TECHNICAL ASSISTANCE COMPLETION REPORT

Division: EAER

TA No., Country and Name				Amount Approved: $600,000	
TA 8185-PRC: Pilot Implementation of the Drought Management Strategy				Revised Amount: n/a	
Executing Agency Ministry of Water Resources	**Source of Funding** TASF-other sources ($400,000) and the Multi-Donor Trust Fund under the Water Financing Partnership Facility ($200,000)[1]			**Amount Undisbursed:** $4,989.38	**Amount Utilized:** $595,010.62
TA Approval Date:	**TA Signing Date:**	**Fielding of First Consultant:**	**TA Completion Date** **Original:** 11 July 2014	**Actual:** 31 August 2014	
8 October 2012	31 October 2012	25 March 2013	**Account Closing Date** **Original:** 29 December 2014	**Actual:** 29 December 2014	

Description:

The People's Republic of China (PRC) has a long history of fatalities from droughts, and faces intensifying pressure on water resources from continued economic development, population growth, urbanization, and climate change. Water scarcity is causing conflict and competition between water users, and relatively small changes in rainfall are increasing impacts on supply availability. To establish an integrated drought management strategy, in 2009, Asian Development Bank (ADB) provided the Ministry of Water Resources (MWR) with a technical assistance (TA) for the Strategy for Drought Management (TA 7261). TA 7261 produced a national strategic framework for drought management and an action plan for implementing integrated drought management. Based on these outputs, the MWR prepared a national anti-drought plan that included a drought management strategy and an action plan. The key recommendation of TA 7261 was to shift from reactive emergency response to proactive risk management. ADB awarded TA 7261 for outstanding achievement under the TA Award Program.[2] The MWR requested that a new TA be provided to pilot and develop tools for managing drought risk, strengthen the capacity of officials involved in drought management, prepare detailed and tailored plans to manage drought risk for pilot provinces (Gansu, Liaoning, and Sichuan),[3] and prepare guidelines for implementing the national drought management strategy across the PRC.

Expected Impact, Outcome and Outputs

The expected impact of the TA was improved and sustained drought management in the PRC. The expected outcome of the TA was the changes in drought management from reactive emergency response to proactive risk management demonstrated in the three pilot provinces. The expected output of the TA was strengthened capacity of the flood control and drought relief headquarters in the three pilot provinces to manage drought risk. Specifically the TA was designed to produce (i) tools for managing drought risk; (ii) a program of institutional and capacity development for managing drought risk and saving water, and an educational and public awareness program for water saving; (iii) a detailed and tailored plan for managing drought risk in each pilot province; and (iv) guidelines for implementing the national drought management strategy across the PRC.

Delivery of Inputs and Conduct of Activities

The TA was carried out by a team of consultants engaged by using quality- and cost-based selection method. The inputs of the international and national consultants were adjusted from 10.0 person-months to 10.49 person-months and from 24.5 person-months to 26.9 person-months, respectively, accordingly to the needs of the TA. The consultants conducted basic surveys, developed tools for managing drought risk, developed an institutional and capacity development program and an educational and public awareness program, developed a plan for managing drought risk in each pilot province, and prepared guidelines for implementing drought risk management across the PRC. The consultants worked closely with the MWR. The performance of the consultants was considered satisfactory.

A steering committee established under the MWR provided guidance for TA implementation. A TA management office established in the MWR also administered day-to-day activities of the TA and coordinated with ADB and the three pilot provinces. The MWR provided counterpart staff, office accommodation, and logistical support, and organized training and workshops. The performance of the MWR was satisfactory.

The TA amount of $600,000 was adequate. Equipment for TA consultants was procured through shopping following ADB's Procurement Guidelines[4] and handed over to the MWR. Disbursement was in line with ADB's Technical

[1] Contributors: the governments of Australia, Austria, Norway, and Spain. Administered by ADB.

