

Climate-smart rice supports livelihoods and the environment



Climate-smart rice is one of the innovative practices that VFD promotes to help increase farmers' incomes, reduce harmful environmental impacts from chemical fertilizers and less pesticide, reduce seed and water needs, while also reducing greenhouse gas emissions.

Introduction

Ba Thuoc is a poor district in western Thanh Hoa province with more than 4,000 ha of paddy rice, which serves as the major food source for local people. In the past, rice farmers in Ba Thuoc had utilized less effective traditional methods of rice cultivation with high planting density, high use of fresh manure, and frequent applications of chemical fertilizers. These practices polluted the water and land, saw high greenhouse gas emissions, and gave relatively low productivity for the investment costs for seeds, fertilizer, and other inputs. The hard-working farmers of Ba Thuoc district were satisfied with these methods for many years, but have quickly changed their views after learning about climate smart rice.

Farmer field schools for climate smart rice

From June to September 2016, the Vietnam Forest and Deltas Program (VFD) cooperated with Ba Thuoc District People's Committee to apply climate smart rice (CSR) techniques in four communes through farmer field schools for more than 100 ethnic Thai farmers. These farmer field schools provide an overview of the key principles of CSR, including:

- Planting young seedlings less densely than traditional methods
- Limiting water levels in paddy areas, which helps reduce greenhouse gas emissions
- Utilizing straw to produce organic fertilizer as an alternative to chemical fertilizers

Initially, local people were sceptical of the benefits of this new model, so VFD and the District People's Committee supported demonstration sites where local farmers could observe the benefits throughout the growth cycle of the rice crop. Farmers were excited to see that benefits of CSR surpassed conventional rice cultivation, notably with:

- Post-harvest yields in Ba Thuoc show an increase in productivity of 1,360-1,640kg/ha when applying CSR methods,
- The amount of seed is reduced by 30-40kg /ha, thus saving farmers money in seed costs
- 50% reduction of chemical fertilizer,
- Reduced water needs by 2-3 times.



Mrs Pham Thi Tinh at Khung village, Thiet Ke commune said, *"when cultivating with traditional farming methods, the production costs were high but productivity low, and we didn't know about environmental pollution. Before joining the farmer field school that was supported by the project, I did not trust CSR. However, I thought that the project must provide us an innovative method to help us, so I decided to participate and apply new method to my own farming area. Now my own yield have increased from 25 to 30% with the profit is from 8-9 million VND/ha. In 2017 and the following years, we will continue to apply CSR farming method for the whole area rice of the family"*

At the end of the 2016 season, even farmers from outside the farmer field schools were anxious to try the model. Mr Ha Van Tuan at Chieng Lau village, Ban Cong commune was not a part of the training group, but he said *"I felt funny when I initially saw other farmers applying CSR because it was extremely different compared to the long experience we had before. I wondered how this new farming method could give us something to live on. But I was really surprised when looking at the healthy plants, saving costs but still getting super productivity yields. In the coming crop season, I will definitely apply CSR for my farming rice area"*



Mrs Pham Thi Tinh



Mr Ha Van Dung

The way forward

Based on the success of 2016, in February 2017, the People's Committee of Ba Thuoc district and VFD continued to support Thai and Muong farmers in Ba Thuoc district to apply CSR cultivation in the area. The commune now has eight farmer field schools with 258 trainees, and eight women's clubs with 280 members. CSR techniques are now being applied in 24.5 hectares of rice fields. Assessing the effectiveness of the model and the scaling up of the district, Mr. Nguyen Trong Lich - District Secretary of Ba Thuoc Committee commented, "New CSR cultivation is an advanced farming method that promotes organic farming, reduces costs, increases productivity, and practices of CSR models developed by Vietnam Forests and Deltas Project have well demonstrated the effectiveness of the model and therefore needs to be included in the district's agricultural restructuring program. Although there are many difficulties in changing the thinking and perception of farmers, with the support of the project, the Party Committee, the People's Council and the People's Committee of Ba Thuoc district will direct the local authorities and specialized units step by step to support farmers to pioneer the upscaling of CSR in the district in the coming time."