

## TECHNICAL ASSISTANCE COMPLETION REPORT

Division: OREI

<b>TA No. and Name</b> RETA 6070: Capacity Building for Implementing Early Warning Systems in ASEAN+3 Countries			<b>Amount Approved:</b> \$250,000	
			<b>Revised Amount:</b> \$250,000	
<b>Executing Agency:</b> Asian Development Bank		<b>Source of Funding:</b> TASF	<b>Amount Undisbursed:</b> \$2,084.11	<b>Amount Utilized:</b> \$247,915.89
<b>TA Approval Date:</b> 13-Dec-2002	<b>TA Signing Date:</b> N.A.	<b>Fielding of First Consultant:</b>  21-January-2004	<b>TA Completion Date</b> <b>Original:</b> 30-Jun-2004 <b>Actual:</b> 30-Jun-2007 <b>Account Closing Date</b> <b>Original:</b> <b>Actual:</b> 31-Jul-2008	
<b>Description</b> <p>1. In 2001, the ADB approved a small-scale regional TA (RETA 5986) to develop a regional Early Warning System (EWS) prototype for detecting region-wide economic and financial vulnerabilities in the ASEAN+3. This TA builds on the initiatives undertaken under RETA 5986. It aims to assist participating countries in implementing the EWS prototype developed under the earlier TA, by modifying the prototype into country-specific EWS models, and enhancing the capabilities of government officials in operating the EWS models.</p>				
<b>Expected Impact, Outcome, and Outputs</b> <p>2. The TA supports the enhancement of financial and economic monitoring, and the exchange of information among ASEAN+3 countries. It aims at attaining greater economic and financial stability and sustained growth in East Asia through enhanced regional monetary and financial cooperation.</p> <p>3. It is expected that government officials and staff from participating countries will be proficient in operating the country-specific EWS models and in conducting data analyses, to facilitate the early detection of any accumulating weaknesses or vulnerabilities in the economy.</p> <p>4. The outputs expected under TA 6070 are (1) the country-specific EWS models developed from the regional EWS prototype created under TA 5986; (2) a special computer software necessary for the operation of the EWS models and the operational manuals; (3) a secured website for model users to download data; (4) a database on macroprudential indicators; and (5) extensive utilization of EWS models among participating countries.</p>				
<b>Delivery of Inputs and Conduct of Activities</b> <p>5. One international consultant and three local consultants were employed under the TA. Two economists helped operate the EWS models, and collect data for the EWS database. One computer programmer was also hired to develop a Windows-based interface for the enhanced Vulnerability Indicators and Early Warning System for Economic and Financial Monitoring (VIEWS) package, and to train NSU staff on the interface. An editor (international consultant) was also employed to help prepare the user guide for the EWS software for the parametric and nonparametric models. Several extensions of the TA completion date were requested to accommodate requests by participating member countries of the Technical Working Group on Economic and Financial Monitoring (ETWG) for ADB to continue website maintenance and provision of on-site training, and updating the database. The use of consulting services under the TA had been carried out in accordance with the respective guidelines.</p> <p>6. Computers and other equipment were provided to NSUs and Ministries of Finance for the operation of the EWS models. Five laptops (Cambodia, Thailand, and PRC NSUs), nine desktops (Cambodia and Indonesia NSUs), and one printer (Cambodia NSU) were provided under the TA. Three laptops and one Infocus Projector were also procured and used by RETA consultants at the ADB headquarters for purposes of conducting EWS activities.</p> <p>7. Three major workshops were conducted under the TA, while several visits to NSUs and Ministries of Finance were also held for the EWS installation, provision of preliminary on-site training and follow-up training on operating the EWS. The regional workshops and series of on-site training provided an excellent venue for stakeholder participation, and facilitated sharing of inputs and insights for the improvement/modification of the model.</p> <p>8. The performance of the experts and consultants hired for the project was satisfactory, though their</p>				

engagement in the TA has been extended over the course of the TA to continue performing the originally outlined tasks, and similarly to deliver additional TA outputs that have been included over the life of the TA.

### **Evaluation of Outputs and Achievement of Outcome**

9. The regional EWS prototype model has been successfully modified into country-specific EWS models, to suit the distinct characteristics and circumstances of participating countries. These country-specific EWS models have been used by participating DMCs to detect any weaknesses in the economy.
10. A computer software to operate the EWS models, VIEWS, has been developed and successfully installed in the NSUs located in the Ministries of Finance, or Central Banks of participating DMCs. Both the database and a website for downloading latest data have also been developed, and are currently being maintained and updated for the perusal of participating countries. Generally, the EWS software received positive feedbacks, and has been found to be very useful and user-friendly.
11. A series of on-site training on VIEWS, and subsequent follow-up training on the operation of the EWS have been successfully conducted. Officials from the monetary authorities (i.e., Central Banks) and Ministries of Finance have participated in the training and workshops and are now able to operate the EWS models.

### **Overall Assessment and Rating**

12. Overall, the TA was successful in accomplishing the outlined tasks and deliverables. The EWS models are up and running in participating countries, and have been helping participating DMCs monitor economic developments and detect emerging economic and financial vulnerabilities in the region. The TA has also helped promote the exchange of information among ASEAN+3 countries. However, the extended implementation period may have reduced effective delivery of outputs, as this resulted in the assignment of TA management to different ADB staff over the course of the TA, which have resulted in problems related to proper turn-over of TA tasks.
13. The EWS training also enjoys a wide reach among government officials and staff from participating DMCs, being a major component of OREI's regular Regional Economic and Financial Monitoring (REFM) Training activities. About 170 government officials from participating DMCs have been trained on the EWS models and VIEWS under the REFM. An increasing number of government officials are thus now proficient in operating the country-specific EWS models, to monitor economic developments and detect any emerging weakness in the economy.

### **Major Lessons**

14. The successful implementation of the TA confirms the importance of extensive consultations and coordination with the implementing agencies or end-users of the TA outputs, so as to gain useful insights on how preliminary outputs may be improved.
15. A number of officials from NSUs and Ministries of Finance originally trained to operate the country-specific EWS models have been replaced by a new set of officials in the later stages of TA implementation, which entailed the provision of another round of EWS on-site training in the NSUs. However, while this increased the TA's training expenditure, it nonetheless increased the number of trained officials in each participating country who understand and are capable of operating the EWS models.
16. The implementation period, which ran longer than was originally proposed, resulted in the assignment of TA management to different ADB staff. This might have resulted in problems related to proper turn-over of TA tasks, along with less TA ownership and accountability.

### **Recommendations and Follow-Up Actions**

17. ADB should continue providing assistance in the regular maintenance of the secured EWS website, and the database of macroprudential indicators. Additional indicators may also be included in the database if needed.
18. The EWS models and the accompanying VIEWS software should also be continuously improved and updated to keep up with the rising complexities resulting from increased economic and financial integration. Capacity-building activities through regular conduct of EWS-related training and workshops should be continued to improve DMCs' capacity for economic and financial monitoring. These tasks are currently being implemented under RETA 6391, which builds upon the initiatives taken under this TA.

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