The Northern Delta Transport Development Project (NDTDP)

Environmental Management Process Framework
For Phase 2 Investments

Ministry of Transport, Vietnam Inland Waterway Administration (VIWA), Project Management Unit of Waterways (PMU-W)
8 April 2008
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CEP</td>
<td>Commitment for Environmental Protection</td>
</tr>
<tr>
<td>DMP</td>
<td>Dredge Maintenance Plan</td>
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<tr>
<td>DoNRE</td>
<td>(Provincial) Department of Natural Resources and the Environment</td>
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<tr>
<td>DWT</td>
<td>Deadweight tonnage</td>
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<td>DED</td>
<td>Detailed Engineering Design</td>
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<tr>
<td>EA</td>
<td>Environmental Assessment</td>
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<tr>
<td>EAMPF</td>
<td>Environmental Management Process Framework</td>
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<tr>
<td>EMP</td>
<td>Environmental Management Plan</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>LEP</td>
<td>Law on Environmental Protection</td>
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<td>MONRE</td>
<td>Ministry of Natural Resources and the Environment</td>
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<td>MOSTE</td>
<td>Ministry of Science, Technology and the Environment</td>
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<td>MOT</td>
<td>Ministry of Transport</td>
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<td>NDTDP</td>
<td>Northern Delta Transport Development Project</td>
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<td>NEPA</td>
<td>Department of Environmental Projection (of MONRE)</td>
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<td>OP</td>
<td>(World Bank) Operating Procedure</td>
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<td>PC</td>
<td>People’s Committee</td>
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<td>PMU-W</td>
<td>Project Management Unit – Waterways</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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<tr>
<td>RP</td>
<td>Resettlement Plan</td>
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<td>RPF</td>
<td>Resettlement Policy Framework</td>
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<td>SEA</td>
<td>Strategic Environmental Assessment</td>
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<td>VIWA</td>
<td>Vietnam Inland Waterway Administration</td>
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<td>WB</td>
<td>World Bank</td>
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1 Background

1. This document sets out the process to be followed prior to implementation of the second phase (i.e. Phase 2) of investment activities of the Northern Delta Transport Development Project (NDTDP) to ensure compliance with the Government of Vietnam’s own environmental requirements and that of the World Bank’s Safeguards Policies, thereby ensuring the sustainable environmental management of the project.

2. The Project has three main components to be implemented in two phases. The phases are delineated according to current readiness to implement and not by year of implementation. Phase I investments refer to investments for which all key preparatory works (up to but not including detailed engineering design) have been completed and Phase II investments refer to all the remaining investments for which preparation is ongoing or will take place during the first two years of the Project. Table 1 below shows the investments for each of the two phases.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Investment Activities</th>
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<tbody>
<tr>
<td>1</td>
<td>• Corridor 1 – works along the Northern Corridor between Viet Tri and Quang Ninh.</td>
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</table>
| 2     | • Corridor 3 – works along a Western Corridor between Hanoi and Lach Giang.  
• Works at River Mouth  
• Pilot Ports  
• Ferry Landing Stages |

3. For Phase 1 activities, the necessary environmental assessments were undertaken and completed during project preparation and prior to project appraisal. A full Environmental Assessment Report and its corresponding Environmental Management Plan were prepared by the GoV, reviewed and cleared by the World Bank, and publicly disclosed both locally in Vietnam and also at the WB’s Infoshop in Washington DC.

4. Phase 2 activities, for which preliminary Environmental Analyses were carried out during project preparation, will be governed by the Environmental Management Process Framework set forth in this report. Detailed environmental assessment reports including environmental management plans will be prepared during the detailed planning and engineering work for Phase 2 activities which will take place during project implementation.

5. This Environmental Management Process Framework report is being prepared prior to project appraisal to document the agreements reached between the World Bank and GoV to finalize the Environmental Assessment Reports for Phase 2 activities.
2 Project Description

6. The Project has three main components, the third of which is institutional support. A brief description of Components A and B follows (costs are base costs excluding contingencies):

Component A: Multimodal Transport Corridor Investments (US $146.3 million)

7. This component consists of improvements to two waterway corridors in the Northern Delta Region to increase the efficiency of multimodal transport and supply chains and enhance the environmental sustainability of the waterway system.

8. **Sub-Component A1: Improvements to National Waterway Corridors (US $68.7 million)**—The investments under this subcomponent are in two corridors: (a) a northern corridor between Viet Tri and Quang Ninh, a distance of 280 km; and (b) a western corridor between Hanoi and Lach Giang, a distance of 180 km. The upgrading of the corridors will entail dredging, bend corrections, bank protection, shoal regulation, air clearance improvement at one bridge crossing (by raising the bridge) and provision of aids to navigation.

