

# Climate-Friendly Rice Production in Thailand



Mr. Krilop had taken out the pipe after the last drainage of water. He will harvest rice soon after this. Foto: Foodtech Solutions (Thailand) Co., Ltd

**Rice cultivation causes large quantities of greenhouse gases. The aim of this M climate protection project is to make rice cultivation in Migros' own supply chain more climate-friendly. The climate-smart rice cultivation method uses less water and emits less climate-damaging methane gas. Higher crop yields improve farmers' resilience.**

Rice is a staple food for more than three billion people and is responsible for emitting eleven percent of global methane emissions and consuming 40 percent of the world's irrigation water. One kilogram of rice consumes 2000 liters of water. Due to climate change, the Food and Agriculture Organization of the United Nations (FAO) predicts a 15 percent drop in yields by 2050 and is therefore promoting climate smart agriculture.

With the help of the money from the M-Climate Fund, Migros wants to help switch from CO<sub>2</sub>- and water-intensive traditional rice cultivation to more climate-friendly rice cultivation in its own supply chain - by means of so-called AWD (alternate wetting and drying). This method is based on alternating irrigation and drying of the soil, which reduces the amount of methane that escapes into the atmosphere.

**Migros has been running its own organic cultivation projects in India and Thailand since 2010. Thanks to this project, we can now also rely on a more climate-friendly method of rice cultivation in a traditional setting. This avoids CO<sub>2</sub> emissions, but also saves water and pesticides.**

**Remo Thalmann, Federation of Migros Cooperatives**

The plan is to convert 1000 ha of traditional rice cultivation to the climate-friendly AWD method. More than 1000 farming families are to be trained in this new cultivation method. Demonstration fields will be used to show

## Project type:

Land Use and Forestry

## Project location:

Province Sakon Nakhon, Thailand

## Project status:

Planned

## Annual CO<sub>2</sub> reduction:

80,000 (total over 10 years)

## Situation without project

Higher methane emissions and higher water consumption

## Project standard

**Gold Standard<sup>®</sup>**

VER

## Partner

**MIGROS**

## Impressions



Planting Pratumthani rice in the experimental plots. Foto: Foodtech Solutions (Thailand) Co., Ltd

them the effectiveness and economic efficiency of the new cultivation method. In addition, the project will provide participating farm families with equipment to facilitate and safeguard the implementation of the method. Under AWD, yield increases are expected which, together with the prospect of higher farm profits, will encourage farmers to participate in the project.

Other benefits of the AWD method include up to 50 percent reduction in water use, more robust, healthier plants, which can help reduce the use of pesticides. This benefits the protection of small organisms. More biodiversity means healthier and more stable habitats for people and animals. Since the DWS method permanently increases net income, many farmers will continue climate-friendly land management after the project ends. Experience shows that an increase in income reduces the migration of young people.

This project contributes to 8 SDGs:



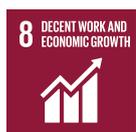
More income through increased crop yields and less expenditure on seeds and pesticides.



Adaptation of production methods to climate change increases food security



Water consumption is reduced



Increased income reduces migration to cities



Women and men are trained in the new farming method



Buyers of climate-friendly rice promote sustainable production methods



Mrs. Worn Butsaen is weeding in her AWD rice field. Foto: Foodtech Solutions (Thailand) Co., Ltd



Farmers learning how to observe the water levels. Foto: Foodtech Solutions (Thailand) Co., Ltd



Harvest in the experimental plots. Foto: Foodtech Solutions (Thailand) Co., Ltd



Methane emissions are reduced



Partnership with Thai organizations