

Abstract

The study aims to (1) improve productivity and fertility remediation technology in agricultural areas of the community for examine the sustainable agriculture system, (2) for the conservation of biological diversity as a source of food for the community, and (3) study the value alternative plant in the Mae Song Highland Development Project Using Royal Project system Area, in two pilot areas (Wa Do Kro and Talajo). The study of local seeds quality production in paddy rice by transplant single seedling, showed 31 percent increased (from 377 kg / rai to 494 kg / rai). And the yield of field rice that lacked nutrients (phosphorus, calcium, magnesium, zinc and boron) were increased by 36 percent (from 396 kg / rai to 538 kg / rai) after added them. In the remediation of fertility in rice field, which is the second year, were experimented by using soil and water conservation system in 2 upland rice farmers. The first method was management by local knowledge, the second using soil and water conservation system (Transverse ridge Slope / planting legumes transverse Slope / legumes planted ground cover).

In the biodiversity conservations and utilization, the status of food plants and local plants in community, and plants rehabilitations belonged to 2 communities (food plants and medicinal plants) were observed. The local seasonal food plants in Wa Do Gro and local seeds were collected, 49 species and 39 species respectively. Six species of plants for rehabilitation (tur gler, ginger, phlai, Kim Sung bamboo, ka na sa, phak haak) and materials to make home garden in 2 communities (Wa Do Gro and Tala Joe) for grow foods and herbs in household were supported. Diversity of mushrooms and the local wisdom's management for utilization in 2 communities, Wa Do Gro and Mae Ra Meung, amount 71 species were reviewed and revised. And the cultivation of mushrooms for make food supply and income in household of 2 communities, found that Jew's ear mushrooms was grew well, then oyster mushrooms. For the study of conservation and rehabilitation were examined in 2 mushroom groups, mycorrhizal mushrooms (Amanita, Russula, Boletes) and saprobes (jew's ear mushroom, giant cup, Lentinus).

Keywords: Food Security, Mae song the Royal Project Extension Area