9. **Sub-Component A2: Improvements to Ninh Co River Estuary and an interconnecting canal between the Day and Ninh Co Rivers with a navigation lock (US $60.5 million)**—The required work will entail dredging the approach channel and connecting canal and construction of breakwaters, a ship lock, bank protection and other river training works.

10. **Sub-Component A3: Improvements to Provincial Ports (US $7.0 million)**—This sub-component support a range of physical improvements designed to increase capacity and demonstrate improved cargo handling methods to acceptable environmental standards at Viet Tri and Ninh Phuc ports. Potential investments may include new wharfs, storage areas, warehouses, road access and waste disposal facilities. The detailed preparation work for this component is ongoing.

11. **Sub-Component A4: Pilot Maintenance Contracts (US $1 million)**—This subcomponent will explore different arrangements for performing maintenance dredging and will pilot a maintenance scheme in the Project’s corridors.

Component B: Investments in Ferry Boat Stages (US $4.6 million)

12. This sub-component will include physical improvements to 15-30 pilot ferry boat stages.
3 GOV’s Environmental Management Requirements

3.1 Relevant Vietnamese Policies and Procedures for Environmental Impact Assessment (EIA)

13. This chapter details the most relevant environmental laws of Vietnam for environmental assessment which will be complied with.

3.1.1 Law on Environmental Protection (LEP)

14. The LEP was approved by the National Assembly on November, 29, 2005 and issued on December 12, 2005 through Order No.29/2005/L/CTN by the State President and enacted on July 01, 2006. Chapter III contains the guidelines for environment assessment (SEA articles 14, 15, 16, 17), environment impact assessment (EIA articles 18, 19,20, 21, 22 23) and commitment in environmental protection (CEP, articles 24, 25, 26, 27).

15. Decree No. 80/2006/NĐ-CP dated August 9, 2006, detailed guidelines in implementation of some articles of the LEP.

16. This decision includes 3 chapters, 25 articles, of which 12 articles of the chapter I are guidelines for SEA, EIA and CEP: This decision lists the inter-sectoral, inter-provincial projects and EIA reports that are under the jurisdiction of the Ministry of Natural Resources and Environment (MONRE). According to this Decree the projects that are required to conduct EIA are: (1) Road projects of class IV with length of over 50km; and (2) the construction and rehabilitation of river or sea ports for ships of 1,000 DWT and over. The EIA reports for these types of projects should be approved by MONRE, the provincial people committee or MOT. Transport projects of lower capacities are required to prepare CEP for appraisal by the district People Committee.

- LEP Requirements for Environmental Impact Assessment Reports

17. Article 18.1 of the new Environment Law provides a list of the projects that are required to conduct environmental impact assessment. These include projects of national importance such as urban area development projects, large scale projects for exploitation of natural resources, and projects for the development of economic zones. Appendix I of Decree 80 implementing the Law on Environment dated 9 August 2006 (“Decree 80”) provides a more comprehensive list of projects requiring environmental impact assessment reports, including all telecommunications infrastructure construction projects, projects on building and repairing ships and projects on exploitation of oil and gas.

18. The environmental impact assessment report shall be made filed together with the feasibility study of the project. The contents of an environment impact assessment report shall include project specifications, operational technology of the project, measures to minimize negative effects on the environment, an undertaking to apply environment protection measures during the construction and operation phases, and opinions of the local commune People's Committee and the population community where the project is carried out. These opinions may be in agreement or disagreement with the project from an environmental protection perspective and shall be set forth in the report for the relevant appraising body's consideration.
19. To obtain the opinion of the community, the project owner shall send a document containing brief contents of the project, environmental impact of the project, measures to minimize such impacts to the People’s Committee and National Front Committee at commune level. A dialogue may be launched if required by the People’s Committee or the National Front Committee.

20. An environmental assessment report may be appraised by an appraisal board or an environment assessment service agency. MONRE is responsible for providing the conditions and guidelines for environment service agencies. MONRE is authorized to form the environment impact assessment report appraisal board, or select an environment impact assessment service agency in respect of projects belonging to the authority of the National Assembly, the Government or the Prime Minister or inter-provincial or inter-ministerial projects. Other ministries are authorized to form environment impact assessment boards or select environment impact assessment service agencies with regard to projects under their respective authority. Provincial People's Committees are responsible for forming environment impact assessment report appraisal boards, or selecting environment impact assessment report appraisal service agencies with regard to the projects under their respective authority and provincial People's Committee’s authority.

