ADB

Technical Assistance Report

Project Number: 41466
Capacity Development Technical Assistance (CDTA)
October 2010

Socialist Republic of Viet Nam: Capacity Building for River Basin Water Resources Planning

Asian Development Bank

CURRENCY EQUIVALENTS
(as of 14 October 2010)

Currency Unit	–	dong (D)
D1.00	=	$0.000051
$1.00	=	D19,475

ABBREVIATIONS

ADB	–	Asian Development Bank
DWRM	–	Department of Water Resources Management
IAR	–	impact assessment report
IWRM	–	integrated water resources management
LWR	–	Law on Water Resources
MONRE	–	Ministry of Natural Resources and Environment
NWRC	–	National Water Resources Council
NTP	–	National Target program
TA	–	technical assistance

TECHNICAL ASSISTANCE CLASSIFICATION

Type	–	Capacity development technical assistance (CDTA)
Targeting classification	–	General intervention
Sector (subsectors)	–	Agriculture and natural resources (water-based natural resources management, public administration)
Themes (subthemes)	–	**Capacity development** (institutional development), governance (law and judiciary), environmental sustainability (natural resources conservation)
Location impact	–	Rural (medium), urban (medium), national (high)

NOTE

In this report, "$" refers to US dollars.

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I. INTRODUCTION

1. The Government of Viet Nam has requested technical assistance (TA) from the Asian Development Bank (ADB) to strengthen the institutions that manage the country's water resources. The TA is included in the country operations business plan, 2009–2011 for Viet Nam and is consistent with Viet Nam's country strategy and program, 2007–2010. The midterm review of the country strategy and program called for an integrated water resources management (IWRM) approach to planning strategies and work practices with a strong focus on institutional development in conjunction with water resources infrastructure development.[1] This follows from the support provided under two earlier TA projects: (i) the Viet Nam Water Sector Review, which identified key water management issues and led to the formulation of the government's National Target Program (NTP) to improve the effectiveness of integrated use, management, and protection of water resources;[2] and (ii) the Second Red River Basin Sector Project, which assisted the government with a review and revision of the Law on Water Resources (LWR).[3]

2. An ADB project review mission for the Second Red River Basin Project, conducted 2–20 August 2010, identified the need for additional TA.[4] This report is based on the understanding reached with the government regarding the impact, outcome, outputs, implementation arrangements, cost, financing arrangements, and outline terms of reference for the TA.[5] The design and monitoring framework is in Appendix 1.

II. ISSUES

3. Viet Nam, a country not rich in water resources, will face numerous challenges in the future. Viet Nam has long dry seasons, and more than 60% of its water comes from other countries. Some major rivers, including the Red–Thai Binh river basin in northern Viet Nam, are stressed with inadequate flows of clean fresh water. Groundwater is contaminated by industrial waste, pesticides and fertilizer used in agriculture, and aquaculture. However, Viet Nam has struggled to implement sustainable resource management approaches, and the government has failed to enforce the regulatory frameworks it has adopted.

4. Legal and institutional arrangements are not clear and water rights are not defined, leading to conflict, inefficient and unsustainable investments, and stress on water resources. The country has struggled to maintain or replace old and dilapidated infrastructure. Climate change and the prospect of rising sea levels are complicating these serious challenges. The 1998 LWR urgently needs updating to address the legal and institutional arrangements that are required.

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[1] ADB. 2009. *Country Strategy and Program Midterm Review: Viet Nam, 2007–2010.* Manila.

[2] ADB. 2006. *Technical Assistance to the Socialist Republic of Viet Nam for the Viet Nam Water Sector Review.* Manila (TA 4903-VIE, for $580,000, approved on 18 December 2006; and supplementary TA for $550,000, approved on 11 December 2008).

[3] ADB. 2002. *Technical Assistance to the Socialist Republic of Viet Nam for Institutional Development (Part A) of the Second Red River Basin Sector Project.* Manila (TA 3892-VIE, for $10.6 million, approved on 8 May 2002; and component 5, Review of the Law on Water Resources, for $681,000, approved on 27 June 2008 with supplementary financing).

[4] The mission also reviewed the complex history of the institutional development component of the project. This and lessons from this experience will be elaborated in the project completion report, which is scheduled for preparation in the first quarter 2011.

[5] The TA first appeared in the business opportunities section of ADB's website on 6 October 2010.

