



## Completion Report

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Project Number: 47044-001  
Technical Assistance Number: 8421  
March 2016

# People's Republic of China: Eco-Compensation Mechanism and Policy Framework Study for the Xiangjiang River Watershed of the Chang–Zhu–Tan City Cluster

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TA Number, Country, and Name:			Amount Approved: \$625,000.00	
TA 8421-PRC: Eco-Compensation Mechanism and Policy Framework Study for the Xiangjiang River Watershed of the Chang–Zhu–Tan City Cluster			Revised Amount: not applicable	
Executing Agency: Hunan Provincial Chang–Zhu–Tan Resource-Conserving and Environment-Friendly Society Office (RES)		Source of Funding: TASF–Others: \$400,000.00 Multi-Donor Trust Fund <sup>a</sup> under the Water Financing Partnership Facility: \$225,000.00	Amount Undisbursed: \$56,041.88	Amount Utilized: \$568,958.12
TA Approval Date: 5 August 2013	TA Signing Date: 2 September 2013	Fielding of First Consultant: 12 March 2014	TA Completion Date Original: 31 March 2015 Account Closing Date Original: 31 March 2015	Actual: 30 September 2015 Actual: 22 December 2015
<b>Description</b> The technical assistance (TA) aimed to address gaps in the regulatory and policy framework for an eco-compensation mechanism for the Xiang River watershed in Chang–Zhu–Tan (CZT) city cluster through analyses of ecological characteristics, threats, and/or mitigation; cost–benefit analysis and other economic analyses; and specific eco-compensation requirements. The TA was designed to build upon previous Asian Development Bank (ADB) work in the People's Republic of China (PRC) on eco-compensation, as well as incorporate international experience for using eco-compensation to support integrated river basin management and provide decision-making support and recommendations to the Hunan Provincial Government (HPG) in the construction of a resource-saving and environment-friendly society in the CZT experimental zone. <sup>b</sup> Hunan Province is noted for its agricultural capacity and mineral deposits; but environmentally-sustainable development is currently at risk from industrial pollution, high rates of natural resource extraction, and land conversion. The CZT city cluster is typical of this situation where rapid industrialization of secondary (e.g., smelting, manufacturing, and food processing) and tertiary (e.g., culture, sports, and entertainment) industries has resulted in a severely degraded ecosystem. Most at risk is the Xiang River basin, which is the watershed for and a major transportation link throughout the CZT city cluster, and serves as the primary water source for domestic and industrial users in the CZT city cluster. The health and ecosystem of this river basin is threatened by pollution, over-extraction of resources, and conversion (e.g., from a forest ecosystem to a grassland ecosystem). Ecological services are required to maintain water quantity and quality, air purification, pollination, and biodiversity habitat. To address constraints to environmentally-sustainable growth, HPG sought to establish a mix of well-developed strategies and policies, including pollution control, appropriate land use, natural resource conservation, and financial incentives. A well-developed eco-compensation mechanism can help support HPG's efforts. Eco-compensation in the PRC is a public mechanism through which policies and programs aim to promote environmental protection and restoration through providing financial incentives to upstream landholders and users.				
<b>Expected Impact, Outcome, and Outputs</b> The expected impact of the TA was improved environmental quality in the Xiang River watershed of the CZT city cluster, and the expected outcome was a strengthened eco-compensation mechanism and policy framework to improve water quality and abundance in the Xiang River watershed. The TA outputs were (i) completed analyses of environmental threats to water quality and abundance, including their interrelationship with natural resources and land use in the Xiang River watershed; (ii) recommendations for the design and implementation of an eco-compensation mechanism and policy framework; and (iii) strengthened government capacity in the environmentally-sustainable use of natural resources and land to improve water quality and abundance.				
<b>Delivery of Inputs and Conduct of Activities</b> The TA was carried out by a firm comprised of four international and 11 national consultants. The TA involved 10 person-months of international consulting services. The national consultants' inputs were adjusted from 42 person-months to 48 person-months of consulting services, with the inclusion of three additional national consultants also provided by the firm. Responding to the technical complexity of the TA and addressing additional tasks that were identified during TA implementation, the three national consultants were added to provide local expertise in the fields of water policy, macroeconomics, and meteorology. The performance of the consulting firm was rated as generally satisfactory. The consultants provided initial recommendations for the eco-compensation mechanism and policy framework, which identified priority environmental issues and preferences for local management activity based on survey results and the consulting team's study. Through consultation meetings and workshops, the final eco-compensation mechanism was refined to produce the policy framework; and recommended activities include an assessment of the cost- effectiveness of actions and follow-up action plan. Workshops conducted were highly effective with stakeholder (government, civil society organizations, nongovernment organizations, and community) participation because relevant sector agencies were able to review the consultant's report prior to the workshops and have provided constructive input and/or feedback during the workshops.				