21. The agency organizing the appraisal has to inform the project owner about the appraisal result within 3 days of receiving such a result from the appraisal council or the appraisal service agency.

- **LEP Requirements for Environmental Protection**

22. Pursuant to Article 24 of the Environment Law, projects that are not subject to the compulsory environment impact assessment reports must provide an undertaking to protect the environment. The contents of the undertaking must include: (i) the project site; (ii) the form and scale of production, trading and services, materials and raw materials used for the project; (iii) likely waste to be produced from the project; and (iv) an undertaking to apply measures to minimize and treat waste and comply with the laws on environment protection. The undertaking must be registered with the local district People's Committee where the project is located before commencement of the project.

23. Appendix 4 in this Circular gives the structure and content of an EIA report.

24. The other relevant regulations are:

- Law on Mineral Resources, approved by the National Assembly on March 20, 1996.
- Land Law, approved on November 26, 2003 by the National Assembly.

**3.1.2 Decree 81/2006/ND-CP of the Government**

25. This Decree prescribes the penalty for the violation of environmental regulations. Chapter I describes the general provisions for penalties, Article 9 of Chapter II describes
the penalties for violating the EIA regulation and strategic environmental assessment. Project owners can be fined for not conducting an EIA and for not implementing mitigation measures contained in the approved EIA report.

3.2 Vietnamese Standards for the Environment (TCVN)

26. The Vietnamese Standards for the Environment were published by the former Ministry of Science, Technology and Environment (MOSTE) in 1995, 2000, 2001, 2002 and by the Ministry of Science and Technology (MOSTE) in 2006. The environmental standards include standards for air, water, soil and noise. In general, the list of biophysical parameters is broad enough such that most monitoring programmes can employ the standards as basis for evaluation. However, in the absence of standards such as sediment quality, it is a common practice for ODA projects to use standards from other countries or international organisations.

27. The relevant Vietnamese standards to be applied where applicable are:

- Ambient Air Quality Standard (TCVN 5937-2005) and TCVN 5938 - 2005
- Surface Water Quality Standard (TCVN 5942-1995)
- Acoustic Standard (TCVN 5949-1998)
- Fresh Water Quality for Protection of Aquatic Life (TCVN 6774-2000)
- Domestic Wastewater Standard (TCVN 6772-2000)
- Irrigation Water Quality Standard (TCVN 6773-2000)
- Industrial Effluent Standard (TCVN 5945-2005)
- Permissible Noise Level for vehicles (TCVN 5948-1999)
- Vibration and Shock Standards created by Construction and Industry (TCVN 696-2001)
- Soil Quality Standard – Permissible Limits of Pesticides in Soils

3.3 Vietnamese Administrative Set Up in Environmental Management

28. From 2002, the Government of Vietnam has established the administrative and institutional set-up for environmental management. The institutions responsible for environmental management are the following:

- Ministry of Natural Resources and Environment (MONRE)


- Department of Environmental Impact Assessment Appraisal

30. This Department is under MONRE. As stated in Decree 91/2002/ND-CP, the Department’s function is: To appraise environmental impact assessment reports of projects and of business and production establishments.

31. The Department of EIA Appraisal of MONRE is responsible for organizing EIA Committee for approving SEA, EIA reports guided by the government (Decision N 80/2006/ ND – CP).

- MoT as a Sectoral Ministry

32. According to the LEP (2005) the sectoral ministries are responsible for the environmental management of activities within their sectors. The ministries’ responsibilities include the review and approval of EIA reports of the sectoral
development projects. For examples, the Ministry of Transport is responsible for approving development projects guided by the Government (Decision 80/2006/ND-CP).

• **Provincial Peoples Committees (PPCs)**

33. Provincial Peoples Committees have responsibilities in environmental management in their territories. Accordingly, PPCs have functions of reviewing and approving EIA reports for the development project guided by the Government (Decision N 80/2006/ND – CP) in their territories.

• **District Peoples Committees (DPCs)**

34. District PCs have a function in reviewing and appraisal CEP reports for the development projects guided by the Government (Decision N80/2006/ND – CP) in their territories.

• **Provincial Departments of Natural Resources and Environment (DONRE):**

35. In each provincial DONRE there is an Environmental Management Division (EMD). The EMD is responsible for supporting the PPC in environmental management in accordance with the LEP and related laws and regulations. Hence, it is DONRE - and in particular, it’s EMD - that will likely play a key regulatory role in environmental monitoring during project construction and operation of the NDTDP.

