

Yasothon, one of the 10 poorest provinces in Thailand, is part of the legendary 'Weeping Plain'. The Plain spans five provinces, covering more than 2.1 million rai (829,500 acres). The Plain's dry conditions have historically made it suitable for growing the world-famous fragrant jasmine rice.

Oxfam has been working with local organisation, Earth Net Foundation (ENF), since 2004. This partnership was formed to promote organic agricultural practices and fairtrade marketing with farmers in Yasothon Province, which, compared with conventional chemical-based farming, is less dependent on external input, requires less energy, and is more environmentally sustainable.

### The Project

In 2007, after the province experienced its longest rainy-season dry spell in decades, communities and scientists confirmed the climatic changes were a trend rather than a one-off event. As a result, Oxfam decided to take action to safeguard the livelihoods of the region's farmers. In consultation with farming communities and ENF, Oxfam implemented an initial one-year pilot climate change adaptation project for organic rice, which ran from May 2008 to March 2009. Eleven per cent of organic farming households decided to join the scheme, which also received support from START (Global Change Systems for Analysis, Research and Training).

### Activities

#### 1. Climate change awareness and participatory decision-making

Men, women and children were educated about climate change and its potential impacts in Thailand. Using this information, participants shared ideas about how they could adapt their farming practices to cope with these changes, and they designed their own on-farm water management systems.

#### 2. Provision of loans to project participants

ENF established a fund to provide loans of up to 30,000 baht (\$880) to each household, this would assist in the construction of on-farm water management systems. The loans were offered at low interest rates of one to three per cent for one to six years and had a one hundred per cent take up rate from participating households; 1,400,000 baht (\$41,000) in total.

#### 3. Implementation of on-farm water management systems

In total, 23 stock ponds, 24 wells, 44 water-drainage systems (ditch, sprinkle, pipe), and 14 water pumps were designed, built, and installed. Due to the uncertain impact of climate change on rice production, farmers also diversified their food crops. Many farmers, especially women, grew vegetables and planted fruit trees as alternative sources of income.

#### 4. Farmers as catalysts

Farmers taking part in the project met others from surrounding agricultural areas to share their experiences, in the hope that by working together, they can overcome the problems posed by a changing climate. Several workshops took place, with themes such as: agricultural models



### Climate change in Thailand

- Temperature increases.
- Changes in rainfall patterns (frequency and intensity).
- Prolonged drought.
- Intense rainfall events, leading to flooding and storm surges.
- Reduced agricultural production, including lower rice yields.
- Impacts on food and water security, health, settlements, forests.

### Objectives

- Support farmers to recognise and understand the impacts of global warming and climate change.
- Support farmers with appropriate water management systems for their organic farms.
- Promote selected farmers as role models and catalysts for change, by means of sharing their knowledge and experience with other farmers in Yasothon.
- Study the impact of climate change on women.

*"Climate adaptation, in my opinion, is the ability to be flexible in dealing with climate shocks. Putting your eggs in one basket – or, in agricultural terms, monoculture farming – would be too risky; but integrated farming, for example, is a wise thing to do because your livelihood is not based on one crop."*

Dr Anond Snidvongs, START

and techniques to reduce climate risks; the impact of climate change on female farmers' roles; and on-farm product and seed management for female farmers.

## Outcomes

As expected and feared, 2008 saw Yasothorn hit by drought – the 'worst in 57 years' according to village elder, Moon Polchai, from Kut Chum district. The drought, which began in June and continued until the end of August, made rice cultivation very difficult. The problem was exacerbated by rain during the harvesting months, which drowned many of the surviving rice crops in the low-lying plains.

### 1. Food security

A post-harvest evaluation found all 57 participating households were more food-secure than they had been before the start of the project. Of the rice, vegetables, meat, and fruits consumed, more than 90 per cent was grown by the families, and less than 10 per cent purchased from outside.

### 2. Reduced decline in rice production

Despite the year's harsh conditions, 51 out of the 57 programme participants were able to maintain an output of rice that was at least sufficient for their own household consumption, with 14 producing a surplus to sell at market. Overall, rice production fell by almost 16 per cent – in stark contrast to farms that did not take part in the project, whose production fell by 40 per cent overall.

### 3. Diversity of crops

In addition to applying appropriate rice-planting and water management techniques, programme participants adopted crop diversification as a way to attain food and economic security during unpredictable rice production seasons. Farmers, especially women, planted fruits and vegetables during and after rice cultivation, the produce not consumed themselves could be sold at local markets, earning households between 500 to 1,500 baht (US\$ 15-40) per week.

## What's next?

Oxfam is planning a second phase of the programme, which will:

- increase the number participating farmers;
- provide additional training on the impacts of climate change, including farmer-to-farmer training; and
- research and identify alternative adaptation methods appropriate for all family members, including children.

Oxfam, ENF, START, and Healthy Policy Foundation will conduct in-depth research into the impact of climate change on rice production in Yasothorn Province.

Oxfam and ENF also plan to enter negotiations with local government authorities, the provincial governor, district and subdistrict administrative committees, and the Agriculture and Cooperatives Bank. It is hoped that this will help secure support and resources for the expansion of project activities in Yasothorn Province, as well as promoting policy change.

Manoon Phupa, a farmer who joined the project, creatively designed his own windmill pump from old billboard cut-outs to drain and irrigate water from a new well that Oxfam helped to build. The new well, in addition to his existing pond, was used to flood his paddy fields during the prolonged dry spells. He also constructed dykes inside his paddy fields to drain water from the pond to supply the paddies. Not only has he learned how to grow rice with limited water, he has also diversified his food crops to include vegetables and fruit.

Even though the droughts in 2008 were more severe than in previous years, Manoon's water-management system has helped him to gain higher yields of both jasmine rice and sticky rice for his household's consumption, with a surplus for the market.

## Lessons Learned

- Participation of farmers in every stage of the project contributed to its success.
- Use of scientific data by farmers, government official and scientists helped participants make informed decisions and was important in all steps of project implementation.
- Low interest loans for farmers enabled repayment without incurring further debt.
- Farmers' new knowledge on climate change helped them apply to their existing experience and practice.

## For more information contact:

S. Anuchiracheeva  
Programme Co-ordinator, Oxfam  
[www.oxfamblogs.org/eastasia](http://www.oxfamblogs.org/eastasia)  
Email: [sanuchiracheeva@oxfam.org.uk](mailto:sanuchiracheeva@oxfam.org.uk)