

Theeraporn Supraditarporn 2007: Modeling of Carbonate Rock Management at Doi Kai Kia, Amphoe Chom Thong, Changwat Chiang Mai. Master of Science (Sustainable Land Use and Natural Resources Management), Major Field: Sustainable Land Use and Natural Resources Management, Interdisciplinary Graduate Program. Thesis Advisor: Assistant Professor Pornsawat Wathanakul, Dr.rer.nat. 91 pages.

Carbonate rocks are non-renewable geological resources. Utilization process of the rocks involves mining that usually cause environmental impact and land use conflict. Meanwhile, the demand of carbonate rock is increasing in accordance with the development and economic growth of the country. This is due to the fact that carbonate rocks are considered to be the basic material in many industries. Utilization of carbonate rocks at Doi Kai Kia, Amphoe Chom Thong, Changwat Chiang Mai is one of those cases that have encountered economic, social and environment impacts.

A model of carbonate rock management at Doi Kai Kia covering the economic, social and environmental impacts was studied. Questionnaires for stakeholders concerned covering such impacts were designed. Physical features of the natural resources in the area were recorded. The community's opinion survey was carried among the stakeholders. All data were analyzed and evaluated to obtain a suitable model of carbonate rock management at Doi Kai Kia.

The results of the study indicate that all parties concerned need to be involved in solving the problems covering the economic, social and environmental aspects. The level of participation has not yet satisfied, especially by the local community. The analyzed model of carbonate rock management at Doi Kai Kia from this study includes analysis of the country's policy on natural resources utilization regarding economic, social and environment aspects in order to obtain guide lines of action plans for all stakeholders. The plan contents such as natural resources knowledge dissemination, quality of life and economic development, and fair share among the parties concerned have to be implemented for the purpose of sustainable development. However, the management of carbonate rocks at Doi Kai Kia would be successful only when this model would have been applied and practically implemented. The model resulted from this study can also be applied for carbonate rock management in the other areas.

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