### 3.4 EIA Review and Approval Process

36. The following is the current standard procedure for environmental review and appraisal in Vietnam:

a) The project owner undertakes EIA study with or without an assistance of consultants.

b) A full EIA study should be conducted during the feasibility study (FS) stage of the project. Content and structure of an EIA report should be in accordance to the Appendix 4 of the Circular 08/2006/TT – BTNMT of MONRE

c) The project owner submits seven (7) sets of EIA reports together with a letter requesting for the review and approval of the EIA report together with one (1) copy of Feasibility Study Report of the proposed project to the relevant agencies (Department of EIA Appraisal of MONRE or provincial People Committee or Ministry of Transport.

d) After receiving all EIA and F/S reports the relevant environmental authority organizes a Committee, consisting of environmental specialists and technological experts, representatives of Department of Natural Resource and Environment (DONRE) of the concerned provinces for appraisal of the EIA report.

e) The comments and views of the Committee on the EIA report are given to the project owner.

f) The project owner conduct additional studies to clarify all required items of the Committee and revises the report in response to the comments raised by the Committee.

g) An Environmental Approval Paper will be issued after the reception of the revised EIA report, which met the requirements of the Appraisal Committee.
4 World Bank Safeguard Policy Compliance Requirements

4.1 Screening of Project Activities

As part of the analysis of alternatives carried out in the environmental assessment process undertaken during the feasibility design stage, the Project’s proposed investments were screened against all the required policies. Table 2 presents the policies triggered by the Project. While OP 7.50 on Projects on International Waterways was triggered, the Project falls within the exception to the notification requirement set forth in paragraphs 7(a) and (c) of OP 7.50. Involuntary resettlement has been addressed through a Resettlement Policy Framework and Resettlement Plan, both of which have been disclosed.

37. Regarding the potential additional works at the river mouth, these relate to tributaries of the Red River’s international waters that run exclusively in Vietnam and as such the Project would fall within the exception to the notification requirement set forth in paragraph 7(c) of OP7.50 as it is the lowest downstream riparian and does not cause appreciable harm to other states.

38. The continuing EA process for preparation of the required EA documents as set forth in this document will continue to be the primary tool through which all investments are screened.

<table>
<thead>
<tr>
<th>Table 2: Safeguard Policies Triggered by the NDTDP</th>
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<tbody>
<tr>
<td>Environmental Assessment (OP/BP 4.01)</td>
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<tr>
<td>Physical Cultural Resources (OP/BP 4.11)</td>
</tr>
<tr>
<td>Involuntary Resettlement (OP/BP 4.12)</td>
</tr>
<tr>
<td>Projects on International Waterways (OP/BP 7.50)</td>
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</tbody>
</table>

4.2 Environmental Assessment OP 4.01

39. This policy requires environmental assessment (EA) of projects/investments proposed for World Bank financing to help ensure that they are environmentally sound and sustainable, and thus improve decision making. The EA is a process whose depth and type of analysis depend on the nature, scale, and potential environmental impact of the activities proposed for funding under the NDTDP. The EA process takes into account the natural environment (air, water, and land): human health and safety; social aspects (involuntary resettlement, indigenous peoples, and cultural property) and transboundary and global environmental aspects where applicable.

40. Additionally also, OP4.01 requires that an Environmental Management Plan (EMP) be prepared and included as part of the EA report, or where an EA report is not required that a stand alone EMP is prepared. In either case, the World Bank requires that the EMP must be integrated into the project's overall planning, design, budget, and implementation. Such integration is achieved by establishing the EMP within the project so that the plan will receive funding and supervision along with the other components.

41. OP4.01 Annex c states that the environmental management plan (EMP) consists of the set of mitigation, monitoring, and institutional measures to be taken during implementation and operation to eliminate adverse environmental and social impacts,
offset them, or reduce them to acceptable levels. The plan also includes the actions needed to implement these measures. Management plans are essential elements of EA reports for Category A projects such as the NDTDP and the EA may result in a management plan only in cases such as the Ferry Landing Stages of NDTDP. To prepare a management plan, VIWA and its EA design team (a) identify the set of responses to potentially adverse impacts; (b) determine requirements for ensuring that those responses are made effectively and in a timely manner; and (c) describe the means for meeting those requirements. More specifically, the EMP includes the following components.

**Mitigation**

42. The EMP identifies feasible and cost-effective measures that may reduce potentially significant adverse environmental impacts to acceptable levels. The plan includes compensatory measures if mitigation measures are not feasible, cost-effective, or sufficient. Specifically, the EMP;

(a) identifies and summarizes all anticipated significant adverse environmental impacts (including those involving indigenous people or involuntary resettlement);
(b) describes—with technical details—each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate;
(c) estimates any potential environmental impacts of these measures; and
(d) provides linkage with any other mitigation plans (e.g., for involuntary resettlement, indigenous peoples, or cultural property) required for the project.

