

Rokan River Basin Overall Irrigation Development Plan Study, Indonesia

(Period of the study: 2.5 months from February 1992 Our assignments: Land Use Plan)

Background of the Study

Since the Rokan river basin in Sumatra, Indonesia has high agricultural potential because of its abundant land and water resources, various projects are being implemented for migration and plantation. The importance and the urgency of the irrigation development project at entire basin in harmonized with the improvement and stabilization of agricultural productivity and support for the migration was confirmed and the study for the project was requested to the Japanese Government. The objective of the study was to formulate a basic development plan in general and also to formulate an irrigation development plan for the target area and to assess the technical and economic feasibility.

Outline of the Study

The study was carried out by 10 experts specialized in irrigation/drainage, hydrology/meteorology, pedology/geology, basin development, soil/land use, farming system, agricultural economy, facility planning and project evaluation. In the Phase-1 study, a basic plan for the utilization of water resource was formulated. In the Phase-2, an irrigation plan for the priority area was formulated. For the future land use planning, the special attention was paid on the soil property, present land use and also both natural and social conditions. In this study, the effective conservation of the forest where the local community collects their daily fuel wood was carefully considered for the sustainable utilization of soil and water resources.

Our assignments

- Description of soil profiles, soil sampling, data analysis and preparation of soil map,
- Preparation of land classification map for different crops based on the field survey results and soil maps,
- Preparation of present land use map and vegetation map based on the field survey results and aerial photographs,
- Preparation of land use plan map for the target area of irrigation development.