5. IWRM includes the following features: (i) effective management and conservation of water focused on efficient water use in all sectors to ensure a sufficient supply, (ii) a water rights framework, and (iii) river basin plans with water allocation rules. Improving the social environment and living conditions of people requires more and larger investments in water-related projects for pro-poor rural development, irrigation diversification, and stronger rural water supply and sanitation.

6. The government's approval and implementation of the NTP will be essential for the adoption of IWRM principles. The NTP covers the 13 main river basins in Viet Nam, but prioritizes three of them: (i) the Red–Thai Binh river basin in the north, including the capital Hanoi; (ii) the Dong Nai river basin in the south, including Ho Chi Minh City, the largest city and commercial center; and (iii) the Cuu Long (Mekong) river basin in the far south, which encompasses the Mekong Delta. Together these three river basins account for 48% of the country's physical area and almost 70% of its population. They also produce about 70% of the gross domestic product and have more than 80% of the country's water resources.

7. ADB has made considerable investments in water resources development in the Red–Thai Binh River Basin, including four loans with major irrigation and drainage components along with institutional development initiatives.[6] These initiatives have demonstrated the need to (i) strengthen the capacity to develop the water resources sector further and ensure the success of future investments, and (ii) base project planning on a river basin development approach that addresses key constraints in an integrated manner. Successful capacity development projects feature thorough project preparation, close coordination among funding agencies, and administration by the resident mission.

8. The TA is consistent with the draft assessment strategy and road map for the agriculture, natural resources, and environment sector,[7] which includes natural resources and the environment as one of its three major support areas. The TA will also add value to ADB's program for Viet Nam and has the potential to strengthen cooperation with international development partners supporting the development of the country's water resources sector through institutional and operational capacity development.[8]

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

9. The impact will be better management and development of the water resources sector, including the adoption of an effective water resources development strategy and investment

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[6] ADB. 1993. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Socialist Republic of Viet Nam for the Irrigation and Flood Protection Rehabilitation Project.* Manila (Loan 1259-VIE, for $76.5 million, approved on 26 October); ADB. 1994. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Socialist Republic of Viet Nam for the Red River Delta Water Resources Sector Project.* Manila (Loan 1344-VIE, for $60.0 million, approved on 13 December); ADB. 2001. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Socialist Republic of Viet Nam for the Second Red River Basin Sector Project.* Manila (Loan 1855-VIE, for $70.0 million, approved on 13 November); and ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Socialist Republic of Viet Nam for the Strengthening Water Management and Irrigation Systems Rehabilitation Project.* Manila (Loan 2636-VIE, for $100 million, approved on 20 April).

[7] ADB. 2010. Agriculture, Natural Resources, and Environment Sector Assessment, Strategy, and Road Map. Draft summary report. Manila.

[8] The water sector review was financed by ADB and the governments of Australia, Denmark, and the Netherlands. The World Bank contributed the irrigation and drainage subsector review. ADB led the initiative and coordinated participation and responses of a wider group of international development partners involved in the water sector.

program for the Red–Thai Binh river basin by 2015. The outcome will be greater capacity of the Ministry of Natural Resources and Environment (MONRE) to support policy initiatives and implement investment projects, including the government's endorsement and acceptance of a new legal framework for water resources management by November 2011.

B. Methodology and Key Activities

10. The TA will support MONRE's adoption of IWRM principles through (i) continued support for the revision of the LWR, and (ii) the establishment of planning tasks leading to a sector strategy and investment program for the development of the Red–Thai Binh river basin water resources.[9] The main outputs will be the documents needed for the submission of the amended LWR by March 2011,[10] and the planning tasks by June 2012.

1. Support for Preparation of Amended Law on Water Resources

11. Since February 2009, ADB has provided TA to support the review of the LWR (footnote 3). The Government of the Netherlands also provided funding on a grant basis. That support will end at the end of October 2010.

12. MONRE must submit the amended LWR and all supporting documents to the National Assembly by March 2011. This TA will support MONRE over the 5 months between the conclusion of the TA project that initiated the LWR review (footnote 3) and the submission of the amended LWR at the end of March 2011. During that period, MONRE will (i) revise the draft LWR to address stakeholder comments and finalize the LWR, (ii) finalize the impact assessment report, (iii) complete the draft implementation decree, (iv) consult with stakeholders on the draft LWR before finalization, and (v) complete the submission of all documents.

