



Rice is more

Innovation • Resilience • Happiness

ข้าวไทย วิถีใหม่ ใส่ใจโลก

Thai Rice: Strengthening Climate-Smart Rice Farming

Project Background

Rice is deeply ingrained in Thai identity. Over five million households in Thailand are involved in rice farming, which forms the backbone of rural livelihoods and the economy. As one of the world's top rice exporters, Thailand plays a key role in global food security, with approximately 70 million rai (11 million hectares) of rice farmland sustaining more than 3.5 billion people worldwide who consume rice as a daily staple.

Rice farming must confront unique challenges in the context of climate change. Covering more than half of Thailand's agricultural land, rice farming accounts for 51% of total greenhouse gas (GHG) emissions in the agriculture sector. The practice of extended flooding of paddy fields leads to emissions of methane, a GHG that is more potent than carbon dioxide. Emissions also result from the inefficient use of fertiliser and mismanagement of biomass residues, among other practices.

The increasing frequency and intensity of extreme weather events, such as droughts and floods, and changes in temperature and rainfall have direct impacts on rice yields, leading to harvest losses and affecting farmers' means of subsistence and livelihoods.

The 'Thai Rice: Strengthening Climate-Smart Rice Farming' project brings together public, private, financial and research institutions to scale solutions that tackle these challenges. Through a paradigm shift to make climate-smart agricultural practices the norm, we can increase productivity and reduce GHG emissions from rice farming while increasing incomes and strengthening the livelihoods of smallholder farmers.

Objective

To transition smallholder rice farming in Thailand to low-emission and climate-resilient pathways through the adoption of climate-smart technologies and practices at scale.

Project Budget

Up to €118.08 million, in funding from:

- Green Climate Fund (GCF)
- German Federal Ministry for Economic Cooperation and Development (BMZ) through the develoPPP programme
- International private sector partners, including Ebro Foods, Mars Food, Olam Agri, and PepsiCo
- In-kind contributions from the project's Executing Entities (EE)

Project Areas

The project areas cover 21 provinces, including:

Chiang Mai • Chiang Rai • Buriram • Kalasin
Nakhon Ratchasima • Roi Et • Si Sa Ket
Surin • Ubon Ratchathani • Ang Thong
Ayutthaya • Chai Nat • Kamphaeng Phet
Lop Buri • Nakhon Sawan • Pathum Thani
Pichit • Phitsanulok • Sing Buri
Suphanburi • Uthai Thani

Project Duration

Q1/2024 to Q4/2028 (5 Years)

Approach & Structure

1

Empowering Farmers

Climate-smart farming boosts income and food security despite climate change



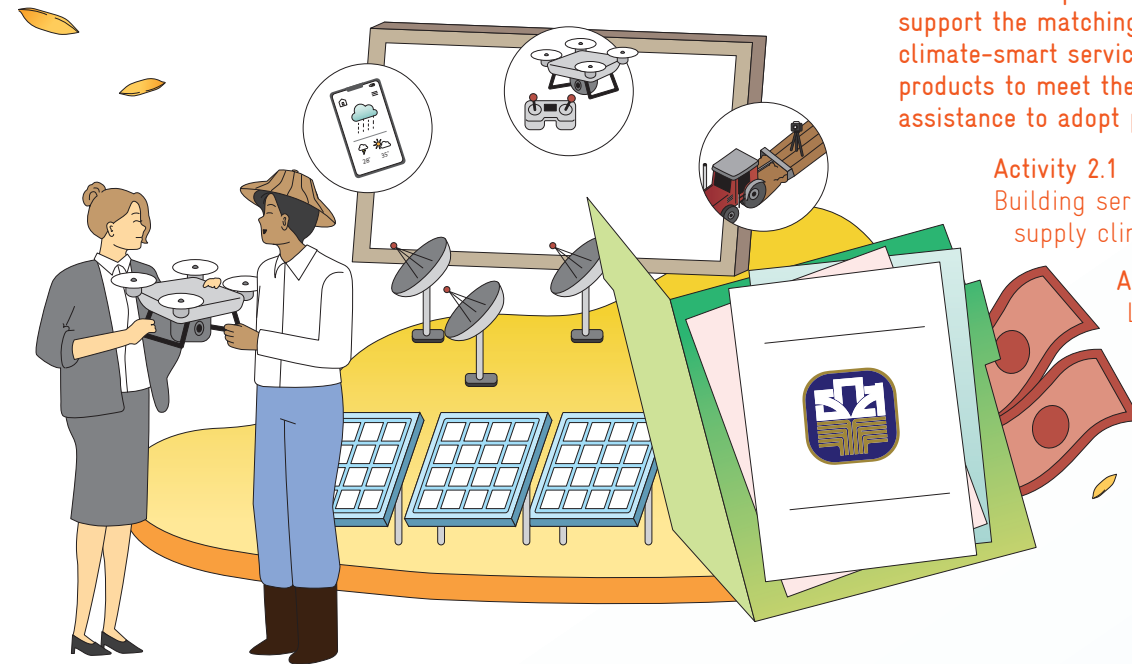
We work to strengthen extension services and build know-how for smallholder farmers to manage rice farming operations and inputs more efficiently and sustainably, to achieve more with less.

