Environmental Assessment and Review Framework

January 2013

Viet Nam: Central Region Rural Water Supply and Sanitation Sector Project

CURRENCY EQUIVALENTS
(as of 13 March 2018)

Currency unit – dong (VND)
VND1.00 = $0.000048
$1.00 = VND20850

ABBREVIATIONS
ADB – Asian Development Bank
CBA – community-based approach
CPMU – central project management unit
DARD – Department of Agriculture and Rural Development
EARF – environmental assessment and review framework
EMDP – ethnic minority development plan
FGIA – first-generation imprest account
HSP – health and sanitation promoter
ICB – international competitive bidding
IEC – information, education, and communication
IEE – initial environmental examination
KAP – knowledge, attitude, and practices
M&E – monitoring and evaluation
MARD – Ministry of Agriculture and Rural Development
MOET – Ministry of Education and Training
MOH – Ministry of Health
NCB – national competitive bidding
NCERWA SS – National Center for Rural and Clean Water and Environmental Sanitation
NTP – National Target Program
O&M – operation and maintenance
PCERWAS S – Provincial Center for Rural and Clean Water and Environmental Sanitation
PPC – provincial people’s committee
PPMU – provincial project management unit
PVWU – provincial Viet Nam women’s union
RWSS – rural water supply and sanitation
SEDP – Socioeconomic Development Plan
SGIA – second-generation imprest account
VWU – Viet Nam women’s union
WSCC – water and sanitation commune committee

NOTE

In this report, "$" refers to US dollars unless otherwise stated.

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ENVIRONMENTAL ASSESSMENT AND REVIEW FRAMEWORK

Consulting Services for Project Implementation Assistance

The Joint Venture of CDM International Inc., Nippon Koei Co. Ltd. and Vinaconsult JSC

Revision 01
January 2013
Figure 1: Location map of six Project Provinces of the central coastal region of Vietnam
List of Abbreviations

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<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<tr>
<td>CFFC</td>
<td>Communal Fatherland Front Committee</td>
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<tr>
<td>CFU</td>
<td>Communal Farmer's Union</td>
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<tr>
<td>CPC</td>
<td>Commune People's Committee</td>
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<tr>
<td>CPMU</td>
<td>Central Project Management Unit</td>
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<tr>
<td>CRRWSSSP</td>
<td>Central Regions Rural Water Supply and Sanitation Sector Project</td>
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<tr>
<td>CSC</td>
<td>Design-Build Supervision Consultant</td>
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<tr>
<td>CVWU</td>
<td>Communal Vietnam Women's Union</td>
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<td>DARD</td>
<td>Department of Agriculture and Rural Development, Provincial</td>
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<td>DFU</td>
<td>District Farmer's Union</td>
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<td>DoNRE</td>
<td>Department of Natural Resources and Environment, Provincial</td>
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<td>DPC</td>
<td>District People's Committee</td>
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<tr>
<td>DVWU</td>
<td>District Vietnam Women's Union</td>
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<td>EARF</td>
<td>Environmental Assessment Review Framework</td>
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<tr>
<td>EC</td>
<td>Environmental Protection Commitment</td>
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<td>EMP</td>
<td>Environmental Management Plan</td>
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<td>EMoP</td>
<td>Environmental Monitoring Plan</td>
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<td>EO</td>
<td>Environmental Officer</td>
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<td>FS</td>
<td>Feasibility Study</td>
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<td>GoV</td>
<td>Government of Vietnam</td>
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<td>HHs</td>
<td>Households</td>
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<td>IEE</td>
<td>Initial Environmental Examination</td>
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<tr>
<td>lpcd</td>
<td>liters per capita per day</td>
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<td>MARD</td>
<td>Ministry of Agriculture and Rural Development</td>
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<td>MoH</td>
<td>Ministry of Health (BYT)</td>
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<td>MoNRE</td>
<td>Ministry of Natural Resources and Environment (BTNMT)</td>
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<td>NCERWASS</td>
<td>National Centre for Rural Water Supply and Environmental Sanitation</td>
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<td>NGO</td>
<td>Non-governmental Organization</td>
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<tr>
<td>O&amp;M</td>
<td>Operation and Maintenance</td>
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<td>ODA</td>
<td>Official Development Assistance</td>
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<td>OU</td>
<td>Operation Unit</td>
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<td>PAM</td>
<td>Project Administration Memorandum</td>
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<td>PCERWASS</td>
<td>Provincial Centre for Rural Water Supply and Environmental Sanitation</td>
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<td>PIA</td>
<td>Project Implementation Assistance</td>
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<td>PIM</td>
<td>Project Implementation Manual</td>
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<td>POW</td>
<td>Project Orientation Workshop</td>
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<td>PPC</td>
<td>Provincial People's Committee</td>
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<td>PPMU</td>
<td>Provincial Project Management Unit</td>
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<td>PPTA</td>
<td>Project Preparatory Technical Assistance</td>
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I. INTRODUCTION

1. The Environmental Assessment and Review Framework (EARF) has been prepared to ensure that the six Pilot Subprojects and the future Subprojects of the Central Region Rural Water Supply and Sanitation Sector Project (CRRWSSSP) follow the same and adequate environmental assessment processes. The future Subprojects will be evaluated in a manner consistent with the requirements of the GoV and the ADB. The EARF will guide the Central Project Management Unit (CPMU) and the PPMUs in carrying out the environmental assessment of the subprojects to be financed by the ADB loan.

2. The CRRWSSSP is designed as a sector investment Project. Based on the results of the Project Preparatory Technical Assistance (Project No. 40364-013, TA No. 7126-VIE) the environmental classification of the Project is Category B. The Initial Environmental Examinations (IEE) of the 6 Subprojects indicated not to generate significant adverse environmental impacts. They are intended to improve the quality of the environment and the living standards of rural communities. The benefits of the Subprojects include an increase in the number of houses connected to clean and reliable water for drinking and sanitation, a reduction in or elimination of flooding and stagnation of wastewater, and better personal sanitation.

3. The CRRWSSSP will increase access to water supply and sanitation, improving the health and quality of life of the rural population in six selected provinces in the central region of Viet Nam. The Project supports the Government of Vietnam in implementing its Socioeconomic Development Plan and helps to achieve the Vietnamese Millennium Development Goals.

4. The Project has a strong poverty focus and its design is based on lessons from previous interventions in the sector. The Project will provide piped water and hygienic sanitation to about 350,000 people living in approximately 30 communes in the six project provinces in the central region of Viet Nam. The 6 project provinces are: Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Nam, and Binh Dinh. The Project will contribute to the Vietnam Rural Water Supply and Sanitation (RWSS) strategy, which states that by 2020, 100 percent of the rural population will (i) have access to clean water with a minimum volume of 60 liters per capita per day; (ii) use hygienic latrines; and (iii) practice proper personal hygiene.

5. The Subprojects will follow an integrated approach to the improvement of water supply and sanitation, including minor drainage improvement. The Project will support a community based approach (CBA) ensuring the active involvement of the communities in the preparation, planning, design, construction and operation of the water supply and sanitation facilities.

6. It is anticipated that 6 to 9 Subprojects will be selected and approved every year, over a period of three years depending on budget availability. Approval of the Subprojects will be based on a Subproject Appraisal Report (SAR) including the required environmental safeguard documents. This Environmental Assessment Review Framework set the basis for conducting the environmental assessment and the preparation of the report following the environmental requirements of the Government of Vietnam and the applicable policies of ADB on environmental assessment.
II. ADB’S POLICIES AND GOV’S LEGAL FRAMEWORK

7. There are two principal laws governing the environmental assessment of the CRRWSSSP and protection of the environment, including the management of Project, is the Law on Environmental Protection No. 52/2005/QH11 dated 29th November, 2005 and the Law on Water Resources Management dated 20th May, 1998. The associated decrees and circulars for its implementation include the following:

- Decree No. 29/2011/ND-CP dated 18th April, 2011 by Government on provisions on Strategic environmental assessment (SEA), Environmental impact assessment (EIA) and Environmental protection commitment (EC);
- Circular No. 02/2005/TT-TNMT dated 24th June, 2005 of the Ministry of Natural Resources and Environment guiding the implementation of Decree No. 149/2004/ND-CP of the Government on the level of exploration, exploitation and use of water resources, discharge of wastewater into water sources;
- Decree No. 117/2009/ND-CP dated 31st December, 2009, Handling of law violations on Environmental field;
- Decree No. 59/2007/ND-CP dated 09th April, 2007 by Government on Solid waste management;
- Decree No. 21/2008/ND-CP dated 28th February, 2008 of the Government, amending and supplementing a number of articles of the Decree No. 80/2006/ND-CP;

ADB Policy and Environmental Assessment Guidelines

8. ADB’s Environment Policy 2002 mandates the consideration of environment in all aspects of ADB’s operations. The policy requires environment assessment of all project loans, program loans, sector loans, sector development program loans, financial intermediation loans, and private sector investment operations.

9. Under the ADB’s Environmental Assessment Guidelines 2003, the CRRWSSSP environment category has been classified as Category B. Category B Projects could have some adverse environmental impacts but of lesser degree or significance compared to Category A. For Category B projects, an Initial Environmental Examination (IEE) report will be prepared to determine significant environmental impacts that may require an Environmental Impact Assessment (EIA). If an EIA is not needed, the IEE is regarded as the final environmental assessment report.