13. A revised draft LWR has been prepared, which includes the following key features: (i) better planning to provide the foundation for good management and protection of the country's water resources; (ii) water source protection and control over activities that degrade water resources; (iii) clearer water use rights and more efficient management of water use; (iv) responses to natural resource threats and damage caused by water; (v) information gathering and sharing; (vi) a wider range of economic instruments, including fees for the efficient delivery of water services, charges for water use and wastewater discharge, and private sector contributions to infrastructure projects; and (vii) clearer organizational and administrative arrangements. Without continued support for the LWR revisions, ADB and MONRE are concerned that many of the innovations and key features proposed in the draft LWR may be lost or watered down as they are exposed to a broader range of stakeholders.

2. Planning Tasks for the Red–Thai Binh River Basin

14. The government's NTP, which is in final stages of formulation and approval, will provide the basis for international development partners working in water sector development, including ADB, to prepare strategies and road maps for investment. The NTP presents the government's broad strategy and a proposed program of investments for water resources development with

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[9] Planning tasks are required by Article 12 of Government Decree 120/2008/NĐ-CP, dated 1 December 2008, on river basin management. They are also proposed in the draft amended LWR.

[10] Including the final draft amended LWR, the final impact assessment report, and the final draft of the government decree on implementation of the LWR.

one of its highest priorities for the Red–Thai Binh river basin.[11] The government strategy and program of investments will need to be refined further before they are included in ADB's lending and nonlending program.

15. The TA will support MONRE in addressing the planning tasks for the development of the water resources of the Red–Thai Binh river basin. The planning tasks will be undertaken before the formulation of a detailed river basin plan as a rapid assessment to identify objectives, priorities, and general solutions for the basin; and to provide a framework and plan of activities for managing water resources. In the Red–Thai Binh river basin, this will involve a sector strategy and investment program for the development of its water resources.

16. The outcomes and targets for the river basin will not be exhaustive. Instead they will focus on the outcomes that reflect the highest priorities and are good indicators of overall improvement. Similarly, targets selected will be those that are most likely to produce the greatest gains towards the outcomes in the short term. Achievement of the targets will allow MONRE to take a significant step in the process of continuous improvement. This will involve consultation with the community concerned and an assessment of social, economic, and environmental impacts over time.

17. The planning tasks for the development of the Red–Thai Binh river basin will provide a framework plan of action and investment for managing water-dependent and water-impacting activities in the river basin. They will be implemented by the provinces, ministries, and state management agencies with interests in this river basin.

C. Cost and Financing

18. The TA will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-IV). The TA is estimated to cost $650,000 equivalent with ADB contributing $580,000 and the government providing $70,000 equivalent. The cost estimates and financing plan are in Appendix 2.

D. Implementation Arrangements

19. The executing agency will be MONRE, which will implement the TA through its Department of Water Resources Management and provide office accommodation, counterpart staff, and logistical support.

20. The TA will require about 54 person-months of consulting services, consisting of 14 person-months international inputs and 40 person-months national inputs. It will be implemented over 20 months with an additional 3 months for TA closing. The consultants currently supporting the LWR revision will be extended through the firm contracted for this purpose by single-source selection as the tasks involved are a natural continuation of their previous work.[12] The firm's main role under the TA is to provide the same six consultants (five nationals and one international) to continue work on the revision of the LWR, which started in early 2009 and has

[11] The Red–Thai Binh river basin is the largest in the country. It is home to one-third of the population, generates more than 25% of gross domestic product, and accounts for about 26% of total irrigation water use in Viet Nam.
[12] The firm currently supporting the revision of the LWR is Kellogg Brown & Root of Australia.

proceeded effectively with their support.[13] The outline terms of reference for consultants is in Appendix 3.

21. The consultants to be employed on the planning tasks will be recruited by individual consultant selection. They will work closely with the Viet Nam Resident Mission's water team[14] and will be able to draw on the expertise and in-house resources already available.

22. ADB will engage the consultants in accordance with its Guidelines on the Use of Consultants (2010, as amended from time to time). Procurement under the TA will be in accordance with ADB's Procurement Guidelines (2010, as amended from time to time). Disbursements under the TA will be in accordance with the ADB's Technical Assistance Disbursement Handbook (2010, as amended from time to time).

23. ADB will manage the TA through its staff posted in the resident mission, which will allow continual communication and on-site monitoring of the TA project and the consultants' progress in carrying out their work. The project officer will meet frequently with MONRE to discuss progress and attempt to ensure effective application of the TA. The government drafting committee will scrutinize the LWR outputs. The outputs related to the planning tasks for the development of the Red–Thai Binh river basin will be widely circulated for comments to government agencies, international development partners, and ADB.

