



# Project Preparatory Technical Assistance

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Project Number: 49404  
July 2016

Proposed Loan  
Viet Nam: Water Efficiency Improvement in Drought  
Affected Provinces

Asian Development Bank



## PROJECT PREPARATORY TECHNICAL ASSISTANCE

### A. Justification

1. Project preparatory technical assistance (PPTA) is required to prepare the investment project. The overall project involves modernizing eight irrigation schemes (i.e. subprojects) commanding about 33,500 ha in Binh Thuan, Dak Lak, Dak Nong, Khanh Hoa and Ninh Thuan provinces. The irrigation schemes are mainly open canal gravity schemes. There are some pumped schemes in Dak Nong and Dak Lak provinces. The government has commenced preparation of feasibility studies of the subprojects in advance of the PPTA. The PPTA consultants will review and revise the subprojects (as needed) and undertake the due diligence (i.e. technical, economic, financial, environmental and social) to meet ADBs requirements.

### B. Major Outputs and Activities

2. The PPTA team will work closely with the government teams assigned to prepare the feasibility studies of individual subprojects and the overall project. They will also work closely with the climate risk and vulnerability assessment (CRVA) team<sup>1</sup> to incorporate climate change responsive measures in designing the project. Adopting a fully consultative process, they will design outputs that meet the stated impact and outcome of the project. They will prepare the project documents required to support processing and approval of the project by ADB. They will also provide start-up support to the government to mobilize implementation consultants and for advance implementation actions.<sup>2</sup> Table A3.1 summarizes major outputs and activities.

**Table A3.1: Summary of Major Deliverables**

Major Deliverables	Due Date
Inception report	Nov 2016
Reports on agricultural sector assessment; environmental, social, poverty and gender impact assessments; and river basin water resources assessments considering present and future demands and likely climate change impacts	Dec 2016
Reports on economic and financial analyses; financial management and fiduciary capacity; gender action plans; summary poverty reduction and social strategy; initial environmental examinations; resettlement plan; resettlement framework; ethnic minority plan; and climate risk and vulnerability assessments, project procurement risk assessments and risk management plan	Jan 2017
Representative subproject feasibility studies complying with ADB requirements; summary of the project's contribution to the ADB results framework; summary of how the project promotes development coordination; draft procurement plan and project administration manual; and master bidding documents for each type of contract	Feb 2017
Draft final report in the format of an ADB RRP	Mar 2017

ADB = Asian Development Bank, RRP = Report and Recommendation of the President.

### C. Cost Estimate and Proposed Financing Arrangement

3. The PPTA is estimated to cost the equivalent of \$1,300,000 of which \$800,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-V) and \$250,000 from the Netherlands Trust Fund under the Water Financing Partnership Facility (WFPPF) and administered by ADB. The government is financing 8 feasibility studies and will provide counterpart staff, office staff, basic office equipment and associated costs, data and office space for PPTA consultants, and domestic transport for counterpart staff. The PPTA cost estimates are shown in Table A3.2.

<sup>1</sup> The CRVA will be carried out by a separate team of consultants who will be mobilized coterminous with the PPTA.

<sup>2</sup> The PPTA consultants may be required to undertake the detailed engineering designs (DED) of 1-2 subprojects. This will be done through a variation of the contract, once the proposed financing for undertaking DED from the Project Readiness Improvement Trust Fund is secured.

**Table A3.2: Cost Estimates and Financing Plan (\$'000)**

Item	ADB <sup>a</sup>	WFPF <sup>b</sup>	TOTAL
<b>1 Consultants</b>			
<i>Remuneration</i>			
a. International Consultants	380.00	100.00	480.00
b. National Consultants	102.00	36.00	138.00
<i>Per Diem</i>			
a. International Consultants	57.00	15.00	72.00
b. National Consultants	25.50	9.00	34.50
<i>Air Travel</i>			
a. International Travel	45.00	25.00	70.00
b. Domestic Air Travel	10.80	5.00	15.80
<b>2 Equipment<sup>c</sup></b>	16.80	0.00	16.80
<b>3 Workshops and conferences<sup>d</sup></b>	20.50	30.00	50.50
<b>4 Surveys</b>	17.40	30.00	47.40
<b>5 Miscellaneous administration and support costs<sup>e</sup></b>	15.00	0.00	15.00
<b>6 Representatives for contract negotiations<sup>f</sup></b>	5.00	0.00	5.00
<b>7 Contingencies</b>	105.00	0.00	105.00
<b>TOTAL</b>	<b>800.00</b>	<b>250.00</b>	<b>1,050.00</b>

ADB = Asian Development Bank, WFPF = Water Financing Partnership Facility.