GovV Environmental Law
10. The Decree No. 29/2011/ND-CP dated 18th April, 2011 by the state on Strategic Environmental Assessment (SEA), Environmental Impact Assessment (EIA) and Environmental Protection Commitment (EC) classified projects into several “Categories”: (i) category 1 are projects listed in Appendix 1 of the Decree that are subjected to an SEA; (ii) category 2 are projects listed in Appendix 2 of the Decree required to submit an EIA report; and (iii) category 3 (to be included in Category 2) are projects listed in Appendix 3 that will be required an EIA report and have to be appraised and approved by the MoNRE. Where a project is a type that is not listed in Appendix 1 and Appendix 2 and 3 of the Decree, having a classification of Category B, an Environmental Protection Commitment shall be submitted and registered for approval of the District People Committee.

11. For projects to exploit water for supply to production, business, service and daily-life activities, projects that warrant preparation of an EIA are classified based on their capacity excluding those that may potentially encroach sites of natural/ cultural heritage, natural reserve, or a substantial area of agricultural/ forest land:

(i) Projects with capacity of 5000 m³ or more of ground water
(ii) Projects with capacity of 50 000 m³ or more of surface water

For projects with capacity of less than those categories, an Environmental Protection Commitment is needed.

12. The Decree No. 29/2011/ND-CP sets out the procedures, rights and responsibilities for the preparation, review and approval of proposed projects, and the implementation and verification of environmental management and monitoring plans. The responsibilities relate to the process of preparation and approval of the project. The roles include review, investigations, field inspections, information dissemination, public consultation, response to comments and the issuance of certificates of compliance.

13. The environmental standards applicable to the CRRWSSSP Subproject to comply with are the following:

*Standard for the raw water quality*
- QCVN 08:2008/BTNMT - National technical regulation on quality of surface water;
- QCVN 09:2008/BTNMT - National technical regulation on quality of ground water;

*Standard for the treated water quality*

*Standard for the sanitation*
- QCVN 01:2011/BYT - National technical regulation on Hygienic conditions for Latrines;
- QCVN 14:2008/BTNMT - National technical regulation on domestic wastewater;
- QCVN 40:2011/BTNMT - National technical regulation on industrial wastewater;
- QCVN 15:2008/BTNMT - National technical regulation on plant protection chemical residues in soil;
- QCVN 07: 2009/BTNMT - National technical regulation on threshold for hazardous waste;
III. ANTICIPATED ENVIRONMENTAL IMPACTS

14. The potential adverse environmental impacts associated with design, construction, and operation of the Subprojects will mostly be small and localized and can be readily mitigated through proper engineering design and implementation of the recommended mitigation measures and monitoring provided in the Environmental Management Plan (EMP) and Environmental Monitoring Plan.

15. The anticipated environmental impacts associated with the CRRWSSSP objectives to: (i) provide access to clean water with a minimum volume of 80 liters per capita per day; (ii) use hygienic latrines; and to (iii) practice proper personal hygiene in the targeted communes of the 6 project provinces include the following:

(i) unnecessary cutting and removal of trees and protective vegetation cover;
(ii) generation of dust, noise and vibration during the construction period;
(iii) increased in waste water from households and increased pollution of receiving water bodies if not mitigated;
(iv) possible lowering and drying of ground water levels from water abstraction; and
(v) unsanitary disposal of sludge from WTP and septic tanks among others.

16. Given the pre-screening of candidate subprojects by PPTA consultants during CRRWSSSP preparation and the criteria used in the identification and selection of Subprojects, the eligible Subprojects are Category B under the ADB’s environmental classification. Category B projects may result in some adverse environmental impacts which can be largely mitigated. For projects in this Category an Initial Environmental Examination (IEE) is required to determine the need for an Environmental Impact Assessment (EIA).

17. Considering the potential environmental impacts of the future Subprojects and the relevant environmental requirements of ADB and the Government of Vietnam, the selection of the future Subprojects to be included in the CRRWSSSP shall consider the following points to mitigate negative environmental impacts:

(i) The Subprojects shall only involve activities that follow all the applicable Government regulations and ADB’s environmental policy requirements;
(ii) The Subprojects should not pass through any wildlife sanctuaries, national parks, nature reserves, and protected areas designated by national and international regulations;
(iii) The Subprojects should not pass through any ecologically/religious sensitive and significant as recognized by the Government or any area that is locally or internationally significant protected areas; and
(iv) The Subproject should as much as possible avoid any cultural heritage and archaeological sites designated by the Ministry responsible for culture.
CRRWSSSP Subproject Selection Criteria

18. Each candidate Subproject must meet the following selection criteria and ensure the avoidance of potentially negative impacts that cannot be mitigated.

(i) Communes have relatively high population densities. Human and animal waste disposal are likely to contaminate shallow ground water layer.

(ii) Shallow groundwater layers are polluted, making the water unfit for consumption or requiring extensive treatment. Pollutants include salinity, fluoride, arsenic, and iron.

(iii) Suitable readily accessible drinking water sources are scarce. The shallow groundwater or nearby surface water sources have too little yield in the dry season to sustain the requirements of the population, leading to a drying up of shallow groundwater wells, surface streams, and springs.

19. In general the candidate Subprojects may have the following components/infrastructure:

(i) raw water source: either a deep well or a surface water intake;

(ii) transmission mains;

(iii) treatment plant;

(iv) pumping station if required;

(v) central elevated reservoir;

(vi) distribution system;

(vii) house connections or communal taps, with water meters.

(viii) provision of in-kind grants to poor households through construction of household latrines sub-structure, to be procured by the PPMUs through a single works contract for each Subproject;

(ix) provision of credit to non-poor households up to a maximum of the estimated full costs of a latrine, for use in procurement of materials and works for the latrine;

(x) establishment of a revolving fund to provide credit to Subproject households for latrine construction;

(xi) provision of support to construct and rehabilitate small drainage works at households and public areas, and latrines in schools, health centers and public areas; and

(xii) establishment and training of sludge removal units in areas where flood-proof latrines will be constructed.

20. Associated activities to enhance the impact from infrastructure investments include:

(i) Promotion of community participation in Subproject implementation and IEC activities through development of a CBA-IEC action plan specific for each community involved in each Subproject;
(ii) Formation and training of WSCCs to be directly involved in Subproject implementation, including endorsing and monitoring the CBA-IEC action plan, facilitating IEC activities, supporting HSPs, and monitoring contractors;

(iii) Recruitment and training of HSPs to mobilize the community for social preparation and to implement IEC activities;

(iv) Provision of funds from a community fund for small-scale sanitation Works to be managed by communities and facilitated by HSPs;

(v) Capacity development of provincial government agencies, PPMUs, communes and villages to implement CBA and IEC activities.

21. These will involve facilitation and training work aimed at enhancing the ability of the commune to sustainably maintain their water supply and improved sanitation.

The Implementation Arrangements

22. The Central Region Rural Water Supply and Sanitation Sector Project (CRRWSSSP) is a sector project, including about 24 Subprojects located in six provinces in the central coastal region of Vietnam: Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Nam, Binh Dinh. It is expected that six to nine Subprojects will be selected and approved annually, over a period of three years.

23. The Ministry of Agriculture and Rural Development (MARD) is the Executing Agency (EA) of the CRRWSSSP. The National Center for Rural Water Supply and Environmental Sanitation (NCERWASS) is the Project Owner. A Central Project Management Unit (CPMU) has been established within NCERWASS to be Representative of the Project Owner.

24. CPMU has the overall responsibility for coordination and Project implementation.

25. The PPCs shall be responsible for carrying out the project at the provincial level.

26. DARDs are responsible for implementing the Subprojects and shall set up a PPMU within the PCERWASS of the project provinces. PPMUs will be responsible for the implementation of the Subprojects located in the province. Each PPMU shall consist of experienced professional staff from at least the relevant units within PCERWASS and a representative of the subproject Commune People’s Committee (CPC).

27. The Water and Sanitation Commune Committee (WSCC) will be formed in each Subproject commune. The WSCC including community leaders, representatives from the commune VWU and other mass organizations, commune health officials, village leaders, men and women representatives from water users, and school teachers together with HSPs will be responsible for Subproject implementation supervision at the commune level.

28. PPMUs will consolidate the data and will provide the CPMU with quarterly reports on their (i) activities, (ii) compliance with safeguard requirements, and (iii) progress toward output targets.

29. The CPMU with the support from PIA Consultant will consolidate reports that will be finalized and circulated to ADB, MARD, and MOH, by the 20th of the first month of the following quarter. Annual Project performance management system
reports will be prepared by each PPMU, and then consolidated by the CPMU to be submitted to ADB.

IV. PROCEDURE OF SUBPROJECTS’ ENVIRONMENTAL ASSESSMENT

A. Screening and Environmental Classification

30. All future Subprojects to be included in the CRRWSSSP will be screened to determine its environmental category. The environmental categorization for each Subproject will be determined based on the Rapid Environmental Assessment (REA) Checklist. A template of the REA is attached as Annex 1. The classification is to be based on the most environmentally sensitive component of the Subproject, which means that if one part of a Subproject has the potential for significant adverse environmental impacts, then the Subproject is to be classified as Category A regardless of the potential environmental impacts of other aspects of the Subproject. Under the Environmental Assessment Guidelines 2003 of ADB, Category B projects are required to prepare the IEE and Summary IEE reports.

31. The screening process of proposed Subprojects aims to ensure that Subprojects being considered for financing will not have significant negative environmental impacts and that minor impacts can be mitigated through the implementation of Subproject environmental management plan formulated within each IEE. This ensures that each Subproject would be within Category B of the ADB system and none will be Category A.

