

Thesis Title The Human Settlement Appropriate to
Local Natural Resources the Application
of GIS : A Case Study Amphoe Sirindhorn,
Ubonratchatani Province

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Abstract

Amphoe Sirindhorn, one district of Ubonratchatani province, is important in the economic, social and political aspects including natural resources and the environment. Government policy to develop Chong Meg pass to become border trading point of the Indochina will be an incentive (pulling) factor for population growth. The objective of this study was thus geared to the local resources potentiality for coping with the growth of the community and the human settlement appropriate to local

resources in the agricultural, commercial, and environmental zone. The GIS and program ILWIS was applied to analyse the data by using the technic "overlay". The new map created by GIS includes details that will meet the stated objective more clearly.

The results of the study revealed that the potential area for agricultural zone was 20.6%, 2.1% for commercial zone and 63.4% for environmental zone. The suitable agricultural zone was in the western part of the Amphoe: Tambon Khun Rai, some area of Tambon Khum kuan kaew and the area around the reservoir. The suitable commercial zone was in Tambon Chong Meg, Fang Kum, Nikom Sang Ton Eng, and the suitable environmental zone was in the eastern part of the Amphoe which is the national conservation forestry area.

The appropriate area for human settlement in agricultural zone was about 20,351 rai, 4,976 rai for commercial zone and 3,920 rai for environmental zone. The number of pupulation from the projection in the year 2543 will increase to 12,730 or 35%. The areas needed for human settlement will be 3,920 rai, 4926 rai and 1,470 rai respectively, each of which will be enough for the number of pupulation of 3,392 ,829 and 3,782 households. These areas are appropriate for human settlementbecause there are public services available suchas health centers, schools, markets, water resources and convenient road networks.

As Amphoe Sirindhorn is the new district with moderate population density, where the population growth should be systematic and consistent with its environment and local resources, sufficient public services should be provided in order to save the people's living and travelling expenses as well as agricultural product transportation expenses. This will create cooperation among people in these area and prevent them from moving to work elsewhere.

However, feasibility study should be undertaken by related agencies before using this finding as guidelines for further implementation.