Note: The government will provide in-kind contributions with an estimated value of 20% of the total PPTA cost.

<sup>a</sup> Financed by the Technical Assistance Special Fund (TASF-V) of the Asian Development Bank.

<sup>b</sup> Administered by the Asian Development Bank.

<sup>c</sup> Equipment for office work will be procured in accordance with ADB's Procurement Guidelines (April 2015, as amended from time to time). The equipment purchased will comply with the guidelines on accountability of TA purchased assets and will include photocopier, computers, printers and communication equipment. Upon PPTA completion, the equipment will be turned over to the EA.

<sup>d</sup> Workshops and conferences include tripartite progress review meetings and policy/institutional capacity building workshops. Includes participants' travel and related logistical costs, fees and related costs for external resource persons. Fees for resource persons and facilitators, who are government officials will be covered by the government.

<sup>e</sup> Consultant's office administration.

<sup>f</sup> The user division, in consultation with OSFMD, will decide on the mode of negotiation. ADB. 2010. Specific Requirements for Recruiting Consultants by ADB. Project Administration Instructions. PAI 2.04. Manila.

Source: Asian Development Bank estimates.

## D. Consulting Services

4. The PPTA will require a consulting firm to provide 21 person-months (p-m) of international and 42 p-m of national consultants. An additional 3 p-m of international and 4 p-m of national inputs of participatory irrigation management specialists will be recruited separately by ADB through individual consultant selection. The firm will be recruited using quality- and cost-based selection procedures with a quality-cost ratio of 90:10 and simplified technical proposal according to ADB's Guidelines on the Use of Consultants (2013 as amended from time to time). Consultants should have tertiary level qualifications from a recognized institution and a minimum of 10 years' relevant experience in developing countries of Southeast Asia. Table A3.3 shows anticipated consultant requirements.

**Table A3.3: Summary of Consulting Services Requirement**

International Specialist Position	p-m	National Specialist Position	p-m
Irrigation Institutional Specialist/Team Leader	6	Irrigation Institutional (O&M) Specialist/Deputy Team Leader	6
Irrigation Engineer	5	Irrigation Engineer	6
Hydrologist	2	Water Resources Specialist	4
Environment Specialist	1	Environment Specialist	4
Social and Gender Specialist	1	Social and Gender Specialist	4
		Resettlement Specialist	4
Agronomist	1	Agronomist	3
Procurement and Start-up Specialist	2	Procurement and Start-up Specialist	3
Project Economist	2	Project Economist	4

<b>International Specialist Position</b>	<b>p-m</b>	<b>National Specialist Position</b>	<b>p-m</b>
Finance Specialist	1	Finance Specialist	4
Participatory Irrigation Management Specialist <sup>a</sup>	3	Participatory Irrigation Management Specialist <sup>a</sup>	4
<b>Total</b>	<b>24</b>	<b>Total</b>	<b>46</b>

<sup>a</sup> Will be recruited through individual consultant selection.

Source: Asian Development Bank estimates.

5. **Irrigation Institutional Specialist/Team Leader** (International, 6 p-m) and **Irrigation Institutional (O&M) Specialists/Deputy Team Leader** (National, 6 p-m). The Team Leader will assume overall responsibility for performance of the PPTA team and take a lead role in liaising with government and ADB representatives. The specialists will jointly (i) lead the discussion with relevant provincial and central government agencies on modernization of irrigation systems under the Project; (ii) undertake related capacity assessments and recommend capacity building activities; (iii) propose appropriate operation and maintenance (O&M) regimes; (iv) propose appropriate public-private partnership arrangements; (v) propose incentives and other arrangements to engage WUG in managing tertiary systems; (vi) identify appropriate mechanism to promote on-farm water saving irrigation practices; and (vii) compile all documentation required for ADB's processing and approval.

6. **Irrigation Engineers** (International, 5 p-m and National, 6 p-m) will review the feasibility studies of the 8 subprojects prepared by the government and revise them as necessary to ensure modernizing of the systems. In particular they will review the: (i) hydrologic capacity of the schemes to ensure that all water needs including minimum environmental flows are met; (ii) hydraulic calculations of the conveyance systems; (iii) means of flow regulation/measurement; (iv) adequacy of scheme modernization (particularly adoption of measures to reduce water losses and increase climate change resilience), inclusion of cross drainage measures, protection against geotechnical hazards and water-related disasters; (v) cost-effectiveness of pumping schemes; and (vi) proposed O&M measures and related costs. The specialists will undertake diagnostic tools (RAP and MASSCOTE if possible) and will propose capacity building for irrigation management companies (IMCs).

