Возможно	Чрезвычайно большой ущерб	Высокий уровень риска

Последствие **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.

Степень вероятности	Масштаб	Уровень риска
Возможно	Чрезвычайно большой ущерб	Высокий уровень риска

Нужна ли углубленная оценка риска?

Да – Углубленная оценка риска нужна

● Воздействие

Оцените воздействие на окружающую среду

Природоохранная
сфера

Вода

Компонент мероприятия Capacity building of farmers and processors for increased sustainable production, including year-round production and performance

Воздействие на окружающую среду Higher agricultural performance and year-round production will increase the demand for water resources.

Оцените воздействие на риски стихийных бедствий

Компонент мероприятия Improved income and productivity of smallholder horticulture

Усилившийся или вновь возникший риск 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.

Оцените воздействие на изменение климата

Компонент мероприятия None

Нужна ли углубленная оценка воздействия?

Да – Углубленная оценка воздействия нужна