**Application of geographical information system to site selection of small run-of-river hydropower project by considering engineering/economic/environmental criteria and social impact**

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| **Study ID** | **indicators** | **methods** | **scale** | **practices** |
| 18 | * socio-economic condition * the use of forest and the quality life * value, change condition of household and community * small run-of river hydropower project perception * attitude toward the project * and project support. | * face-to-face interviews based on questionnaires * focus group discussions * exhibition of the project detail | * Project support (%) | The feasibility study of the project includes, in addition to economic aspects of engineering and environmental criteria, aspects of social impact. |

4.6.2. Public opinion survey

“A public opinion survey is conducted in the potential areas for project development based on engineering criteria. There are **two groups of samples**. The **first group** is from simple random sampling according to the characteristics of the population: people who live within 2.5 km in radius from the projects, people who are 18 years of age and older, and the leaders of the communities such as teachers, monks, and village headmen. The sample size is obtained from Yamane equation at level of 95% confidence. The population in the Nan province was 477,662 [43], thus by using the value of sampling error equal to 0.05, 400 samples are obtained. However, 1500 samples are collected in this study to obtain more accurate results. For the **second group**, purposive sampling is used. Fifty samples are selected from the representatives from government agencies, mass media, and non-government organizations (NGOs).”

4.6.3. Focus group discussion

“Focus group discussion is used to collect qualitative data on the villagers’ concerns and perceptions about the project. The participants are the representatives of the communities directly affected by the project development. The process of focus group discussion consists of:

(1) Providing project information to the participants by using leaflets, exhibitions, models, and presentation of project detail.

(2) Asking probing questions related to the members’ worries about the project.

(3) Separating the participants into small groups for discussion.

(4) Presentation of representatives from each group.

(5) Asking probing questions as to how to reduce participants’concerns about the project, who should be responsible for doing so, and how local people can get involved in the project.

(6) Separating the participants into small group for further discussion.

(7) Presentation of representatives from each group and opening for discussion.

(8) Evaluation and conclusion of the meeting.

The focus group meeting is conducted by the facilitators, who use probing questions to elicit the ideas and experiences of the members in the group. The process begins with broad questions and proceeds to specific questions”