32. The GoV Decree No. 29/2011/ND-CP (referred here as the Decree), generally classify projects in Appendix 1 of the Decree as Strategic projects and master plans subject to Strategic Environmental Assessment (SEA) and projects listed in Appendix 2 of the Decree will be subject to an Environmental Impact Assessment (EIA) reporting. Appendix 3 of the Decree refers to projects subject to Environmental Impact Assessment (EIA) to be appraised and approved by the Ministry of Natural Resources and Environment (MoNRE). Those projects not listed in Appendices of the Decree having environmental classification of Category B will be required to prepare and register an Environmental Protection Commitment (EC) to be approved by the District People Committee.

33. The CRRWSSSP Subprojects include: sourcing of ground water supply that require less than 5,000 m$^3$ per day and raw surface water of less than 50,000 m$^3$ per day. All subprojects eligible under subproject selection criteria, are therefore likely to be not listed in Appendix 1, 2 or 3 of the Decree for the purpose of environmental assessment, and the Subprojects will require an Environmental Protection Commitment (EC) approval from the District People’s Committee.

34. The ADB’s environmental classification of projects is determined based on the REA. In general, a subproject is suggested to be classified as ‘Category A’ under the following instances:

(i) a new road alignment;
(ii) in or near any ecologically sensitive areas (hilly or mountainous, forest land or other area with important ecological function), particularly if the subproject is located less than 500 meters from a designated national/natural park, wildlife or other sanctuary, a botanical garden, an area of international significance (e.g., IUCN or RAMSAR site) or from cultural heritage and archaeological sites designated by the government and UNESCO;

(iii) densely populated areas where resettlement may be required or pollution impacts and other disturbances may be significant;

(iv) regions subject to heavy development activities or where there are conflicts in natural resource allocation;

(v) watercourses, aquifer recharge areas, or reservoir catchments used for potable water supply;

(vi) lands or waters containing valuable resources (e.g. fisheries, minerals, medicinal plants, prime agricultural soils); and

(vii) requiring a complex mitigation measure to be prepared through an in-depth assessment of the impacts and detailed study for preparing mitigation measures.

35. Subprojects that do not fall into the above category can be classified as Category B.

36. Subprojects judged to have some adverse impacts, but of lesser degree and/or significance than Category A is Category B, for which an IEE report is required to determine whether or not significant environmental impacts warranting an EIA is likely. If an EIA is not needed, the IEE is regarded as the final environmental assessment report.

37. All CRRWSSSP Subprojects must comply with the policies and environmental assessment guidelines of ADB and the environmental laws and decrees stipulated above. Should there be inconsistency in project implementation the policy of the ADB shall prevail.

B. IEE and EIA Preparation

38. The preparation of an IEE report for new Subproject will be carried out by the PIA consultant. Following the Environmental Assessment Guidelines, 2003 of ADB, Subprojects with potential for significant adverse environmental impacts are Category A, for which an EIA report is required to address significant impacts. For a category B Subproject an initial environmental examination report (IEE) and a summary initial environmental examination (SIEE) report are required.

Flowchart 1: Illustration of the procedural steps of the Environmental Assessment of the CRRWSSSP Subprojects following the ADB and GoV requirements.
THE PROCEDURAL STEPS OF THE ENVIRONMENTAL ASSESSMENT

**SUBPROJECT PRE-DESIGN**
- REA Checklist / Field investigation
- REA Report
- Environmental Report

**SUBPROJECT DESIGN**
- EA of FS Report
  1. Env. ADB Policy and GoV Legislation, Standards;
  2. Environment Description;
  3. Environment Impact and Mitigation Measure;
  4. EMP. Environ Monitoring Plan, Institutional. Cost estimates;
  5. Public consultation and Information disclosure;
  6. Commitment.
  (PMU/Local consultant)
- EC Report
  1. General Information (GoV Legislation, Standards, Subproject description);
  2. Environment description;
  3. Mitigation measure;
  4. Mitigation works, Environ Monitoring Plan, Cost estimates;
  5. Commitment.
  (PMU/Local consultant)
- IEE & SIEE Reports
  1. Env. ADB Policy, GoV Legislation, Standards;
  2. Subproject description;
  3. Environment description;
  4. Potential Impact and Mitigation measure, EMP;
  5. Institutional and Environ Monitoring Plan;
  6. Public consultation and Information disclosure;

**SUBPROJECT REVIEW**
- Revised EA of FS Report
  (Especially EMP, Environ Monitoring Plan, Cost estimates)
- Revised EC Report
  (Especially EMP, Environ Monitoring Plan, Cost estimates)
- Revised IEE & SIEE Reports
  (Especially EMP, Environ Monitoring Plan, Cost estimates)

**SUBPROJECT APPRAISAL AND APPROVAL**
- Revised EA of FS Report
  Approval by DPC
  - IEE and SIEE reports on ADB website;
  - SIEE report at commune level. (CPC)
- Revised EC Report
  Approval by DPC
  - EMP, Environ Monitoring Plan, Cost estimates
- Revised IEE & SIEE Reports
  Approval by DPC
  - EMP, Environ Monitoring Plan, Cost estimates
  - Approval by PPC
  Subproject Appraisal Report
  ADB ISSUES NO OBJECTION LETTER
  Disclosure:
  - IEE and SIEE reports on ADB website;
  - SIEE report at commune level. (CPC)
- Public Consultation
  (disclosing information and collecting feedback)

**CONSTRUCTION PHASE**
- Implement of EMP
  1. Environmental and Health Safety;
  (OU, Supervision: WSCC)
  2. Construction camps and workers’ activities;
  3. Cultural historical site.
  (Contractor, Supervision: CSC)
- Implement of Env’ Monitoring Plan
  1. Raw water quality analyses;
  2. Land clearing, earthworks; Industrial and domestic solid waste, waste water.
  (Contractor, Supervision: CSC)
- Reporting
  → Subproject Quarterly report to CPMU/PIA Consultant. (CSC & WSCC)
  → Project Quarterly Progress Report to ADB, MARD and MoH.

**O & M PHASE**
- Implement of EMP
  1. Environmental and Health Safety;
  (OU, Supervision: WSCC)
- Implement of Env’ Monitoring Plan
  1. Raw water quality analyses;
  2. Treated water quality;
  3. Waste water quality;
  4. Sludge from WTP.
  (OU, Supervision: WSCC)
- Reporting
  → Subproject Quarterly report to CPMU/PIA Consultant. (PPMU/EO)
  → Project Quarterly Progress Report to ADB, MARD and MoH.

**OVERALL PROJECT COMPLETION REPORT**
(31 December, 2016)

**ANNOTATE**
- PIA Activities for Preparation
- PIA Activities for Assistance
- Implementing Responsibility

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The Joint Venture of CDM International Inc., Nippon Koei Co. Ltd. and Vinaconsult JSC.
39. Before conducting any environmental studies, the scope of the environmental surveys, method of data collection and outputs anticipated from the study need to be prepared. The scoping procedure should at least produce the following outputs:

(i) identify the likely environmental impacts or other environmental concerns and consideration that need to be further investigated in IEE study;

(ii) identify environmental component which need detailed or further study;

(iii) determine the general approach and methodology required to carry out the IEE study;

(iv) identify in general all affected interest to be consulted in carrying out IEE study; and

(v) identify the need to fit the outputs of IEE into the Project context especially on environmental management and monitoring plans.

C. Identifying Baseline Conditions and Impacts

40. The environmental surveys should identify the components of the environment that are likely to be significantly affected by the Subproject based on Subproject location, engineering design, past documented experience, the geographic and time-related extent of the effects, and the measurements to be used to assess significance of impacts. A topographic map showing the Subproject location and include if any road(s), water courses, settlement areas, and preferably land use of the Subproject area.

41. With the screening results, establish the baseline conditions against which any change is measured for the components of the environment likely affected by the Subproject. This will usually be carried out through site visits and review of spatial databases for all available environmental parameters such as terrain, soils, rivers, forest, protected areas, and land-use. This will also include collection and analysis of water quality. These data must be collected in such a manner that their source can be traced by anyone who picks up the document.

D. Assessing Potential Impacts

42. The next step is to predict the likely changes as a result of construction activities and operation of the Subproject, by relating cause and effect such as soil erosion, to air quality and noise levels and changes in water quality. The locations where data were collected and where monitoring should take place should be well documented to facilitate analysis and provide credibility.

E. Formulation of Mitigation Measures

43. Once the impacts have been analyzed, their significance will be determined, i.e., whether they are acceptable, require mitigation, or are unacceptable. Subsequently, measures will be devised to mitigate anticipated environmental changes and consequential impacts during subproject implementation and operation, or further reduce the residual environmental changes inherent in the selected Subproject design.
They normally include technical, social, and institutional measures to be implemented as integral elements of the Subproject.

44. Present the findings on impacts and benefits during the public consultation and information session to inform key stakeholders and affected communes of the issues identified and to invite comments from the public as described in Chapter 6 below.

45. To ensure that the ADB environmental requirements and all applicable GoV environmental laws, regulations, and standards, are met prior to the start of construction and during construction and operation of the Subproject, an updated Environmental Management Plan (EMP) should be prepared by the Contractor prior to start of construction activities based on the final Detailed Design or any changes in the detailed design to be approved by the PPMU. The updated and approved EMP by the PPMU shall then be presented for public disclosure.