7. **Hydrologist** (International, 2 p-m) and **Water Resources Specialist** (National, 4 p-m) will work with the hydrologists of the CRVA team to review (and adjust as necessary) the provinces' water availability and water balance calculations, taking account of present and future demands and projected changes in hydro-meteorological variables determined from climate risk and vulnerability assessments.

8. **Environment Specialists** (International, 1 p-m; National, 4 p-m) will carry out due diligence of the subprojects and overall project in accordance with ADB's Environmental Operational Directions (2013). They will (i) review subproject categorization and make recommendations for improved design/implementation and mitigation measures; (ii) assist the Hydrologist/Water Resources Specialist establish appropriate environmental base flows; and (iii) prepare initial environmental examinations of each subproject and the overall project.

9. **Social and Gender Specialists** (International, 1 p-m; National, 4 p-m) will (i) carry out due diligence of the poverty and social impact assessments, and (ii) prepare Poverty and Social Impact Assessment, Summary Poverty Reduction and Social Strategy, Gender Action Plan, Indigenous Peoples Action Plan, stakeholder communication strategy and consultation and participation plan in accordance with ADB's SPS (2009).

10. **Resettlement Specialist** (National, 4 p-m) will review the land acquisition and resettlement needs and corresponding plans to ensure their consistency with ADB's SPS 2009 and Environmental Operational Directions 2013. Where subprojects to be financed by ADB form part of a larger project development, the specialist will confirm that overall project resettlement activities are consistent with ADB requirements. The specialist will also prepare a social

compliance audit of existing project components to identify any pending involuntary resettlement issues associated with them.

11. **Agronomists** (International, 1 p-m; National, 3 p-m) will work with the agronomists of the CRVA team and recommend measures that can be supported by the project to promote on-farm high efficiency irrigation practices, especially taking climate variability into consideration. The specialist will also assess the potential for revenue generating models for O&M of irrigation systems.

12. **Procurement and Start-up Specialists** (International, 2 p-m and national, 3 p-m) will prepare (i) project procurement risk assessment report, including a procurement capacity assessment; (ii) master bidding documents for all contracts; (iii) relevant parts of the project administration manual including procurement plan; and (iv) implementation arrangements including staffing of project management units. They will assist provincial agencies to establish imprest accounts.

13. **Project Economists** (International, 2 p-m; and National, 4 p-m) will work with the economists of the CRVA team to: prepare the economic and financial assessment of subprojects and overall project in accordance with ADB Guidelines on Economic Analysis of Projects including the economic analysis of climate change responsive measures. They will assist with preparing sustainable O&M budgets.

14. **Finance Specialists** (International, 1 p-m; National, 4 p-m) will, in accordance with ADB's Financial Due Diligence - A Methodology Note, review the EA/IAs' financial management and fiduciary capacity and familiarity with ADBs financial management due diligence requirements. They will provide estimate incremental recurrent costs and other inputs to the economic and financial analysis. They will assess public debts status and borrowing capacity of the Ministry of Agriculture and Rural Development (MARD) and five provinces in consultation with ADBs public finance management TA consultants.

15. **Participatory Irrigation Management Specialists – Individual Consultants** (International, 3 p-m; National, 4 p-m) will provide technical, institutional and capacity building recommendations aimed at ensuring strong community engagement and water user participation in scheme design and improvement of O&M. The specialists will develop water productivity monitoring tools and indicators to inform beneficiaries, government and ADB of potential performance improvements and support the development of a benefit monitoring and evaluation framework. The specialists will also recommend ways to transfer ownership of irrigation assets to WUGs.

## E. Implementation Arrangements

16. The EA for the PPTA will be MARD's CPO with the support of provincial people's committees. The PPTA will be implemented during August 2016 – September 2017. Advanced procurement will be used to select consultants. Proceeds of the PPTA will be disbursed in accordance with Technical Assistance Disbursement Handbook (2010, as amended from time to time). Table A3.4 presents the proposed processing and implementation schedule.

**Table A3.4: Proposed PPTA Processing and Implementation Schedule**

Major Milestone	Expected Completion Date
Government approval of project detailed outline	May 2016
Concept clearance / PPTA approval	15 August 2016
Mobilization of PPTA consultants	October 2016
Inception mission	November 2016
Midterm review mission	January 2017
Submission by PPTA of draft RRP and linked documents	April 2017
TA closing date	30 September 2017

Source: Asian Development Bank estimates.