24. TA outputs, policy recommendations, and lessons learned will be disseminated through (i) seminars, workshops, focus groups, and conferences; (ii) consultations with international development partners and civil society; (iii) ADB's water community of practice; and (iv) publication of at least one knowledge product.

IV. THE PRESIDENT'S DECISION

25. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of $580,000 on a grant basis to the Government of Viet Nam for Capacity Building for River Basin Water Resources Planning, and hereby reports this action to the Board.

[13] The vice minister of MONRE has requested that the same consultants be extended for this work as a change in personnel would be disruptive at this late stage in the process. Furthermore, MONRE and ADB have assessed the performance of the firm and its consultants as highly satisfactory.

[14] The Viet Nam Resident Mission established its water team in October 2009 to provide a stronger policy-based approach to the formulation of ADB's program for the sector. The team has two international consultants (one urban water supply and sanitation specialist and one rural water supply and sanitation specialist), one national consultant (regulatory framework specialist), and one national research assistant.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Better management and development of the water resources sector	Central, provincial, and district government cooperating more effectively to manage the water resources sector by 2015 Adoption of improved development strategy for water resources sector investments in the Red–Thai Binh river basin by 2015	National statistics and NWRC reports ADB review missions and evaluations	**Assumptions** The government is fully committed to a stronger legal framework. The government will approve the NTP to improve the effectiveness of integrated use, management, and protection of water resources. **Risk** Lack of cooperation between ministries and consensus on key policy directions
Outcome Greater capacity of MONRE to support policy initiatives and implement investment projects	Government's endorsement and acceptance of new legal framework for water resources management by 2011 Implementation of legal framework started	National statistics and NWRC reports Amended LWR provisions reflected in agency and government investments and project reports National and provincial planning and investment documents ADB review missions and evaluations	**Assumptions** The National Assembly will approve the amended LWR in November 2011. The government will endorse the sector strategy for the development of the Red–Thai Binh river basin. **Risks** The amended LWR will not be comprehensive enough to cover all aspects of the NTP's implementation. Lack of agreement between ministries
Outputs 1. Documents for submission of the amended LWR prepared	Final draft amended LWR, final IAR, and draft government decree on implementation of the amended LWR submitted to the National Assembly by March 2011	National statistics and NWRC reports ADB review missions and evaluation	**Assumptions** Major amendments of the LWR will provide a strong basis for the implementation of IWRM concepts and approaches. The full range of stakeholders, including

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
			sector line agencies, will fully engage in the review of the LWR. **Risks** Insufficient time to complete extensive consultations required for a thorough review of the LWR Inability to significantly amend the LWR in the time allowed
2. The planning tasks for the development of water resources of the Red–Thai Binh river basin formulated	Strategies and methodologies, road map, and investment program by June 2012	National statistics and NWRC reports ADB review missions and evaluation	**Assumption** Active participation by sector stakeholders and key agency representatives of the Red–Thai Binh river basin

Activities with Milestones

1. **Support for the preparation of the amended LWR**

1.1 Assist MONRE with the preparation of the draft amended LWR for formal submission to other ministries by November 2010.

1.2 Assist MONRE with the preparation of the draft implementation decree for negotiation with stakeholders by December 2010.

1.3 Assist MONRE with the preparation of the draft amended LWR for formal submission to the Ministry of Justice by January 2010.

1.4 Assist MONRE with the preparation of the final amended LWR for submission to the National Assembly by March 2011.

1.5 Assist MONRE with the preparation of the final IAR for submission to the National Assembly by March 2011.

1.6 Assist MONRE with the preparation of the final implementation decree for submission to the National Assembly by March 2011.

2. **Planning tasks for the Red–Thai Binh river basin**

2.1 Prepare status report (review of existing policies and data collection) for the Red–Thai Binh river basin by June 2011.

Inputs

ADB: $580,000

Item	Amount ($'000)
Consultants remuneration and support costs	488.0
Training, seminars, and conferences	70.0
Contingencies	22.0

Government of Viet Nam: $70,000

Item	Amount ($'000)
Office accommodation and transport	30.0
Remuneration and per diem of counterpart staff	30.0
Logistical support	10.0

Activities with Milestones	
2.2 Conduct meetings with sector stakeholders of Red–Thai Binh river basin to identify issues, threats, and objectives by June 2011.	
2.3 Formulate recommendations for basin planning activities and appropriate role sharing and responsibilities by January 2012.	
2.4 Develop planning tasks (strategies and methodologies, road map, and investment program) for the Red–Thai Binh river basin by May 2012.	
2.5 Finalize planning tasks (strategies and methodologies, road map, and investment program) for the Red–Thai Binh river basin by June 2012.	

