

Water Statistics in the Mekong River Basin

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The Mekong River Commission holds significant amounts of hydro-meteorological and water quality time-series data, and maintains networks for regular collection of historical and operational hydro-meteorological, and water quality data.

Water statistics are used for flood forecasting and river monitoring, in comprehensive studies for development of the basin development plan, on water utilisation, environmental assessments, and for determination of patterns that govern hydrological and meteorological events such as floods and droughts.

The hydro-meteorological database comprises of more than eight hundred stations and data from as early as 1910 are kept.

MRC monitors water quality at 100 sites along the Mekong. Samples are collected and analysed by national laboratories, but validated and kept at MRCS. A specific problem for water quality statistics is quality control of the analyses.

In water balance modelling, water usage is one significant input. Due to limitations in water demand statistics, domestic/industrial and irrigation demands were estimated; based on rate per capita and using crop models and model input such as crop irrigation area and crop pattern/calendar.

Reliability, timeliness and continuity of data collection, linked to sustainability of existing networks, are pertinent issues. Technical and human resources and capacity in the region needs improvement, to fulfil future demands on data quantity and quality. Institutional strengthening and training of riparian staff in data collection and management, analysis, QA/QC etc will address these issues.