F. Preparing the Environmental Management and Monitoring Plans

46. The Environmental Management Plan (EMP) describes how the mitigation and other measures to enhance the benefits of environmental protection will be implemented. The Subproject life cycle should be taken into account in setting the timing of implementation (i.e., preconstruction, construction, operation and maintenance). The location for monitoring should be selected based on where the impacts would occur and the areas to be affected. It explains how the measures will be managed, who will implement them, and when and where they will be implemented. The following elements should be described in the EMP:

(i) implementation of mitigation measures during Subproject design;
(ii) implementation of mitigation measures by contractors, and how impacts prevention will be incorporated in the materials procurement;
(iii) social development program (e.g., resettlement plan, community training);
(iv) contingency response plan for natural or other disasters, and Subproject contingencies; and
(v) environmental management and monitoring costs including mitigation costs.

47. Environmental monitoring is carried out before and during construction to establish baseline data needed for evaluating environmental impacts during Subproject implementation. It continues through Subproject operation to detect changes in the key environmental quality parameters, which can be attributed to the Subproject.

48. The environmental monitoring plan (EMoP) describes the monitoring activities to ensure that adverse environmental impacts are detected and will be minimized accordingly, and the EMP implemented. The environmental monitoring plan will cover selected parameters to indicate the level of environmental impacts. It also describes how, when and where the monitoring activities will be undertaken; who will carry them out; and who should receive the monitoring report. More importantly, it includes a proposal to carry out environmental compliance monitoring activities and the implementation costs are identified.

49. The nature of each subproject implies different EMP and EMoP need to be prepared for the Subproject. For the water supply Subprojects belonging to the CRRWSSSP, the EMP and EMoP should be constructed to ensure at least the impacts
to be managed, monitored and mitigated and the minimum control/ mitigation measures as specified in the templates of EMP and EMoP in Appendix.

G. Institutional Arrangements and Responsibilities for Environmental Management

50. The CPMU will (i) provide technical support for project implementation, supervision to the project provinces; (ii) coordinate all reporting activities, consolidate reports and ensure timely submission of semi-annual reports to MARD and ADB; (iii) monitor and coordinate environmental aspects of the Subprojects to ensure compliance with the requirements of the ADB and the GoV.

51. Provincial People's Committee (PPCs) shall be responsible for carrying out the Subprojects at the provincial level for the review and approval of feasibility study (FS) reports prepared by national consultants; and to ensure that the construction and operation of each Subproject:

(i) Are in accordance with the EC, EMP and Environmental monitoring plan;
(ii) Comply with the government's environmental laws and regulations; and

52. The PPMU, shall be responsible for: (i) liaising with the CPMU, other PPMUs and CPCs; (ii) selecting and proposing subprojects; (iii) carrying out subproject feasibilities studies and preparing subproject feasibility reports that will include technical design, appraisal, bidding documents for civil works and safeguards reports; (iii) implementing land acquisition, resettlement, environmental, ethnic minorities and gender activities; (iv) providing technical advice to communities on the development of water supply and sanitation facilities and their subsequent O&M; (v) implementing an awareness campaign on water use, sanitation, and hygiene; (vi) collecting data and preparing reports.

53. The implementation of the EMP and Environmental Monitoring Plan during the pre-construction and construction phases of the Subproject will be largely the responsibility of the Contractor closely monitored by the PPMU’s Environmental Officer (EO) in coordination with the Design and Build Supervision Consultant (CSC). During the O&M period, the environmental management and monitoring shall be the responsibility of the WTP Operational Unit and the Water and Sanitation Commune Committee. The responsibilities of WTP Operational Unit and the Water and Sanitation Commune Committee are specified in the Environmental Monitoring Plan for each Subproject.

54. The Design-Build Supervision Consultant will monitor the implementation of Environmental Management Plan (EMP) carried out by the Contractors. This work will include but not limited to the following activities:

(i) Monitor implementation of environmental pollution mitigation measures during Construction period by Contractors. Remind the Contractors of their obligations to implement Environmental Management Plan and recommend to the Provincial Project Management Unit (PPMU) of applicable measures when the Contractors do not perform their obligations on Environmental Management;
In pre-construction phase, request the Contractors to take samples of raw water and test water quality in accordance with QCVN 08:2008/BTNMT, column A2 for surface water and QCVN 09:2008 for groundwater resources, respectively. Locations of sampling are specified based on the approved IEE and environmental monitoring plan;

During construction phase, request the Contractors to take samples of raw water and test water quality in accordance with QCVN 08:2008/BTNMT, column A2 for surface water and QCVN 09:2008 for groundwater resources, respectively. Locations of sampling are specified based on the approved IEE and environmental monitoring plan; and

Prepare Environmental Monitoring Chapter for the Quarterly Progress Report.

Responsibilities of Contractor related to environmental management and monitoring shall be:

(i) Updating the EMP and the EMoP based on the final engineering design and/or any changes in the design of the Subproject scheme to be approved by the PPMU

(ii) Establishing an operational system for managing environmental impacts;

(iii) Carrying out all of the monitoring and mitigation measures set forth in the Initial Environmental Examination (IEE), Environmental Assessment and Review Framework (EARF), and any Environmental Management Plan (EMP);

(iv) Allocating the budget required to ensure that such measures are carried out;

(v) Complying with any corrective or preventative actions set out in safeguards monitoring reports that the Employer will prepare from time to time to monitor implementation of the IEE, EARF and EMP; and

(vi) Submitting quarterly reports on the carrying out of such measures to the PPMU.

Environmental obligations in the IEE and EMP and EMoP will be make sure to be included in the bidding documents for both the Design-Build Construction Consultant and the Contractor.

The major responsibilities of the PPMU Environmental Officer in coordination with the CSC will be to ensure implementation and compliance monitoring of the contractor:

(vii) The mitigation measures are being carried out as specified in the EMP.

(viii) The environmental monitoring plan, comprising of taking water samples and analyses are being carried out.

(ix) Reporting is performed in compliance with ADB and GoV requirements.

This Environmental Officer of the PPMU will be trained in environmental management and monitoring to be provided by the PIA Consultant.

The institutional arrangements and responsibilities of the Subproject stakeholders are summarized in table 1.
Table 1: Summary of Institutional Arrangements and Responsibilities

<table>
<thead>
<tr>
<th>Item</th>
<th>Preparation</th>
<th>Review</th>
<th>Updating</th>
<th>Monitoring</th>
<th>Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feasibility Study</td>
<td>Local consultant</td>
<td>PIA consultant</td>
<td>Local consultant</td>
<td>Provincial People’s Committee (PPC) and ADB</td>
<td></td>
</tr>
<tr>
<td>Environmental Protection Commitment (EC)</td>
<td>Local consultant &amp; PPMU</td>
<td>PIA consultant</td>
<td>Local consultant &amp; PPMU</td>
<td>District People’s Committee (DPC)</td>
<td></td>
</tr>
<tr>
<td>EMP &amp; EMoP during construction</td>
<td>PIA consultant</td>
<td></td>
<td>PPMU/EO and CSC</td>
<td>ADB</td>
<td></td>
</tr>
<tr>
<td>EMP &amp; EMoP during O&amp;M</td>
<td>PIA consultant</td>
<td></td>
<td>PPMU/EO and DONRE</td>
<td>ADB</td>
<td></td>
</tr>
<tr>
<td>Environmental Monitoring Chapter in Quarterly Progress Reports</td>
<td>CSC</td>
<td>PIA consultant</td>
<td></td>
<td>ADB</td>
<td></td>
</tr>
</tbody>
</table>

H. Specific Procedures for the Subprojects

60. The CRRWSSSP Subprojects approval is based on the Subproject Appraisal Report (SAR) that includes: (i) feasibility study; (ii) the IEE and EC report document among the safeguard documents (resettlement and ethnic minorities); (iii) a CBA – IEC plan; and (iv) baseline survey covering socioeconomic, health, and water supply and sanitation data.

(i) PPMUs with assistance from PIA Consultant prepare the ADB Rapid Environmental Assessment (REA) checklist for screening and environmental classification of the Subproject

(ii) PIA Consultant to prepare IEE reports including EMP and summary IEE for public consultation.

(iii) For the 6 Pilot Subprojects the PIA Consultant ensures that an IEE is prepared in compliance with the requirements of the Government and ADB, and that adequate consultation with affected people is undertaken in accordance with ADB requirements, and for new Subprojects under the CRRWSSSP the PIA consultant shall prepare the IEE report to comply with the Government and ADB requirements.
(iv) PIA Consultant undertakes review of the IEE summary and EMP reports to ensure their compliance with the requirements of the Government and ADB.

(v) PPMU to obtain necessary permits and/or clearance, as required, from District People’s Committee (DPC) and other relevant government agencies, ensuring that all necessary regulatory clearances are obtained before commencing any civil work on the relevant sections.

(vi) Submit to ADB the IEE or EIA, summary IEE/EIA, and EMP reports and other documents, as necessary.

(vii) PPMU/EO and CSC consultant to ensure that any EMP, including relevant mitigation measures that need to be incorporated during the construction stage by the contractor, are included in the bidding and contract documents.

(viii) PPMU/EO and CSC to ensure that contractors understand their responsibilities to mitigate environmental problems associated with their construction activities.

(ix) PPMU/EO and CSC to ensure and monitor that the EMP, including the monitoring plan will be properly implemented.

(x) In case unpredicted environmental impacts occur during the Subproject implementation stage, prepare and implement as necessary an environmental emergency plan in consultation with DoNRE and other relevant government agencies.

(xi) In case a Subproject needs to be realigned during implementation, review the environmental classification, revise it accordingly, and identify whether a supplementary IEE or EIA is required. If yes, PIA Consultant to carry out the necessary action.