ADB = Asian Development Bank, IAR = impact assessment report, IWRM = integrated water resources management, LWR = Law on Water Resources, NTP = National Target Program, NWRC = National Water Resources Council, MONRE = Ministry of Natural Resources and Environment.
Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN
($'000)

Item	Total Cost
A. Asian Development Bank[a]	
1. Consultants	
a. Remuneration and per diem	330.00
i. International consultants	112.00
ii. National consultants	26.00
b. International and local travel	20.00
c. Reports and communications	
2. Training, seminars, and conferences	60.00
a. Workshops and conferences	10.00
b. Training program	22.00
3. Contingencies	**580.00**
Subtotal (A)	
B. Government of Viet Nam	30.00
1. Office accommodation and transport	30.00
2. Remuneration and per diem of counterpart staff	10.00
3. Others (logistical support)	**70.00**
Subtotal (B)	
Total	**650.00**

[a] Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-IV).
Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. These terms of reference are for the two main outputs to be addressed under the technical assistance (TA) for Capacity Building for River Basin Water Resources Planning: (i) preparation of documents for the submission of the Law on Water Resources (LWR) to the National Assembly, and (ii) formulation of planning tasks leading to a sector strategy and investment program for the development of the water resources of the Red–Thai Binh river basin.

A. Support for Preparation of Amended Law on Water Resources

1. Background

2. The implementation of this TA output will require the services of one international and five national consultants. The consultants currently supporting the LWR revisions will be extended through the firm contracted for this purpose by single-source selection as the tasks involved are a natural continuation of their previous work. The consultants will work closely with their counterpart staff in the Department of Water Resources Management (DWRM), and with the LWR editing team and steering committee set up by the Ministry of Natural Resources and Environment (MONRE). This output will require 1.8 person-months of international consultant inputs and 25 person-months national consultant inputs.

3. The international consultant has expertise in water (surface and groundwater) policy and institutions, understands the international principles and approaches to integrated water resources management (IWRM) and their application, and understands the legal frameworks for water management. The consultant will work mainly from his international home base to ensure quality control of the final outputs produced for the LWR. The national consultants, who will work out of an office established at DWRM, will include a national team leader with extensive expertise in water resources management and an understanding of IWRM and legal frameworks. National expertise in water policy and institutions, existing water management situation and status (surface and groundwater), and water source protection is currently being applied to the review and revision of the LWR. The work is expected to begin from the closing date of the previous TA[1] and continue over 5 months from 1 November 2010 to 31 March 2011.

2. Consultant Activities and Outputs

4. The consultants will support MONRE as it (i) amends the draft LWR in response to comments, and finalizes the LWR; (ii) finalizes the impact assessment report (IAR); (iii) completes the draft implementation decree; (iv) consults widely on the LWR; and (v) completes all submission documents. The consultants will support MONRE in the following areas:

(i) **Finalizing the LWR**
- (a) Continued review and revision of the draft LWR, and production of a final draft.
- (b) Meetings of the steering committee and editing team to consider the draft LWR.
- (c) Public exhibition of the draft LWR.
- (d) Formal referral of the draft LWR to ministries for official comment.

[1] ADB. 2002. *Technical Assistance to the Socialist Republic of Viet Nam for Institutional Development (Part A) of the Second Red River Basin Sector Project.* Manila (TA 3892-VIE, for $10.6 million, approved on 8 May 2002; and component 5, Review of the Law on Water Resources, for $681,000, approved on 27 June 2008 with supplementary financing).

(e) Formal referral of the draft LWR to the Ministry of Justice for official comment.
(f) Hold a special meeting of the National Water Resources Council to discuss the amended LWR and its implementation.

(ii) **Producing the final IAR**
(a) Continued revision of the IAR to meet the requirements of the Law on the Promulgation of Legal Documents, and to reflect the final LWR.
(b) Meetings of steering committee and editing team to consider the draft IAR.
(c) Public exhibition of the draft IAR.
(d) Formal referral of the draft IAR to ministries for official comment.
(e) Formal referral of the draft IAR to the Ministry of Justice for official comment.

(iii) **Producing the implementation decree for the LWR**[2]
(a) Preparation of a draft implementation decree and discussions with stakeholders.
(b) Continued review and revision of the draft, and production of a final implementation decree.

