KARANG VILLAGES IN KAENG KRACHAN NATIONAL PARK. UTILIZATION AND CONSERVATION OF WILD PLANT DIVERSITY: A CASE STUDY OF TWO
ABSTRACT

This research aimed to study the local knowledge in utilizing and conserving wild plant diversity and factors that influence Karang households’ and communities’ decision making in bringing plants to grow around their houses. This research was conducted employing questionnaire and in-depth interview as well as species list to study all 106 households at Baan Bang Kloi and Baan Pong Leuk, Kaeng Krachan National Park. Data collection in the study area covered the period of April to May 2009.

This study found 219 plant species in 76 families and 172 genera grown at homestead agroforest. These plants were categorized into cropped plant species (109 species) and wild plant species (110 species). Of these plant species, 50% is being utilized as food, 28% medicinal, 14% household-use, 6% ornamental, 1% ritual and 1% toxic plant species. Of these, 74 species are herbs (34%), 63 species are trees (29%), 50 species are shrubs (23%) and 32 species are climbers (14%). Shannon Wiener Index, employed to indicate plant species diversity at homestead agroforest, showed the total plant diversity index value of 3.94, wild plant species diversity index value of 3.03 and cropped plant species diversity index value of 3.50. The total of 188 species were found at Baan Bang Kloi and 180 species found at Baan Pong Leuk. Of these, 151 species were found in both villages whereas 68 species were found in only one village. Thirty eight species were only found in Baan Bang Kloi whereas 30 species were specifically found in Baan Pong Leuk.

Multiple regression analysis was employed to analyze factors influencing household and community decision making to grow plant species in their homestead agroforest, and it was found that the factors of age of household head, major and minor occupation as farmers, debt status of household and villages in terms of different settlement duration and characteristic, could statistically significantly explain 25% variation in wild and cropped plant species diversity at homestead agroforest (p<0.05). Baan Bang Kloi had just migrated and their settlement areas were clustered, whereas their cultivation areas were separated from their residence. As a result, the homestead agroforest has statistically significantly high diversity than Baan Pong Leuk (p< 0.05). Due to the fact that both communities have local botanical knowledge in terms of utilization and conservation of plant species diversity, together with their livelihood as agriculture communities in forest area, they maintained local plant species diversity in their homestead agroforest. The promotion of sustainable utilization of plant species around homestead agroforest, thus, should pay attention to the importance of local knowledge to be set as a guideline or recommendation to promote the roles of local people and communities in decreasing the dependency on biodiversity as well as in conserving biodiversity in homestead agroforest.

KEY WORDS: HOMESTEAD AGROFOREST/ WILD PLANT CONSERVATION/ KARANG VILLAGE/ INDIGENOUS KNOWLEDGE/ KAENG KRACHAN NATIONAL PARK