(xii) PPMU to submit quarterly reports on implementing EMPs, environmental monitoring report, summarizing the overall environmental impacts from the Subprojects to CPMU and ADB.

61. The preparation and registration of the Environmental Protection Commitment (EC) document shall contain and encompass the following activities as provided under Circular No. 26/2011/TT-BTNMT dated 18th July, 2011.

(i) Content of the Environmental Protection Commitment

a) Brief about the Subproject, including: the name and address of the Subproject owner; the name of the Subproject and Subproject location; scale and capacity of the Subproject; production technology; list of quantity and the type of the materials and fuel used for the implementation of the Subproject.

b) The type of waste arising: the maximum load and maximum concentration of each waste type, if any;

c) Commitment to implementation of impact mitigation measures, treatment waste in compliance with the legislation on the environmental protection.

(ii) Time for registration of the EC

a) For an investment project with work items subject to construction licensing, the project owner shall register the written environmental protection commitment before proposing a competent agency to grant or modify a construction license.
b) Project owners to make another written environmental protection commitment for the investment project or production, business or service activities in the following cases:

(1) Change of location of the project or production, business or service activities;

(2) Failure to carry out the project or production, business or service activities within twenty-four (24) months after registering the written environmental protection commitment;

(3) Change of size, capacity or technology, resulting in increased adverse environmental impacts or scope of impacts.

(iii) The procedure of registration of the EC

a) The Subproject owner shall send the dossiers of the EC’s registration to the competent authority, particularly the District People’s Committee (DPC).

b) Within five working days after receipt, DPC shall send the official note to the Subproject owner notifying about the accepting or not accepting the EC’s report. When it is unacceptable, it must be stated with the reason.

c) Within two working days, the DPC shall be responsible for sending a copy of the registered EC to:

- Subproject owner (PPMU);
- Environmental management agency at District level; and
- Commune People’s Committee (CPC) where the Subproject will be undertaken.

62. After completing the EC registration procedure, the PPMUs shall send a hard copy of EC and DPC’s Notice on acceptance of registration of EC to CPMU and PIA Consultant for reference and inclusion in the Subproject Appraisal Report.
### Table 2: Proposed Implementation Schedule for Subprojects of Batch 1

<table>
<thead>
<tr>
<th>No.</th>
<th>Activities</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>4th Quarter</td>
<td>1st Quarter</td>
<td>2nd Quarter</td>
<td>3rd Quarter</td>
</tr>
<tr>
<td>I</td>
<td><strong>Pre-construction phase</strong></td>
<td></td>
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<td></td>
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<tr>
<td>1</td>
<td>Preparation and Revision of FS before submission to ADB and PPC for approval</td>
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<tr>
<td>2</td>
<td>Preparation, Revision and submission of EC for approval by DPC</td>
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<tr>
<td>3</td>
<td>Submission of FS to ADB and PPC for approval</td>
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<tr>
<td>4</td>
<td>Validating environmental data and updating IEE Report and submission to ADB</td>
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<tr>
<td>5</td>
<td>Env’tal Training for PPMUs and CPMU</td>
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<tr>
<td>5</td>
<td>Updating of EMP based on Final Detailed Design or Changes in the Design</td>
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<tr>
<td>II</td>
<td><strong>Construction phase</strong></td>
<td></td>
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<td></td>
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<tr>
<td>1</td>
<td>Implementation of EMP and EMoP during Construction Phase</td>
<td></td>
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<td></td>
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<tr>
<td>2</td>
<td>Quarterly Progress Report, to CPMU and ADB</td>
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<tr>
<td>III</td>
<td><strong>O&amp;M phase</strong></td>
<td></td>
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</tr>
<tr>
<td>1</td>
<td>Implementation of EMP and EMoP during M&amp;O Phase</td>
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</tbody>
</table>
* For the water supply projects belonging to CRRWSSSP, if the FS report is approved, application for a construction license is waived (in accordance with Circular no. 09-2005-TT-BXD).
V. ENVIRONMENTAL MONITORING AND REPORTING

63. To ensure that the ADB environmental requirements and all applicable GoV environmental laws, regulations and standards are met, prior to the start of construction and during construction and operation of the Subproject, the EMP should be updated by the Design and Build Contractor based on the final Detailed Design of the Subproject and approved by the PPMU.

64. In the pre-construction and during construction phases of the Subproject, Design and Build Supervision Consultant (CSC) will be responsible for preparing and submitting quarterly environmental management and monitoring implementation status reports to PPMU/EO. During construction, the Contractor shall prepare and submit the required reports based on the periodic measurements and water quality analyses and quarterly reports with a section on implementation status of environmental management and monitoring measures to PPMU/EO. In the O&M phase, a quarterly operation status reports will be prepared by Technical Operational Staff (OS) of the Operational Unit (OU) of the Water Supply Treatment Plant and members of WSCC separately, based on the collected data, and also submitted to PPMU/EO.

65. The PPMU/EO will be responsible for checking the quarterly reports submitted by the CSC, the Contractor and/or Technical operational staff and member of WSCC and field verified whether or not the Contractor has complied with the approved conditions as stated in the EMP and requirements in the Environmental Monitoring Plan. The EO also will be responsible to ensure data collection including water sampling and analyses and consolidation of quarterly reports from the Contractor and the CSC and/or Technical operational staff and member of WSCC; and submit to PPMU, who will in turn submit to CPMU and PIA Consultant. The report will be prepared based on field inspection, investigation, consultation and information given in the monitoring report and should be submitted within 15 days of the end of each quarter. The CPMU will consolidate these quarterly reports into quarterly progress reports that will be finalized and circulated to ADB, MARD, and MoH, within 1 month of the end of the reporting quarter.

66. The report should accurately record site observation whether mitigation measures and measurements are carried out according to the Environmental Management Plan and the Environmental Monitoring Plan. The report should also include cases of compliance and non-compliance and the corresponding further mitigation measures to be adopted to correct the non-compliances and also include the outcome of the monitoring, important issues identified and the measures to be undertaken to ameliorate them. A template for environmental management and monitoring report is attached as Annex 2.

VI. PUBLIC CONSULTATION AND INFORMATION DISCLOSURE

67. For a Category A and B projects ADB requires Public Consultation. Consultation is required at least twice during the subproject preparation and one during construction.

68. First, during the IEE preparation as part of the scoping stage to define the subproject and address any environmental issues that affect the local communities, NGOs, governments, and other interested parties and to get feedback from the stakeholders and the affected people of the Subproject, and second, right prior to the
start of construction, the IEE is disclosed to the public for more comments, especially on the EMP and Environmental Monitoring Plan.

69. This section will (i) describe the process undertaken to involve the public in Subproject design and recommended measures for continuing public participation; (ii) summarize major comments received from beneficiaries, local officials, community leaders, NGOs, and others, and describe how these comments were addressed; (iii) if possible summarize public acceptance or opinion on the proposed Subproject; and (vi) describe other related materials or activities (e.g., press releases, notifications) as part of the effort to gain public participation. This section will provide of summary of information disclosed to date and procedures for future disclosure.

70. During the IEE preparation, public consultation is aimed to inform and solicit comments from the stakeholders, local officials, commune leaders and NGOs of the proposed Subproject and the possible environmental and social impacts as well as to collect opinions from people who may be affected by the proposed subproject. Assistance is to be provided by the local administrations (District and Commune PC). At this stage, the following information should be given to ensure that there is adequate exchange of information and opinion:

(i) A summary of the proposed works under the Subproject;

(ii) A summary of Subproject objectives and likely positive and negative environmental impacts, covering the construction phase and operational impacts;

(iii) Invitation for feedback in respect of any areas of concern that the public may have, and suggested means of implementation;

(iv) Acceptability of the proposed works to the public; and

71. The dates, attendees, topics covered and conclusions should be recorded and included with the IEE report. These are to take the form of meetings at which the findings of the IEE will be presented in addition to key background information. Comments are recorded and the IEE updated accordingly. Another public consultation should be hold before commencement of construction activities to inform the community of the EMP and monitoring plan presented in the IEE as well as to collect their comments and opinions and to obtain their agreement.

72. Once the IEE is completed and updated, it should be made available to the public for a period of at least 30 days. For this purpose, the IEE should be prepared in English and Vietnamese language and distributed to district administrations, where they will be made available for public review.

73. During construction and operation, the PPMU/EO and the Contractor is obliged to inform subproject affected people and other stakeholders of Subproject activities which are likely to create environmental and social impacts, and to allow them to access general information about the subproject. To collect more of affected people’s opinions and complains if available, a public consultation should be conducted during the construction phase.

74. The updated IEE document will be submitted in the Subproject Appraisal Report for ADB’s approval and disclosed on ADB’s website. To facilitate the required consultations with affected groups and local NGOs, the information about the Subproject’s environmental issues as well as technical data needs to be prepared in both English and Vietnamese. The Vietnamese version of the IEE shall be attached in
notification boards of Subproject communes. Other related documents shall also be attached for references. The IEE report will be made available to the interested parties upon request. In addition, the IEE reports of the subproject will be disclosed at ADB office in Hanoi.

VII. GRIEVANCE MECHANISM

75. To continuously receive feedback from the Subproject’s beneficiaries, the grievance redress mechanism in accordance with ADB’s guidelines shall be introduced to communities and maintained for the duration of the Subproject. The PPMU will establish a Subproject Site Office (SSO) in the commune where people’s complaints can be lodged. The Subproject site office will be used for (a) construction supervision; (b) disclosing all the safeguard documents; (c) receiving and responding to the comments/feedbacks from the community.