[2] The program selected 10 TAs from policy and advisory TAs and capacity development TAs completed in the PRC from 2010 to 2013 for awards for outstanding achievement (2), best dissemination (2), policy support (2), innovation (2), best dissemination (1), and honorable mentions (2).

[3] These three pilot provinces have been seriously affected by drought and offer a range of locations that allow scaling up piloted and developed models and methodologies.

[4] ADB. 2013. *Procurement Guidelines*. Manila.

Assistance Disbursement Handbook.[5]

ADB provided guidance, and fielded timely missions for the TA's inception, midterm, and final reviews. ADB's performance was considered satisfactory.

Evaluation of Outputs and Achievement of Outcome

The TA produced the following expected outputs: (i) drought management tools including (a) a prototype integrated drought database,[6] (b) methodologies for drought hazard analysis and drought risk mapping, and drought risk maps for all three pilot provinces, and (c) a framework for a layered drought forecasting and early warning;[7] (ii) an institutional and capacity development program for managing drought risk and saving water,[8] and an educational and public awareness program for water saving;[9] (iii) a set of standard protocols for provincial and local drought risk management plans, a provincial drought risk management plan for each pilot province, and a comprehensive example or prototype of a local drought risk management plan; and (iv) guidelines for implementing drought risk management across the PRC. All outputs were included in the final report. The tools, programs, plans, and guidelines produced under this TA can be used as models for other provinces. Workshops were held at national-level and in the three pilot provinces to introduce concepts of drought risk management, discuss the provincial drought risk management plans, develop capacities for drought risk management, and disseminate the TA's outputs. An international study tour to Spain and Portugal was undertaken to allow PRC decision-makers to study drought management measures, particularly nonstructural drought risk management measures employed in both countries. The TA successfully achieved the intended outcome.

Overall Assessment and Rating

The TA is rated as highly successful. All activities planned under the TA were fully completed effectively with the consultants' satisfactory performance and the MWR's active participation, within the original duration of the consultancy contract. The MWR was satisfied with the TA's outputs, and committed to ensure that the outputs including the tools, programs, plans, and guidelines will be adopted and will continue to be used in the three pilot provinces including municipalities and districts, and disseminated to other provinces. The TA's outputs will support the PRC's Twelfth Five-Year Plan (2011–2015) to strengthen water resources management.

Major Lessons

Drought risk is more properly managed at local levels, since such a management is intrinsically connected to water use and control which are parts of local water management. Since resources and capacity are often limited at local levels, there is a need for higher level organizations to take on a greater role initially, and greater effort need to be put into developing capacity at local levels and developing local drought management plans.

Recommendations and Follow-Up Actions

It is recommended that (i) the tools, programs, plans, and guidelines produced under the TA continue to be used in the three pilot provinces including municipalities and districts, and disseminated to other provinces; and (ii) capacities of local levels be developed and local drought management plans be prepared, and possibilities for ADB's assistance for these be explored.

n/a = not applicable, No. = number, TASF = technical assistance special fund.

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[5] ADB. 2010. *Technical Assistance Disbursement Handbook*. Manila.

[6] The database including precipitation data and also spatial and economic data to assess drought vulnerability was developed for Liaoning Province and introduced to the other two pilot provinces.

[7] This includes provincial-, municipal-, and district-level drought forecasting and warning systems which should be closely linked. The provincial-level drought forecasting and warning system uses meteorological drought forecasting by National Climate Center. Results of provincial-level drought forecasting and warning should be modified at municipal- and district-levels considering local data such as local natural climatic conditions, hydrology and water resources conditions, soil and geological conditions, and other specific issues (agricultural planting structure, etc.). Depending on potential severity of the forecasted drought, municipal- and district-level governments are triggered for early actions such as water savings and water allocation.

[8] The program is focused on (i) improvement of drought risk management capacities, (ii) targeted drought risk management training, (iii) evaluation of inadequacies of existing policies and regulations on drought risk management and water saving management, and (iv) development of sound policy and regulations.

[9] The program mainly includes suggestions on education and awareness methods for different organizations and groups, and budgeting for education and public awareness raising activities.