

## Abstract

This research aims to study for the appropriate geosocial based sustainable development of 3 Royal Project Models comprised of Assam tea community (Ban Pang Bong: Pa Mieng), Rice growing community (Ban Dong: Mae La Noi and Ban Mae Kha Nin Nuea: Thung Reong) and Opium eliminated community (Ban Huay Kha Min: Mae Hae). By the year 2016, the post evaluations were investigated in each pilot community according to the indicators of Royal Project development model including 3 criteria 21 indicators. The scoring of each indicator using the 5-point scale, with totally 105 points. The Royal Project development model must be assessed on average at least 4.

The results are summarized as followed (1) Local biodiversity conservation and restoration for community food bank were conducted in 4 areas. Total of 135-206 local plant species were used as edible food, herb and other purposes. Plant propagation was also taken in each communities vary from 21-51 species, whereas 13-45 species were restored in community forest in total of 18,808 plants. (2) The three species of mycorrhizal mushroom were also cultivated in Pa Mieng area (3) The two guidelines of zero wasted management were household waste and the use of agricultural waste such as mushroom cultivated material, compost and biogas from coffee processing (4) Single rice seed planting technique was adopted by 17 farmers in 3 areas due to quite similar yield comparing to their own practices (Bue-A-Ja: yielding 685-758 kg/rai, San Pa Tong: yielding 640 kg/rai, Khao Dok Mali 105: yielding 600 kg/rai, Khao Lueang: yielding 437-683 kg/rai). The reduction of seed used was 17-45%. Finally, the post evaluations of each communities were concluded as follows; (1) Assam tea community; Ban Pang Bong had effective rate increased from 3 (71 points) to 4 (92 points) with approximately raised level of 83.33% (2) Rice growing community; Ban Dong had effective rate increased from 3 (69 points) to 4 (84 points) with approximately raised level of 92.86% (3) Rice growing community; Ban Mae Kha Nin Nuea had effective rate increased from 3 (72 points) to 4 (88 points) with approximately raised level of 92.30% (4) Opium eliminated community; Ban Huay Kha Min had effective rate increased from 3 (73 points) to 4 (87 points) with approximately raised level of 83.33%.

**Keywords:** Royal project model, Sustainable development, Geosocial, Assam tea, Paddy rice, Opium eliminated