

## TA COMPLETION REPORT

Division: Environment

<b>TA NO./NAME:</b> TA No. 2704-VIE: Hazardous Waste Management				<b>TA AMOUNT APPROVED:</b> \$600,000	<b>SOURCE:</b> JSF
<b>EXECUTING AGENCIES:</b> National Environment Agency (NEA)				<b>REVISED AMOUNT:</b>	
				<b>TA AMOUNT UNDISBURSED:</b> \$775.66	<b>TA AMOUNT UTILIZED:</b> \$599,224.34
<b>DATE:</b> 23 November 1999	<b>APPROVAL:</b> 12 December 1996	<b>SIGNING:</b> 2 January 1997	<b>FIELD:</b> 14 July 1997	<b>CLOSING:</b> <b>ORIGINAL:</b> 31 May 1998 <b>ACTUAL:</b> October 1999	
<p><b>TA DESCRIPTION (Background/Rationale)</b>            Given the high rate of industrial growth experienced in the country (12.5 percent annual growth rate in 1994) and the consequent expected high rate of the country's toxicity intensity (14 percent annual growth rate during 2000-2010), the Government needs to adopt appropriate coordinating, legislative and regulatory measures at the national level for the environmentally sound management of hazardous wastes. It is also necessary to prepare and maintain inventories of hazardous wastes and treatment/disposal sites, as well as of contaminated sites that require rehabilitation, and assess exposure and risk to human health and the environment. The Government needs to also establish appropriate management system for the storage, transport, treatment and disposal of hazardous wastes, and encourage the development of industries in these fields, taking account of the practices of other Southeast Asian countries.</p> <p><b>TA OBJECTIVES AND SCOPE</b>            The main objectives of the TA were to (i) assist the Government in establishing an appropriate management system on hazardous wastes, and (ii) strengthen the technical capability of the Government in promoting sound hazardous waste management. The TA included the following major components: (i) audit of hazardous wastes to understand the current status of the problems on hazardous wastes and future trends; (ii) recommendations on institutional and legislative systems for hazardous waste management based on the review of existing laws and regulations in the country and current systems of other selected Southeast Asia countries; (iii) proposals on (a) an information system for hazardous waste management, (b) the application of waste minimization technology and clean technology in selected industries, and (c) the most cost-effective and technically viable option for collection, treatment and disposal; (iv) formulation of a national strategy for the management of hazardous wastes up to the year 2010, in particular, in major industrial areas; (v) training programs for capacity building of Government officials, academic and industrial community; and (vi) provision of computers and other equipment necessary for the implementation of the TA.</p> <p><b>TA INPUTS EVALUATION</b>            The TA was implemented by a team of international and domestic consultants. A total of 15.17 person-months of international consultants and 26.50 person-months of domestic consultants services were utilized. The consultants generally performed well and adhered to the terms of reference. While the final report was received without significant delay, the completion of the TA was extended because, as a result of the TA, the Government put in place new regulations on hazardous waste management, and an additional workshop for senior officials was conducted to familiarize them with the provisions of the regulations.</p> <p><b>TA OUTPUTS EVALUATION</b>            The TA outputs comprised of 3 volumes of technical reports on Viet Nam National Strategy for Hazardous Waste management: Vol. 1: Policy and Strategy; Vol. 2: Strategy Support Documents; and Vol. 3: Main Report. These volumes together develop a comprehensive hazardous waste management strategy for Viet Nam, covering inventory and audit of hazardous waste, institutional and legislative development, technological examination, development of a national strategy, and reports of training conducted. Additionally, the outputs comprised "on-the-job" training for domestic consultants and Government officials, and two main training workshops (Hanoi and HCM City) for central and provincial government officials, and managers and technical staff from various agencies. Finally, a study tour to Hong Kong and Thailand was organized for senior officials and government experts to learn from the experience of other Asian countries in respect of hazardous waste management. The training workshops resulted in transfer of a large volume of knowledge and experience in waste management, especially hazardous waste management for persons in charge of developing policy, environmental management, and researchers, and industries. They also</p>					

provided a good opportunity for the consultants to obtain feedback and comments on current practices in the country from participants, and enhanced the influence of NEA staff with the provinces and other ministries. The feedback from the study tour from the participants was that the tour was useful for application in their work of environmental management in general, and in the development of the legal documents in the project.

#### **TA OVERALL ASSESSMENT/RATING**

The TA has assisted NEA in developing a comprehensive policy and strategy for hazardous waste management in the country, besides enhancement of technical skills and understanding of policy and operational aspects of hazardous waste management. The TA has also helped develop appropriate regulations, which have since been promulgated, testifying to the effectiveness of the TA in meeting its objectives. The TA is, accordingly, rated as generally successful.

#### **MAJOR LESSONS LEARNED**

The TA has underscored the importance of consultants and Government staff working collaboratively in developing a major environment related national policy and strategy. In particular, the swift adoption of the proposed regulatory framework by the Government attests to the effectiveness of such relatively direct involvement of EA staff in formulation of TA proposals, including legal drafting instructions. The full implementation of the proposed strategy would, however, require follow-up support by the ADB and other agencies, including investment components.

#### **FOLLOW-UP ACTION AND RECOMMENDATIONS**

The Government has initiated follow-up with the adoption of hazardous waste regulations, and taking the initiative in convening a national workshop, as an additional TA activity, to familiarize senior officials from other concerned ministries with the outputs of the TA and the new regulations. It has also indicated interest in receiving further support from the ADB in full implementation of the TA recommendations.

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