

## TECHNICAL ASSISTANCE COMPLETION REPORT

Division: MKAE

Division: MRC&E

<b>TA No. and Name</b> TA 5899-REG: Subregional Environmental Monitoring and Information System Phase II (SEMIS II)			<b>Amount Approved:</b> \$ 600,000	
			<b>Revised Amount:</b> \$ 600,000	
<b>Executing Agency</b> ADB and Regional Resource Center for Asia and the Pacific of United Nations Environment Programme (UNEP-RRCAP)		<b>Source of Funding</b> Japan Special Fund - \$100,000 Government of Norway - \$500,000		<b>TA Amount Undisbursed</b> \$247,010
				<b>TA Amount Utilized</b> \$352,990
<b>Date</b>			<b>Completion Date</b>	
<b>Approval</b> 29 Dec 1999	<b>Signing</b> 25 Feb 2000	<b>Fielding of Consultants</b> Jul 2001	<b>Original</b> Dec 2001	<b>Actual</b> Sep 2003
			<b>Closing Date</b>	
			<b>Original</b> Dec 2001	<b>Actual<sup>a</sup></b>
<b>Description</b> Greater Mekong Subregion (GMS) countries <sup>b</sup> share common natural resources, environmental conditions, forest ecosystems, watersheds, large rivers, and coastal zones. Consequently, development initiatives, natural resources use and management practices in one country often affect its neighbors, giving rise to environmental concerns that go beyond the national jurisdictions. Therefore, decisions related to natural resources use need to be based on up-to-date and accurate information, available in a timely manner. The Asian Development Bank (ADB) recognized this need in the GMS and funded \$1 million under the first phase of the Subregional Environmental Monitoring and Information System in the GMS (SEMIS I, 1995-1998). On completion in June 1998, the Project was rated as “generally successful”. The main accomplishments of SEMIS I included (i) capacity building of GMS countries for collecting, collating, and data sharing; (ii) removal of technical barriers such as incompatibility of definitions and standards that hindered data exchange among GMS countries; and (iii) skills development and information exchange through well-organized workshops. At the 4 <sup>th</sup> Meeting of the GMS Working Group on Environment in March 1998, GMS governments requested ADB and the United Nations Environment Programme for a follow-up project to SEMIS I, which should focus on implementing the subregional environmental information system. The GMS Ministerial Meeting held in Manila in September 1998 endorsed the request and the project was approved by ADB on 29 December 1999.				
<b>Objectives and Scope</b> The overall objective of SEMIS II (the Project) was to make environmental and natural resources use data available in a user friendly and timely manner to support integrated economic and environmental planning in the subregion. Building on the accomplishments of SEMIS I, the key objectives of the Project included: (i) increase the capacity of national governments to take informed decisions regarding development investments related to sustainable utilization of natural resources; (ii) enhance the ability of GMS countries to conduct integrated economic and environmental planning; (iii) assess the availability of relevant data for planning purposes, (iv) strengthen the capacity of GMS countries to collect accurate data; and (v) conduct, store, and share empirical data for integrated planning using the data collected in pilot projects for some “hotspot” areas, such as those identified in TA 5783–REG: <i>Strategic Environmental Framework for the GMS</i> . SEMIS I defined the core dataset and meta-data format. SEMIS II assessed the availability of the required data, and used the meta-data format for data entry into the core data base. Key Project activities included: (i) an assessment of available data for further development of subregional and national data bases to be used for addressing the cross-border issues in the GMS; (ii) review of the current mechanism for collecting existing core data within each country to determine the best approach to strengthen ongoing data collection, storage, and transmission to other users; (iii) capacity building through training seminars to upgrade skills base and collect appropriate data needed for planning; (iv) development of mechanism for exchange of public domain data/information through the internet with links to existing operational homepages; (v) conduct pilot case studies, such as environmental planning for energy development, using the data collected; (vi) organizing workshops to disseminate best practices to use information, and integrated economic and environmental development plans (IEEDP); and (vii) updating existing GIS data base and generating new sets of land cover data. Production of the GMS Environment Atlas, which was not envisaged at the design stage, provided an added impetus to upgrade the environmental data bases, and put to practice the newly gained information and skills. The Atlas was circulated to the GMS Working Group on Environment and National Coordinators, who provided elaborate suggestions. This shows the continued relevance and importance of the TA to GMS decision makers.				

<sup>a</sup> TA account is still open due to payment for Atlas publication.

<sup>b</sup> GMS countries include Cambodia, Lao People's Democratic Republic, Myanmar, Yunnan Province-People's Republic of China, Thailand and Viet Nam.

