

## **Integrated catchment management plan for Sg. Maong watershed.**

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### **Abstract**

Lack of integrated catchment management is the key factor leading to the deterioration of Sg. Maong water quality. This is worsening with the rapid development in the catchment. In this study, the framework of an integrated catchment plan is developed. Data were collected through literature search, field observation, and interviews. Major catchment issues identified were water quality and flooding. It is proposed that an effective integrated catchment management, Sg. Maong Catchment Committee (SMCC) be set up where relevant government agencies are involved. Management strategies highlighted were the management of institutional organization and environmental legislation, training programs, improvement of the existing catchment management plan, public awareness program and water quality monitoring program.

*Key words: river, watershed, watershed management*

### **Introduction**

Rivers are important assets. Rapid development and an increase in population have resulted in an increase in the amount of waste channelled into rivers from domestic, industrial, agricultural and commercial areas in the watershed. Sumiani (2000) reported that the main cause of water degradation is the mismanagement of water catchment. From preliminary studies (Terence 1998), Sg. Maong was classified as Class III and Class IV, which is considered polluted according to the River Classification standard set by Department of Environment (DOE). It is predicted that the river will receive more pollutants as land use in the catchment increases in the future. Therefore, the aim of this study was to develop a framework for an integrated river catchment management plan for Sg. Maong. An integrated catchment management is the process of formulating and implementing a course of action involving natural and human resources in the catchment (Easter et al. 1993).

### **Materials and Methods**

Sg. Maong is the largest subcatchment of Sg. Sarawak covering an area of nearly 40 km<sup>2</sup> (Fig. 1). with two tributaries, Sg. Maong Kiri and Sg. Maong Kanan. Data were collected through literature search, site observations, and interviews between April and August of