

Abstract

This project using the Community Food Bank Project under the Royal Initiative of His Majesty King Rama IX, as the principle guideline for research study. This project focused on the participation as well as the creation of learning communities in the conservation and restoration of local biodiversity for food and medicine of highland communities. The objectives were (1) To study the conservation and restoration of local biodiversity as a source of food for highland communities, (2) To study the knowledge transfer and promote the continuously use of local plants to communities, (3) To study management approaches leading to the protection of local plants through participatory processes of communities and related organizations.

The results were summarized as follows: (1) Ethnobotanical used in 5 areas including Ban Lao, Ban Huay Hom, Ban Pang Ton Poeng, Ban Khob Dong, and Pa Klouy were 169, 101, 76, 67, and 22 species, respectively. There were 72 plant species were selected to be enrichment such as *Paris polyphylla* Sm., *Panicum* sp., *Berchemia floribunda* Wall., *Pueraria mirifica*, *Thunbergia coccinea* Wall. ex D. Don., *Litsea cubeba* (Lour.) Pers., *Zanthoxylum limonella* Alston, and *Melientha suavis* Pierre., (2) Five local plant restoration schemes comprised of community food bank, indigenous seeds collection, local plant demonstration, agroforestry, and home garden., (3) The combination of 100 mg/L GA and 100 mg/L IBA resulted in greater rooting and sprouting of Paris rhizome compared to control treatment., (4) Development of community organizations to support local conservation and restoration activities and biodiversity in 4 communities: Ban Huai E-Khang, Ban Pa Pae, Ban Pa Klouy, and Ban Pa Dad with the establishment of the committee to plan and drive activities continuously., (5) Cultivation methods and local seed storages were collected in 4 communities. The cultivation patterns included: Planted with upland rice, backyard, fencing, and home garden., (6) The 155 species of local plants were rehabilitated for sustainable utilization in 17 areas, with 537 households., (7) There were 702 persons who had received knowledge about consume food plant as medicine and methods of local plant seeds production., (8) The 300 rai of community forest area of Ban Huay E-Khang were selected for plant protection study through participatory processes.

Keywords: Local community food bank, Highland biodiversity, Knowledge transfer, Conservation, Restoration