### **Evaluation of Inputs**

UNEP-RRCAP, in cooperation with the environmental and natural resources agencies of GMS countries, was the executing agency for the Project. To ensure that the Project could be effectively implemented, Project Coordination Committees at the national and subregional levels were established. A full-time Project Coordinator and two full-time research assistants were appointed by the UNEP-RRCAP to undertake data structure design and data base development. Three individual consultants were recruited to assist UNEP-RRCAP for developing IEEDP manual and the associated data base. Likewise, each GMS country provided at least six person-months input for SEMIS II activities. The TA design and inputs of the consultants were found adequate, and the consultants overall performance was satisfactory.

UNEP-RRCAP has adequately provided administrative and logistical support for the implementation of the Project, particularly in training courses and workshops. The emergence of a "consortium" of development partners during TA implementation added value by allowing regional institutions to work together. Common activities undertaken by the consortium included data base design, data collection and setting up of mutually compatible data sharing and exchange protocols and systems. Multiple institutional involvement also increased the sustainability of the TA activities as many participating agencies have now access to the meta-data bases.

TA implementation was originally planned for 24 months. The consultants were fielded in July 2001 so the completion date should have been August 2003. Revised TA completion date to December 2003 was due to delays in the preparation of the Agreement on project implementation between ADB and UNEP, which was finalized on 16 February 2000. Furthermore, preparation of the GMS Environment Atlas needed additional data collection, and involved several agencies and organizations. This process has taken longer than expected, and is expected to be completed by December 2003.

### **Evaluation of Outputs**

The main outputs were consistent with the original objective and scope of work, and are summarized as follows:

- (i) improved institutional and organizational coordination and cooperation: The TA was implemented through a successful "consortium" based on networking and information exchange among UNEP, MRC, and ADB;
- (ii) based on the needs analysis and case studies, the Project developed tool kits including guidelines and methodologies for environmental and natural resources development, and integrated economic and environmental development planning;
- (iii) the TA provided assistance to several science, technology and environment ministries in restructuring their data base and decision-support systems;
- (iv) guidelines and manuals on geo-spatial data collection and management were prepared;
- (v) a GIS data base for the GMS was implemented;
- (vi) 3 regional training courses and 12 national workshops were held to disseminate TA findings;
- (vii) the GMS Environment Atlas, as well as a website dedicated to SEMIS II were created and will be maintained on a regular basis ([www.rrcap.unep.org/semis](http://www.rrcap.unep.org/semis)).

The Project also provided each GMS focal agency with necessary hardware/software/equipment and training based on a formal needs assessment.

### **Overall Assessment and Rating**

The TA is rated as successful. The rating is based on the following: (i) TA strengthened data collection and management in GMS countries through a consortium of development partners; (ii) provided mechanisms to share information on environmental and natural resources use among GMS countries in a timely manner, which not only reduced data collection costs but also enriched the data base of each country; (iii) upgraded skills and knowledge base of a large number of line agency staff, facilitated harmonization of data collection and exchange protocols across sectors and countries; (iv) helped prepare and disseminate the GMS Environment Atlas, and (v) enhanced broader understanding of opportunities and risks related to the environment/natural resources sectors, and implications for sustainable development in the GMS.

### **Major Lessons Learned**

The following four lessons were learned from project implementation: (i) a "consortium" for the implementation of regional TA in the GMS is an efficient approach that could be replicated; (ii) hands on engagement of ADB staff in project implementation is necessary to maintain project focus and effective implementation; (iii) implementation period should be commensurate with the scope and needs of the Project, particularly when multiple countries/agencies are involved, and new technologies/methodologies are being introduced; and (iv) end users should be involved in project implementation from an early stage and in a planned manner.

**Recommendations and Follow-Up Actions**

Based on the experience of project implementation and suggestions from GMS partners, follow-up actions listed below were proposed:

- (i) Substantial data gaps still exist at the national level, specifically data identified as core datasets during SEMIS I. A coordinated effort is needed to address these data gaps, and for integrating environmental and socio-economic data;
- (ii) IEEDP is seen as the foundation for operationalizing integrated environment and economic planning. However, data on many environmental and socioeconomic subsectors are insufficient. Moreover, data structure design should be compatible with diverse needs and capacities of each GMS country;
- (iii) Procedures for data access and information exchange need to be simple and user friendly. SEMIS II operating procedures should be improved to use state-of-the-art communication technologies;
- (iv) Capacity in GMS countries for data, information and knowledge management still needs strengthening to ensure SEMIS II sustainability; and
- (v) The adequacy of the regulatory framework needs to be reviewed to ensure that no policy or regulatory incompatibilities will constrain function of SEMIS II in the long run.

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