

# Report on the Myanmar Education Management Information System Needs Analysis Study, November 2005

## Executive Summary

In common with many other developing countries, Myanmar is facing difficult challenges in providing for a rapidly increasing school age cohort, improving access and participation rates in all levels of schooling, improving education efficiency and effectiveness, and enhancing education quality. Meeting these challenges will require improved operational management and education planning which would be greatly facilitated by a comprehensive Education Management Information System (EMIS) that provides valid, reliable and timely data.

The present EMIS is very labor intensive, error prone, incomplete, not integrated, untimely and fails to meet the reasonable needs of many groups within the Ministry. It should be replaced as soon as possible.

Consequently, this report proposes that a new system, referred to as MEMIS (Myanmar Education Management Information System), be implemented. MEMIS is characterized by two way information flows within and between levels of administration. It decentralizes processing, storage and reporting to the township level whilst still retaining strong central control over every aspect of system design, maintenance and implementation.

## Summary of Findings, Conclusion and Recommendations

Myanmar Education Management Information System (MEMIS) contains the following three computer-based and integrated sub-systems:

- TEMIS (Township Education Management Information System)
- SEMISIDEMS (State/Division Education Management Information System), and
- WEMIS (National Education Management Information System)

TEMIS holds detailed data on every school, student, and teacher in the township, together with learning achievement and budget data. The TEMIS database would be updated by monthly transactions - that is, only change data would be processed each month thus reducing form-filling work at schools and townships, and data entry work in the TEOs, SEO/DEOs, DBEs and DEPT.

Every month, statistical summaries would be extracted from the TEMIS database and sent on CD to the relevant SEMIS/DEMIS, where further data aggregation would occur and statistical summaries sent to NEMIS.

At each level in MEMIS there would be an associated Decision Support System (DSS) tool set appropriate for that level. For example, TEMIS would be interfaced with UNESCO's decentralized education planning models, and with Geographic Information Systems (GIS) software for mapping school catchment areas. Similarly, SEMIS/DEMIS and NEMIS would have tools such as SPSS (a statistical analysis package) and data transfer programmes for exporting database tables to SPSS in their DSS. NEMIS would be interfaced with UNESCO's national education planning model and the UN's DevInfo software for thematic mapping on a

national scale of crucial education indicators such as those that measure progress against Education for All (EFA) and Millennium Development Goals (MDG) goals.

MEMIS has the potential to lift management knowledge and skills across the Ministry and thus increase the effectiveness of education management across the country.

More broadly, the township component of TEMIS could be conceptualized as a social sector township management and planning information system by incorporating health information at the township level in the TEMIS database. As a minimum that would ensure that education and health managers and planners use the same basic population data.

This broader integrated approach would have substantial resource sharing benefits. For example, there would need to be only one set of hardware and one management structure in each township covering both EMIS and HMIS, one set of DSS software tools, and one GIS with education and health data at village level. Given the scarcity of trained personnel, this would have obvious advantages.

The following recommendations are made in the report:

- It is recommended that the Ministry of Education, assisted by its development partners, design, build and implement all three major components of MEMIS, notably TEMIS, SEMIS/DEMIS and NEMIS.
- It is recommended that the Ministry implement MEMIS in a phased manner, starting with TEMIS in one large township that has a mixture of urban and rural schools, and to monitor closely the operation of that system for one year before committing to full implementation of MEMIS.
- It is also recommended that at the end of one year of operation a Post Implementation Review (PIR) be conducted to evaluate the appropriateness of the concept and the efficacy of the system. It is expected that the lessons learned in that year would be invaluable in scaling up the system at national level.
- It is strongly recommended that a strategic design study be undertaken with a view to assessing the feasibility of developing an integrated education and health database system at township level within the overall design of MEMIS.

## **Research Geographic Coverage by Area**

The study covers the Education Management Information System of Myanmar, with interviews with key staff in the Department of Education, Planning and Training (DEPT) and the Departments of Basic Education (DBEs) located in Yangon.

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