- Activity 1.1 Building skills for smallholder farmers and extension services in climate-smart rice farming
- Activity 1.2 Improving farmers' access to finance for climate-smart farming services and technologies

2

Scaling Up Farmer-Support Services

Climate-smart technologies boost rice farming resilience and reduce GHG emissions



We work to expand the availability and support the matching of farmers with climate-smart service providers and financial products to meet the needs of farmers seeking assistance to adopt proven practices.

Activity 2.1 Building service providers' capacity to supply climate-smart technologies

Activity 2.2 Launching climate-smart and farmer-friendly financial products

3

Strengthening an Enabling Environment

Institutions and markets drive climate-smart agriculture



We work to strengthen institutions and market mechanisms that encourage rice value chain actors to support and scale climate-smart rice farming, including beyond the project duration.

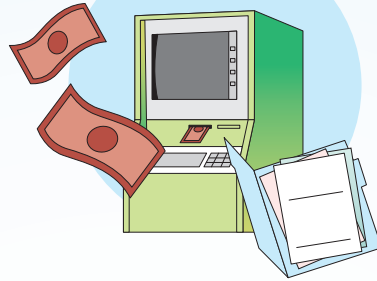
- Activity 3.1 Enhancing market linkages and standards for sustainable rice and biomass
- Activity 3.2 Strengthening institutions and policies for climate-smart rice farming
- Activity 3.3 Supporting national funding mechanisms for climate innovation in agriculture
- Activity 3.4 Promoting regional exchange and peer-to-peer learning

Financial Mechanisms



Enhancing farmers' financial literacy and climate risk management skills through capacity building and training.

Enhancing Access to Finance

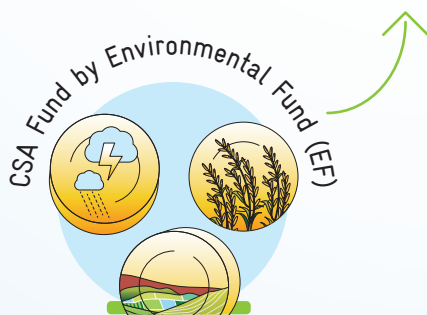


Improving farmers' ability to access finance for climate-smart agriculture services and technologies through:

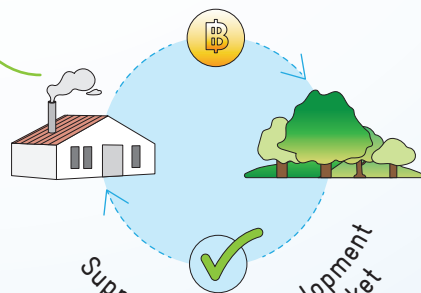
- Providing Climate-Smart Incentives (CSI) to promote and support the adoption of Climate-Smart Technologies (CST)
- Offering farmer-friendly financial products in collaboration with BAAC, including:
 - Climate-Smart Loans (CSL) to enable investments in new technologies
 - Insurance for farmers to increase the resilience to climate risks



Together, these interventions will facilitate a paradigm shift in the Thai rice sector, attract additional capital and financial resources for resilient and low-emission rice, and ultimately benefit the primary target group of the project – smallholder farmers in Thailand.



Setting up a climate-smart agriculture (CSA) funding initiative to support local projects aimed at mitigation and adaptation in the agricultural sector.



Establishing a link to market-based mechanisms to enable smallholder farmers to generate additional revenue by adopting CST in the future.

Expected Outcomes

Greenhouse gas reduction:

2.44 MtCO₂e

Number of rice farmers who invest in and apply climate-smart technologies and practices:

253,400 farmers

10% increase

in annual farming income

40% increase

in the average empowerment score for climate-smart female farmers

20% reduction

in the use of fertilisers, pesticides and other agricultural chemicals



60-80% reduction

in smoke (air pollution) from rice straw and stubble burning

Our Partners

On behalf of



GREEN CLIMATE FUND



german cooperation
DEUTSCHE ZUSAMMENARBEIT

Funding programme



Partners in Transformation
developPPP

Implemented by



giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

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