The executing agency's performance was satisfactory. The executing agency provided counterpart staff, office space, and logistical support; coordinated the circulation of the TA progress reports; and collated feedback and/or comments from various agencies and departments of HPG, as well as provided guidance on quality and expectations for the TA outputs.

ADB provided guidance and fielded timely missions for the inception, interim, and final reviews. ADB's overall performance was satisfactory.

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

The TA produced the expected outputs which were approved by ADB and RES, including the inception, interim, and final reports, as well as a draft knowledge product entitled "Eco-Compensation Schemes in Xiang River Basin." The comprehensive final report reviewed the status and management of land and water resources in the Xiang River watershed, and provided suggestions and recommendations for HPG on a policy framework and implementation of eco-compensation mechanisms to improve the security of water supplies in the CZT municipal area of Xiang River watershed. This is in line with RES' requirement that the eco-compensation mechanism should be designed (i) for application throughout the Xiang River watershed, and (ii) as a pilot within the CZT area. Training provided by the TA built capacity and awareness about environmental issues, sustainable use of resources, financial analyses, and eco-compensation mechanisms and policies. These lessons were reinforced through the interprovincial study tour in which provincial officials learned about experiences on the implementation of the eco-compensation mechanism in Fujian Province. The capacity building and study tour contributed to improved understanding between and cooperation within the multi-stakeholder group as different issues were highlighted and discussed.

The immediate outcome of the TA was achieved. The proposed pilot project provided by the TA can strengthen the eco-compensation mechanism and policy framework to improve water quality and abundance in the Xiang River watershed. The government demonstrated strong ownership of the TA, and the executing agency made efforts in ensuring that the relevance of the TA outputs and deliverables contributed in achieving the desired outcome.

#### **Overall Assessment and Rating**

The TA is rated successful. All required outputs and outcome, as well as related tasks and targets were achieved. The executing agency was satisfied with the results of the TA as the pilot activities and policy framework proposed under the eco-compensation mechanism were practical and applicable to address the current constraints for improved water and natural resource management in the CZT city cluster.

#### **Major Lessons**

The Xiang River watershed faces multiple challenges due to the current state of environmental degradation stemming from poor management of past land use due to the drive for economic development. Studies from the TA were able to assess risks and impacts, and proposed actions to restore the ecosystem. However, integral to these actions was the institutional and multi-stakeholder settings as there were different priorities and interests between agencies in terms of how to manage water and natural resources within the watershed. A strong underlying component of the TA was stakeholder engagement which involved HPG agencies, civil society, communities, and nongovernment organizations who were consulted throughout the TA implementation. One of the reasons for the success of this engagement was due to the coordination and strong ownership of this process by RES; as well as the high level of preparedness by the stakeholders who were able to provide inputs to the studies and review all reports prior to fielding of review missions, which enabled them to provide detailed comments and be extensively engaged in discussions. This level of engagement contributed to the quality of the outputs as well as acceptance of the results of the studies and proposed actions.

A major challenge for the TA was the large consultant team and the coordination and sharing of results and lessons within the team to ensure cohesive outputs. It should be noted for future TA projects that additional efforts from the consultant team, especially from the team leader and the deputy team leader, are required to facilitate this process; and add such opportunities for sharing into the TA implementation work plan.

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

The outputs of the TA will be used as good reference for RES and HPG to develop an eco-compensation project in the CZT watershed. This project would establish a mechanism which increases environmental and ecological responsibility for the Xiang River and its tributaries through making payments and incentives for agreed natural resources management actions contingent on achievement of specific targets; and share the costs of environmental and ecological management among the beneficiaries and the local natural resource users and managers. This project proposal is currently being prepared by the executing agency and HPG, with the intention of presenting the project proposal to ADB and the central government for consideration for ADB loan financing.

A key feature of this TA has been the consultation with and involvement of stakeholders, from civil society and nongovernment organizations and the community, to understand their challenges and involve them in coming up with solution through proposed pilot project activities.

<sup>a</sup> Financing partners: the governments of Australia, Austria, Norway, Spain and Switzerland. Administered by ADB.

<sup>b</sup> ADB. 2011. *Eco-compensation for Watershed Services in the People's Republic of China*. Manila.