(iv) **Producing documents required for submission to the National Assembly, as required by the Law on the Promulgation of Legal Documents**

B. Planning Tasks for the Red–Thai Binh River Basin

1. Background

5. The output will be the production of planning tasks for the Red–Thai Binh river basin, setting out a strategy and investment plan for the basin. Planning tasks are based on existing knowledge and understanding (no additional research or major data collection will be undertaken). They will concentrate on high-level issues, outcomes, and solutions. The planning tasks will:

(i) Identify agreed objectives—what are the broad outcomes that river basin planning should achieve?
(ii) Identify priorities for activities—what are the key areas in which management activities are required? This may be in water allocation, pollution treatment, flood mitigation, protection of the stability of the river channel structure, or groundwater management for a specified area.
(iii) Propose general solutions—what needs to be done to achieve the objectives? In some cases, these may require the development of a component plan for a river or a groundwater area. In others, the solutions may be more general, such as the need for a community awareness campaign or for capacity building.

6. The planning tasks will provide clear directions for all water management in the river basin, including the need to create component plans addressing

(i) water allocation,
(ii) water source protection, and
(iii) management of natural hazards (including flooding).

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[2] A draft of the implementation decree must be submitted to the National Assembly at the same time as the LWR. This will detail how the provisions of the LWR will be implemented. As such, it is an important document that will help the National Assembly understand the provisions.

7. The implementation of this TA output will require the services of one international consultant and one national consultant. Individual consultants will be engaged through ADB's individual consultant selection to provide these services and work closely with counterpart staff of DWRM and MONRE. This output will require 12.2 person-months of services of international consultant inputs and 15 person-months national consultant inputs. The international consultant will be the team leader. The consultant will have expertise in surface water and groundwater policy and institutions, and will understand international principles and approaches to IWRM and their application. The national consultant will have expertise in water resources management and will understand IWRM, water policy and institutions, and water source protection. The work is expected to take place intermittently over 18 months between 1 January 2011 and 30 June 2012.

2. Consultant Activities and Outputs

8. The consultants will support MONRE as it (i) prepares status report, including a review of existing policies and data collection, for the Red–Thai Binh river basin; (ii) conduct meetings with sector stakeholders of Red–Thai Binh river basin to identify issues, threats, and objectives; (iii) formulate recommendations for basin planning activities and appropriate role sharing and responsibilities of central, provincial, and district water agencies and other stakeholders; (iv) develop planning tasks—strategies and methodologies, road map, and investment program—for the development of the river basin; and (v) finalize the sector strategy and investment program for development of the river basin. The details of the consultants' activities are as follows:

(i) **Prepare status report for the Red–Thai Binh river basin**
- (a) Prepare a stakeholder participation plan.
- (b) Identify the status and trends of the water sources of the basin (hydromorphology, water quality and environmental health, water extraction and use, damage caused by the harmful effects of the water, economic profile, social profile, and community values).
- (c) Identify management arrangements, including legal and institutional aspects, international agreements, current monitoring programs, licensing status, capacity to manage inspection and compliance, and community participation mechanisms.
- (d) Review and update terms of reference and TA scope.

(ii) **Establish river basin issues, threats, and objectives**
- (a) Establish a water vision for the basin and water management principles.
- (b) Identify the processes and activities that present the greatest risk to the community values and assets of the basin.
- (c) Establish resource objectives, social and economic objectives, and management objectives.

(iii) **Formulate recommendations for basin planning activities and appropriate roles of stakeholders**
- (a) Establish which of the component planning activities are to be developed—water source protection, allocation, and/or natural hazards—to achieve the objectives and resolve the issues identified.
- (b) Recommend appropriate role sharing and responsibilities of central, provincial, and district water agencies.
- (c) Promote the participation of government officials in relevant conferences and training.

(iv) **Develop actions, strategies, and road map for the river basin**

(a) Develop and appraise a range of management options for water sources considered at risk, and make decision about the measures and specific provisions that will be included in the planning tasks and road map.
(b) Draft a final document of planning tasks (strategies and methodologies) for river basin management and development.
(c) Prepare workshops to vet and review the Red–Thai Binh river basin development plan.
(d) Define and draft knowledge products.
(e) Develop an action plan for the adoption of policy recommendations.
(f) Prepare draft final report and recommendations.

(v) **Finalize river basin sector strategy and investment program**

(a) Solicit comments on the final draft strategy and road map for the river basin, and finalize reports and strategies.
(b) Define next steps and follow-up actions.
(c) Finalize at least one knowledge product and identify appropriate dissemination channel.
(d) Make a presentation to ADB's water community of practice on the Red–Thai Binh river basin sector strategy and investment program.