76. If people affected by the proposed Subproject have any grievances they could raise their concerns to the contractors, the CSC, the project owner and relevant government officials through the grievance redress mechanism set up for the Subproject. Affected people’s complaints should be addressed and resolved by the contractors, the CSC and the PPMU within 3 weeks from the date of complaint receipt. If the affected people are not satisfied with the resolutions or in the absence of any response within the stipulated time, they can lodge their complaints to the competent authorities at higher levels such as the concerned CPC at commune level and the Environmental Division of the DPC at district level. Procedures of lodging complaints and resolutions at these levels are in compliance with the GoV’s regulations. All records of the public meetings and how grievances are addressed will be maintained by the CSC and the PPMU at the SSO and the public will have access to these records.

VIII. FINDINGS AND RECOMMENDATIONS

77. This section will include an evaluation of the screening process and recommendation will be provided whether significant environmental impacts are expected that require EIA report. If there is no need for EIA or further study, the IEE report becomes the completed environmental assessment for the Subproject and no follow-up EIA will be needed. If an EIA is needed, then this section will include a brief terms of reference (TOR) for the needed follow-up EIA, including approximate descriptions of work tasks, professional skills required, time required, and estimated costs.
ANNEX 1      ADB RAPID ENVIRONMENTAL ASSESSMENT (REA) CHECKLIST
ANNEX 1

ADB RAPID ENVIRONMENTAL ASSESSMENT (REA) CHECKLIST

Rapid Environmental Assessment (REA) Checklist

Instructions:

□ This checklist is to be prepared to support the environmental classification of a project. It is to be attached to the environmental categorization form that is to be prepared and submitted to the Chief Compliance Officer of the Regional and Sustainable Development Department.

□ This checklist is to be completed with the assistance of an Environment Specialist in a Regional Department.

□ This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB checklists and handbooks on (i) involuntary resettlement, (ii) Indigenous Peoples planning; (iii) poverty reduction, (iv) participation; and (d) gender and development.

□ Answer the questions assuming the “without mitigation” case. The purpose is to identify potential impacts. Use the “remarks” section to discuss any anticipated mitigation measures.

Country/Project Title: __________________________

Sector Division: __________________________

<table>
<thead>
<tr>
<th>SCREENING QUESTIONS</th>
<th>YES</th>
<th>NO</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Project Siting</td>
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<tr>
<td>Is the project area…</td>
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<tr>
<td>▪ Densely populated?</td>
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<td></td>
<td></td>
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<tr>
<td>▪ Heavy with development activities?</td>
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<tr>
<td>▪ Adjacent to or within any environmentally sensitive areas?</td>
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<tr>
<td>▪ Cultural heritage site</td>
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<tr>
<td>▪ Protected Area</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>▪ Wetland</td>
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<td></td>
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<tr>
<td>▪ Mangrove</td>
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</tr>
<tr>
<td>▪ Estuarine</td>
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### SCREENING QUESTIONS

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<th>YES</th>
<th>NO</th>
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<tbody>
<tr>
<td>Buffer zone of protected area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special area for protecting biodiversity</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Bay</td>
<td></td>
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</tr>
</tbody>
</table>

### B. Potential Environmental Impacts

Will the Project cause…

- pollution of raw water supply from upstream wastewater discharge from communities, industries, agriculture, and soil erosion runoff?
- impairment of historical/cultural monuments/areas and loss/damage to these sites?
- hazard of land subsidence caused by excessive ground water pumping?
- social conflicts arising from displacement of communities?
- conflicts in abstraction of raw water for water supply with other beneficial water uses for surface and ground waters?
- unsatisfactory raw water supply (e.g. excessive pathogens or mineral constituents)?
- delivery of unsafe water to distribution system?
- inadequate protection of intake works or wells, leading to pollution of water supply?
- over pumping of ground water, leading to salinization and ground subsidence?
- excessive algal growth in storage reservoir?
- increase in production of sewage beyond capabilities of community facilities?
- inadequate disposal of sludge from water treatment plants?
### TABLE 1

<table>
<thead>
<tr>
<th>SCREENING QUESTIONS</th>
<th>YES</th>
<th>NO</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>inadequate buffer zone around pumping and treatment plants to alleviate noise and other possible nuisances and protect facilities?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>impairments associated with transmission lines and access roads?</td>
<td></td>
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<tr>
<td>health hazards arising from inadequate design of facilities for receiving, storing, and handling of chlorine and other hazardous chemicals.</td>
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</tr>
<tr>
<td>health and safety hazards to workers from the management of chlorine used for disinfection and other contaminants?</td>
<td></td>
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<tr>
<td>dislocation or involuntary resettlement of people?</td>
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<tr>
<td>social conflicts between construction workers from other areas and community workers?</td>
<td></td>
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</tr>
<tr>
<td>noise and dust from construction activities?</td>
<td></td>
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<tr>
<td>increased road traffic due to interference of construction activities?</td>
<td></td>
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</tr>
<tr>
<td>continuing soil erosion/silt runoff from construction operations?</td>
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<tr>
<td>delivery of unsafe water due to poor O&amp;M treatment processes (especially mud accumulations in filters) and inadequate chlorination due to lack of adequate monitoring of chlorine residuals in distribution systems?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>delivery of water to distribution system, which is corrosive due to inadequate attention to feeding of corrective chemicals?</td>
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<tr>
<td>accidental leakage of chlorine gas?</td>
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<tr>
<td>excessive abstraction of water affecting downstream water users?</td>
<td></td>
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<tr>
<td>competing uses of water?</td>
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<tr>
<td>increased sewage flow due to increased water supply</td>
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<tr>
<td>increased volume of sullage (wastewater from cooking and washing) and sludge from wastewater treatment plant</td>
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</tbody>
</table>
ANNEX 2

TEMPLATES OF ENVIRONMENTAL MANAGEMENT PLAN AND ENVIRONMENTAL MONITORING PLAN
ANNEX 2

TEMPLATE OF ENVIRONMENTAL MANAGEMENT PLAN (EMP)

<table>
<thead>
<tr>
<th>SUBPROJECT PHASE Activities/Impacts</th>
<th>MITIGATION MEASURES</th>
<th>IMPLEMENTING RESPONSIBILITY</th>
<th>SUPERVISION RESPONSIBILITIES</th>
<th>BUDGET REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. PRE-CONSTRUCTION PHASE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Survey of unexploded bomb(s) in the Subproject area</td>
<td></td>
<td></td>
<td>Provincial Military Command</td>
<td>PPMU/EO and CSC</td>
</tr>
<tr>
<td>• Damage property and hurt people</td>
<td>Establish safe buffer zone during disarmament, proper fencing, protective barriers, sufficient signal, site supervisors and information disclosure.</td>
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<tr>
<td>II. CONSTRUCTION PHASE</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1. Land clearing, grading and excavation</td>
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</tr>
<tr>
<td>• Soil erosion and landslide may occur due to disturbance/removal of vegetative cover</td>
<td>Schedule construction during dry months; Supervision and proper implementation of construction activities.</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td></td>
<td>Re-plant trees and re-seeding of indigenous grasses at the end of/or completion of construction activities.</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td></td>
<td>Cover exposed soil from diggings and stock piles and soil during the rainy days.</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td>• Uncontrolled disposal of excessive soil and construction debris</td>
<td>Disposal sites must be selected and approved before construction</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td>SUBPROJECT PHASE Activities/Impacts</td>
<td>MITIGATION MEASURES</td>
<td>IMPLEMENTING RESPONSIBILITY</td>
<td>SUPERVISION RESPONSIBILITIES</td>
<td>BUDGET REQUIREMENT</td>
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<tr>
<td>Damage to the road, particularly for installation of transmission and distribution pipelines</td>
<td>Restoration of existing road right after completion of each construction item</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td>Traffic disruption</td>
<td>Schedule transport and hauling of construction materials during light traffic hours. Arrange adequate traffic detour, and provide sufficient signal &amp; warning lights.</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td>Dust</td>
<td>Regularly spray water on dry and exposed soil in construction site and along the road;</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td></td>
<td>Trailer-truck hauling and transporting construction materials must be covered with canvas</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td></td>
<td>Tires and body of vehicles must be washed with water when returning to public roads from WTP construction site.</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td>Noise &amp; vibration</td>
<td>Contractor to maintain equipment and transport vehicles in proper working order and ensure that muffler and other measures are installed to reduce noise in compliance with TCVN 5948:1999/BTNMT</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td></td>
<td>As much as possible implement working hours between 07:00 and 17:00;</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td>SUBPROJECT PHASE Activities/Impacts</td>
<td>MITIGATION MEASURES</td>
<td>IMPLEMENTING RESPONSIBILITY</td>
<td>SUPERVISION RESPONSIBILITIES</td>
<td>BUDGET REQUIREMENT</td>
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<td>(4)</td>
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<tr>
<td>• Emission from construction vehicles, equipment and machinery</td>
<td>The discharge standards promulgated under the Environmental Protection Law 2005 will be strictly adhered. All vehicles, equipment, and machinery used for construction will conform to the relevant Vietnam standards. All vehicles, equipment and machinery used for construction will be regularly maintained to ensure that pollution emission levels comply with the relevant regulations, namely QCVN 05:2009.</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td>2. Construction camps and workers’ activities</td>
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<tr>
<td>• Solid waste and gray water disposal</td>
<td>Construction of temporary latrines, at a distance from the proposed wells for the WTP. Regular collection and disposal of garbage to the proper disposal site.</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td>• Contamination of soil/water by fuel and lubricants</td>
<td>Ensure proper handling of oil and fuel materials. Fuel storage will be in proper bounded areas. Fuel storage and refilling areas will be located at least 300 m from all cross drainage structures and important water bodies, or as directed by the consultant. Any spillage oil shall be neutralized by a neutralizer, and reported to the CSC consultant.</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td>• Public and worker safety</td>
<td>Ensure proper fencing and protective barriers in construction area. Sufficient signal and information disclosure about the Subproject must be conducted.</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
</tbody>
</table>
### SUBPROJECT PHASE

