GCP Annual Research Meeting 2007

Building a Community of Rice Biotechnology in the Mekong Region

Theerayut Toojinda¹, Jonaliza L. Siangliw, Sureeporn Katengam, Watcharapong Wattanakul, Men Sarom, Monthathip Chanpengsay and Toe Aung ¹Rice Gene Discovery Unit, National Center for Genetic Engineering and Biotecnology, THAILAND

Theme:

Support Services and Enabling Delivery

Abstract

Countries in Mekong Region share similar rice planting ecosystems and constraints in rice production. Application of biotechnology like marker-assisted selection (MAS) in rice breeding had been proven effective in Thailand. Rice Gene Discovery Unit (RGDU), BIOTEC had the opportunity to convey knowledge to its neighboring countries through trainings thus molecular breeding of rice in Mekong Region begun when long term training on MAS was initiated in 2004 as sponsored by Rockefeller Foundation. This training aims to develop popular rice varieties like CAR3, TDK1 and IR53936 from Cambodia, Laos and Myanmar, respectively which lack traits that may improve quality and adaptation in the local area. This made them realize the potential of biotechnology, thus under the GCP project, the lines initially developed can be continued until target location testing. Molecular techniques on QTL/gene identification and MAS were introduced to participants from CARDI (Cambodia), NAFRI (Laos) and DAR (Myanmar) inside and outside RGDU. On site workshops further intensify the enthusiasm of each institute to learn and apply biotechnology not only in breeding programs but also in protecting rich germplasm collections in each country. Moreover, they are seeking for more capacity-building and human resource development programs that will strengthen research and development.