

W&RBM NEWS

Newsletter of the IWA Specialist Group on WATERSHED & RIVER BASIN MANAGEMENT

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Editor: Matthias Zessner

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If you want to be a volunteer, or if you have any general enquiries about W&RBM or articles for the newsletter, please contact the newsletter editor, Matthias Zessner. But please feel free to contact any of the committee members at any time

Deadline for submission for contributions for the next newsletter is May 15 2010

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4.) THE WATER QUALITY OF THE LUPAR AND AI RIVER SYSTEMS (SARAWAK, MALAYSIAN BORNEO) IN LIGHT OF INCREASING ANTHROPOGENIC ACTIVITY AND THE SOCIAL IMPLICATIONS.

Richard Herbert¹, Maeve Lohan², Zaki Zainudin³

Project Outline

Historically, populations across Malaysia settled next to rivers in order to provide and safeguard essential goods and services such as a source of drinking water, protein food resources, areas for washing, sanitation and transportation. Settlements along the Lupar and Ai rivers (Figure 1) are no exception, and have retained a high level of dependence on river ecosystems to provide these goods and services to varying degrees. Changes in land use and development in the river basin has caused adverse affects on the river water quality. The study will provide a tool for planning, development and infrastructure reviews in the region, and essentially an ecosystem based approach to river basin management (RBM).

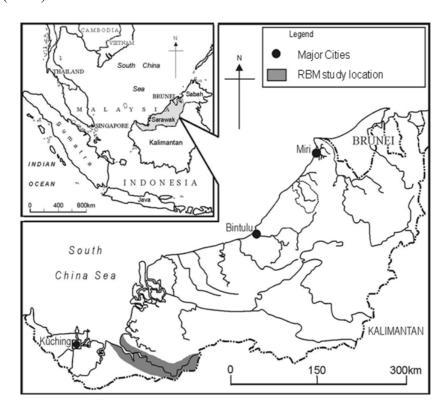


Figure 1 - Area of Study, Sri Aman Province, Sarawak

The objective of the study is to quantify the river dependency of local communities through independent surveys, and produce a water quality assessment. The investigation will highlight the sustainability of the riverine goods and services that ultimately will safeguard human health in the region and ascertain the most affected areas where infrastructure improvements are of great importance for the future of the community. The water quality was monitored using a chemical

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approach and the data analysed against current values recorded on behalf of the Malaysian Department of Environment. To what extent has the water quality been altered by in the region, and what are the environmental and social implications of further anthropogenic developments in the river basin?

During September and October 2009, I collected the data through surveys in selected Iban longhouse communities, consulting the Tuai Rumah (longhouse chief) and taking in-situ water quality readings. Water quality assessments identify potential sources of discharge, whilst the community research implies that there is a growing need for infrastructure improvements related to the provision of clean piped water, increased road access and energy generation for specific locations. Such improvements would reduce the vulnerability of communities affected by the varying quality of an essential natural resource.

Implementing such techniques for RBM are essential in supporting sustainable community and land based progression in developing countries, can help to resolve conflicts in the river basin, and help to prioritise state funding for infrastructure projects. They are also an important method of communicating local needs.

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