<table>
<thead>
<tr>
<th>Activities/Impacts</th>
<th>MITIGATION MEASURES</th>
<th>IMPLEMENTING RESPONSIBILITY</th>
<th>SUPERVISION RESPONSIBILITIES</th>
<th>BUDGET REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td>(1)</td>
<td>Construction workers and supervisors must be equipped with protective clothes gears in the construction site.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>(2)</td>
<td>Reduce disruptions to business and leisure activities nearby the beach due to pipe installation. Appropriate disposal of solid waste and wastewater to avoid causing pollution to the coastline and estuarine zone</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td>(3)</td>
<td>Realignment of water pipeline/distribution lines and relocation of proposed construction sites</td>
<td>Contractor</td>
<td>PPMU/EO and CSC</td>
<td>Included in the Contractor’s financial bid</td>
</tr>
<tr>
<td>(4)</td>
<td>Equipped workers with gas masks and protective clothing and gears such as boots, helmets during working. WTP operator will strictly comply with instructions of use and storage of chemicals. If leakage or spillage events happen, the WTP operator will inform to relevant agency to deal with immediately.</td>
<td>OU</td>
<td>PPMU/EO, WSCC and DoNRE</td>
<td>O&amp;M budget</td>
</tr>
<tr>
<td>(5)</td>
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</tbody>
</table>

### III. OPERATION & MAINTENANCE PHASE

#### 1. Environmental and Health Safety

<table>
<thead>
<tr>
<th>Activities/Impacts</th>
<th>MITIGATION MEASURES</th>
<th>IMPLEMENTING RESPONSIBILITY</th>
<th>SUPERVISION RESPONSIBILITIES</th>
<th>BUDGET REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Health and safety hazards to workers in the WTP from water disinfection and other related activities Equipped workers with gas masks and protective clothing and gears such as boots, helmets during working.</td>
<td>OU</td>
<td>PPMU/EO, WSCC and DoNRE</td>
<td>O&amp;M budget</td>
</tr>
<tr>
<td>(2)</td>
<td>Risks caused by chemicals used for water treatment WTP operator will strictly comply with instructions of use and storage of chemicals. If leakage or spillage events happen, the WTP operator will inform to relevant agency to deal with immediately.</td>
<td>OU</td>
<td>PPMU/EO, WSCC and DoNRE</td>
<td>O&amp;M budget</td>
</tr>
</tbody>
</table>

List of Abbreviations:
## TEMPLATE OF ENVIRONMENTAL MONITORING PLAN (EMoP)

<table>
<thead>
<tr>
<th>SUBPROJECT PHASE</th>
<th>PARAMETERS</th>
<th>MONITORING METHOD</th>
<th>LOCATION</th>
<th>FREQUENCY</th>
<th>RESPONSIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. PRE-CONSTRUCTION PHASE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Baseline Data:</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>• Raw (ground/ surface) water quality</td>
<td>Specified parameters listed in QCVN 09:2008/BTNMT or in QCVN 08:2008/BTNMT</td>
<td>Lab test</td>
<td>Specified location</td>
<td>Specified frequency</td>
<td>PPMU/EO and Contractor</td>
</tr>
<tr>
<td>2. Unexploded bomb(s) in the subproject area</td>
<td>Location and number of unexploded bombs</td>
<td>Inspection and reports</td>
<td>WTP site</td>
<td>To be done before the construction</td>
<td>PPMU/EO and Provincial Military Command</td>
</tr>
<tr>
<td><strong>II. CONSTRUCTION PHASE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Raw (ground/ surface) water quality</td>
<td>Specified parameters listed in QCVN 09:2008/BTNMT or in QCVN 08:2008/BTNMT</td>
<td>Lab test</td>
<td>Specified location</td>
<td>Specified frequency</td>
<td>PPMU/EO and Contractor</td>
</tr>
<tr>
<td>• Land clearing, grading and excavation</td>
<td>Volume and composition of excess soil, construction debris, soil erosion and landslide, disturbance/ removal of vegetation cover.</td>
<td>Measurement of the volume and reports</td>
<td>Construction site: WTP, pumping station, water distribution lines</td>
<td>1x weekly</td>
<td>PPMU/EO and CSC</td>
</tr>
</tbody>
</table>
### SUBPROJECT PHASE

<table>
<thead>
<tr>
<th>Activities/Items</th>
<th>PARAMETERS</th>
<th>MONITORING METHOD</th>
<th>LOCATION</th>
<th>FREQUENCY</th>
<th>MONITORING RESPONSIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Dust suppression</td>
<td>Inspect if dust suppression is maintained and is effective.</td>
<td>Ocular inspection and reports</td>
<td>Construction site</td>
<td>1x weekly</td>
<td>PPMU/EO and CSC</td>
</tr>
<tr>
<td>• Installation of transmission and distribution pipelines</td>
<td>Damage to roads, buildings, structures and public utilities.</td>
<td>Ocular inspection</td>
<td>Construction site</td>
<td>1x weekly</td>
<td>PPMU/EO and CSC</td>
</tr>
<tr>
<td>• Industrial and domestic solid waste</td>
<td>Volume and composition of wastes (organic, inorganic, and hazardous components (%))</td>
<td>Measurement of the volume and reports</td>
<td>Disposal/Dump site</td>
<td>1x monthly</td>
<td>PPMU/EO and CSC</td>
</tr>
<tr>
<td>• Domestic waste water from temporary latrines and daily activities of workers</td>
<td>Volume produced and location of disposal site, communal sewage system</td>
<td>Measurement of the volume and reports</td>
<td>Construction site</td>
<td>1x monthly</td>
<td>PPMU/EO and CSC</td>
</tr>
<tr>
<td>• Construction area cleanup</td>
<td>Traces of oil, grease, fuel and solid waste and hazardous materials</td>
<td>Ocular inspection</td>
<td>Construction site</td>
<td>1x monthly</td>
<td>PPMU/EO and CSC</td>
</tr>
</tbody>
</table>

### III. OPERATION & MAINTENANCE PHASE

<table>
<thead>
<tr>
<th>Activities/Items</th>
<th>PARAMETERS</th>
<th>MONITORING METHOD</th>
<th>LOCATION</th>
<th>FREQUENCY</th>
<th>MONITORING RESPONSIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Raw (ground/ surface) water quality</td>
<td>Specified parameters listed in QCVN 09:2008/BTNMT or in QCVN 08:2008/BTNMT</td>
<td>Lab test</td>
<td>Specified location</td>
<td>Specified frequency</td>
<td>PPMU/EO and OU</td>
</tr>
<tr>
<td>• Treated water quality</td>
<td>Specified parameters listed in QCVN 01:2009/BYT</td>
<td>Lab test</td>
<td>Treated water basin</td>
<td>1x quarterly</td>
<td>PPMU/EO and OU</td>
</tr>
<tr>
<td>• Wastewater from WTP</td>
<td>Specified parameters listed in QCVN 40:2011/BTNMT</td>
<td>Lab test</td>
<td>Sludge lagoon</td>
<td>Twice/year</td>
<td>PPMU/EO and OU</td>
</tr>
<tr>
<td>• Sludge from WTP</td>
<td>Volume produced</td>
<td>Measurement of the volume and reports</td>
<td>WTP site</td>
<td>Quarterly</td>
<td>PPMU/EO and OU</td>
</tr>
</tbody>
</table>

**List of Abbreviations:**

The Joint Venture of CDM International Inc., Nippon Koei Co. Ltd. and Vinaconsult JSC
CSC  Design-Build Supervision Consultant
EO  Environmental Officer
OU  Operation Unit
PPMU  Provincial Project Management Unit
WTP  Water Treatment Plant
ANNEX 3  ENVIRONMENTAL MANAGEMENT PLAN AND MONITORING REPORT FORMS
ANNEX 3

ENVIRONMENTAL MANAGEMENT AND MONITORING REPORT FORMS

Subproject Implementation Progress

<table>
<thead>
<tr>
<th>Reporting period (Date):</th>
<th>Work program/Subproject Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subproject status:</td>
<td></td>
</tr>
<tr>
<td>a. On-going activities/site works:</td>
<td>provide details of specific activities such as earthworks, vegetation clearing, borrow pit operation, establishment of construction camp, etc. including locations, schedule, etc.</td>
</tr>
<tr>
<td>b. Construction activities during the previous month</td>
<td></td>
</tr>
<tr>
<td>b. Construction activities for the next month</td>
<td></td>
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</tbody>
</table>

Previous report date: 
Persons met and dates: 
Report prepared by: 

1. Environmental Monitoring
   a. Summary of Compliance with Environmental Mitigation Measures

<table>
<thead>
<tr>
<th>Specific Mitigation Measures</th>
<th>Compliance Attained (Yes, No, Partial)</th>
<th>Comment on Reasons for Non-Compliance</th>
<th>Issues for Further Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
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<td>2.</td>
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<td>3.</td>
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</tbody>
</table>

b. Issues for Further Action

<table>
<thead>
<tr>
<th>Issue</th>
<th>Cause</th>
<th>Required Action</th>
<th>Responsibility</th>
<th>Timing</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old Issues from Previous Reports</td>
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<td>2.</td>
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<tr>
<td>New Issues from this Report</td>
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<td>1.</td>
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<td>2.</td>
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</tbody>
</table>
2. Environmental Effects Monitoring
   a. Environmental Inspection and Monitoring Results

<table>
<thead>
<tr>
<th>Monitoring Parameter</th>
<th>Comparison to Relevant Standard / Criteria</th>
<th>Comment on Incidences of Exceedance</th>
<th>Issues for Further Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
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<td>2.</td>
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<td>3.</td>
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</tr>
</tbody>
</table>

   b. Problems/Issues for Further Action

<table>
<thead>
<tr>
<th>Issue</th>
<th>Cause</th>
<th>Required Action</th>
<th>Responsibility</th>
<th>Timing</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old Problems/Issues from Previous Reports (if any)</td>
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</tr>
<tr>
<td>1.</td>
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<td>2.</td>
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<td>New Problems/Issues from this Report</td>
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3. Compliance with EMP
   a. Determine if the required mitigation measures are sufficient or still appropriate considering current site conditions and on-going site works.
   b. Describe any difficulties related to the implementation of the proposed mitigation measures. Indicate any changes proposed by the contractor to improve environmental protection.

4. Permits:
   a. Indicate any environmental permit/license/consent obtained during the previous period or to be obtained for the coming month in order to continue the project construction activities.
   b. Provide details of any environmental permit that the contractor failed to secure prior to conducting any specific activities.

5. Complaint(s)
a. Provide details of any complaints that have been raised by the local population and other stakeholders (who, what, where, when).
b. Document how the complaints were addressed or will be addressed, who are the responsible project staff, specific actions and dates.

6. Environmental Training/Orientation
Provide details of environmental training or orientation carried out during the previous month and the coming month (if any).

7. Summary of Problems/issues Encountered and Recommendations

8. Appendices
   a. Correspondence
   b. Monitoring Results, laboratory analysis
   c. etc.
ANNEX 4  ENVIRONMENTAL PROTECTION COMMITMENT (EC)\textsuperscript{1} REPORT

\textsuperscript{1}In this Annex, some of name is changed corresponding to the situation such as: The Project replace with the Subproject; some contents referring to the other type of project is ignored.
ANNEX 4

ENVIRONMENTAL PROTECTION COMMITMENT (EC)² REPORT

THE COVER AND AUXILIARY COVER PAGE OF
ENVIRONMENTAL PROTECTION COMMITMENT FOR SUBPROJECT


(Project Competent authority/Approval Agency (if any))

(Subproject owner)

ENVIRONMENTAL PROTECTION COMMITMENT

of Subproject (1)

SUBPROJECT OWNER(*)

(Authorized representative of the Subproject owner shall sign, write full name and seal) (**)

CONSULTANT(*) (if any)

(Authorized representative of the Consultant shall sign, write full name and seal)

Month, 20...

Note:
(1) The name of the Subproject;
(*) Only present at auxiliary cover page;
(**) Only the seal required if the Subproject owner is a legal entity.

In this Annex, some of name is changed corresponding to the situation such as: The Project replace with the Subproject; some contents referring to the other type of project is ignored.

The Joint Venture of CDM International Inc., Nippon Koei Co. Ltd. and Vinaconsult JSC
STRUCTURE AND CONTENT REQUIREMENTS OF THE ENVIRONMENTAL PROTECTION COMMITMENT FOR SUBPROJECT


SOCIALIST REPUBLIC OF VIETNAM
Independence – Freedom – Happiness

(Place (the name of the District) where the Subproject will be located), on... month, ... year...

To : (1) .........................................................................................................................................................

We are: (2) ...................................................................................................................................................

Address : ......................................................................................................................................................

We kindly send to (1) our Environmental Protection Commitment for the registration with the following contents:

I. Generation Information

1.1. Name of the Investment Subproject: name the Subproject as in the Investment Subproject (the Feasibility Study or equivalent document).

1.2. Business name or Subproject owner name: …

The representative of the Subproject owner: …

1.3. The address of representative of the Subproject owner: …

1.4. The head of representative of the Subproject owner: …

1.5. Contact with the representative of the Subproject owner: (phone number, fax number, E-mail …).

1.6. Location of the Subproject

Description of geographical location (coordinates according to current standards and boundaries) of area that the Subproject will be set up, together with the diagrams that pointing out the natural objects (rivers, lakes, roads); the economic-social objects (residential areas, urban areas, production facilities, business services, cultural-religious-historical facilities); current use of land in the Subproject area; and other objects around the Subproject area.

Specify what and where will be the receiver the discharge of water, emission of the subproject, together with the current environmental standards, technical regulations applied to these issue.

1.7. Scale of the production, business or service
Summarizing on production size/capacity; production technology; listing the equipment, machinery using for the subproject and describing their current situation.

1.8. Demand for the input of materials and fuel

- Demand for the use of materials and fuel for the production is calculated in days, months or years, and mode of delivery.
- Demand and resource for the water and electric supply of the production.

Requirement:

- For Subproject with the EC have been registered but not implemented within 24 months from the date of EC’s register, the content of part I of this Annex should describe the changes relating to the address, size, capacity of this Subproject.

II. The Environmental Impacts

2.1. The types of waste arising

2.1.1. Emissions: ...
2.1.2. Wastewater: ...
2.1.3. Solid waste: ...
2.1.4. Other wastes: ...

Should point out the adequate information about: arising resource, the total amount generated per unit of time, composition of waste and content/concentration of each it’s composition.

2.2. Other Impacts

Summarizing the impacts (if any) due to: erosion, sliding, subsidence land; the erosion of river and stream bank, lakeshore, seashore; the sedimentation of river, stream, reservoir; the change of surface and ground water level; salinization and alum intrusion; climate changes; the degradation of environmental components; the transformation of biological diversity and other factors.

III. The mitigation measures of the adverse impacts

3.1. Waste treatment

- Each type of waste arisen must be given the adequate treatment measure, notes on the feasibility, efficiency / effectiveness of treatment. In case of impossible or unlikely to give the appropriate treatment measure due to the subproject scope, it must be stated the real reasons and recommendations to the relevant agencies to give the solution and decision.

- It must be demonstrated that, the waste will be treated to what extent after application of the treatment measure, compare with current standards. When it is not meet the requirement, it must be stated the real reasons and recommendations to the relevant agencies to give the solution and decision.

3.2. The mitigation of other impacts

Each type of waste arisen must be given the adequate treatment measure, notes on the feasibility, efficiency / effectiveness of treatment. In case of impossible or unlikely to give the appropriate treatment measure due to the subproject scope, it must be stated the real reasons and recommendations to the relevant agencies to give the solution and decision.
Requirement:

For Subproject with the EC have been registered but not implemented within 24 months from the date of EC’s register, the content of part III of this Annex must describe the changes of adverse impact mitigation measure, proposed prevention and respond solution to the subproject environmental incidents.

IV. Environmental treatment works, environmental monitoring programs

4.1. The environmental treatment works

- List of environmental treatment facilities for solid and liquid waste, emission, and other waste within the framework of the subproject; together with the detailed construction schedule for each of the work;

- The environmental treatment facilities must be detailed described about the type, technical specifications, necessary quantity.

4.2. Environmental monitoring program

It is required to monitor the flow / total of discharge of waste, the specific pollution parameters of waste arising from the subproject’s activities, compare with the Vietnam current standards, with the minimum frequency of one for the six months. The monitoring must be pointed out in the drawing with the legends according to the current standards.

V. Implement commitment

Commitment to implementation of waste treatment measures, other impacts mitigation measures mentioned in this document; commit to reach the current environmental standards and technical regulations; commit to implement the other environmental protection measures according to the Vietnam legislations.

Subproject owner

(Signature, full name, position and seal)

Note:

(1) Distric People Committee shall organize the registration of the EC;

(2) Name of the Representative of the Subproject owner.
ANNEX 5 NOTICE ON ACCEPTANCE OF REGISTRATION OF ENVIRONMENTAL PROTECTION COMMITMENT²

²In this Annex, some of name is changed corresponding to the situation such as: The Project replace with the Subproject; some contents referring to the other type of project is ignored.
ANNEX 5

NOTICE ON ACCEPTANCE OF REGISTRATION
OF ENVIRONMENTAL PROTECTION COMMITMENT


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(1)

SOCIALIST REPUBLIC OF VIETNAM
Independence – Freedom - Happiness

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No:...

(Place (the name of the District) where the Subproject will be located), on... month, .. year...

NOTICE
Acceptance of registration of environment protection commitment (2)

To:(3)

After reviewing the registration document of Environmental protection commitment of the (2), (1) hereby announces the following:

1. The Environment protection commitment of (2) has been registered in (1).
2. (3) shall comply with the contents stated in the Environmental protection commitment.
3. This registered and noticed Environmental protection commitment shall be the basis for the environmental management agencies monitoring, controlling and inspecting on the environmental protection during the implementation of (2).
4. (3) must report to (1) when there are changes, adjust of contents of the Environmental protection commitment and they must be done only upon the official acceptance of (1)./

(4)

To:
(Signature, full name, position, seal)

- As above;
- …
- Central file …

Note:
(1) Name of the District People Commitment organizing the registration of the EC;
(2) Name of the Subproject;
(3) Subproject owner;
(4) Chairman of the District Peoples Committee

4In this Annex, some of name is changed corresponding to the situation such as: The Project replace with the Subproject; some contents referring to the other type of project is ignored.

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