**Monitoring**

43. Environmental monitoring during project implementation provides information about key environmental aspects of the project, particularly the environmental impacts of the project and the effectiveness of mitigation measures. Such information enables the borrower and the Bank to evaluate the success of mitigation as part of project supervision, and allows corrective action to be taken when needed. Therefore, the EMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the EA report and the mitigation measures described in the EMP. Specifically, the monitoring section of the EMP provides

(a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and
(b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

**Capacity Development and Training**

44. To support timely and effective implementation of environmental project components and mitigation measures, the EMP draws on the EA's assessment of the existence, role, and capability of environmental units on site or at the agency and ministry level. If necessary, the EMP recommends the establishment or expansion of such units, and the training of staff, to allow implementation of EA recommendations. Specifically,
the EMP provides a specific description of institutional arrangements--who is responsible for carrying out the mitigatory and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training). To strengthen environmental management capability in the agencies responsible for implementation, most EMPs cover one or more of the following additional topics: (a) technical assistance programs, (b) procurement of equipment and supplies, and (c) organizational changes.

**Implementation Schedule and Cost Estimates**

45. For all three aspects (mitigation, monitoring, and capacity development), the EMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the EMP. These figures are also integrated into the total project cost tables.

**4.3 Physical Cultural Resources OP4.11**

46. This policy addresses physical cultural resources, which are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings, and may be above or below ground, or under water. Their cultural interest may be at the local, provincial or national level, or within the international community.

47. As part of the initial screening undertaken during project preparation, it became apparent that a number of graves and burial sites may have to be exhumed and relocated.

48. These impacts on physical cultural resources in this project will be addressed as an integral part of the environmental assessment (EA) and resettlement planning process through the resettlement action plans (RAPs).

49. As part of the public consultations required in the EA and RAPs process, the consultative process for addressing the impacts on these physical cultural resources includes relevant project-affected groups, concerned government authorities, and relevant nongovernmental organizations in documenting the presence and significance of physical cultural resources, assessing potential impacts, and exploring avoidance and mitigation options.

**4.4 Consultations**

50. OP4.01 requires during the EA process, that project-affected groups and local nongovernmental organizations (NGOs) be consulted about the project's environmental aspects and takes their views into account. OP 4.01 further requires that such consultations are initiated as early as possible during project preparation and throughout project implementation as necessary to address EA-related issues that affect them.

51. Consultations with these groups began during project preparation as part of the EA process for Corridor 1/Phase 1 activities and in most part this was undertaken simultaneously with the resettlement planning process where feasible and the findings of
these consultations influenced the project design along Corridor 1 to some extent. The findings and how they were taken into account has been recorded in the EA for Phase 1.

52. For the EA process outlined in table 3 for Phase 2, the consultation process will continue to be a part of the EA and resettlement planning process and will influence project design. This will be recorded in the EA and resettlement planning documents.

4.5 Public Disclosure of Documents

53. As per the World Bank’s Policy on Disclosure of Information and OP4.01 all Environmental Assessment reports will be disclosed locally in Vietnam and also at the Info shop in Washington DC.

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1. The management plan is sometimes known as an “action plan.” The EMP may be presented as two or three separate plans covering mitigation, monitoring, and institutional aspects, depending on borrowing country requirements.

2. For projects involving rehabilitation, upgrading, expansion, or remediation of existing environmental problems may be more important than mitigation and monitoring of expected impacts. For such projects, the management plan focuses on cost-effective measures to remediate and manage these problems.

3. For projects having significant environmental implications, it is particularly important that there be in the implementing ministry or agency an in-house environmental unit with adequate budget and professional staffing strong in expertise relevant to the project. MoT in due course will be setting up its own internal Environment Department.
5 Environmental Documents Required for the Project

54. Table 3 presents the environmental reports that have already been completed, while Table 4 presents the documentation required for environmental management of both Phase 1 and 2 of the NDTDP for full compliance with the requirements of both the Government of Vietnam and that of the World Bank. The reports in Table 4 will be completed after appraisal but prior to the start of implementation of the respective sub components.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Components</th>
<th>EA Documents Prepared, Finalized and Disclosed before Project Appraisal</th>
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<tbody>
<tr>
<td>1</td>
<td>Corridor 1</td>
<td>EA/EMP</td>
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<td>2</td>
<td>Corridor 3</td>
<td>Environmental Management Process Framework (EAMPF)</td>
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<td></td>
<td>River Mouth</td>
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<td></td>
<td>Pilot Ports</td>
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<td></td>
<td>Ferry Landing Stages</td>
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<tr>
<td>1 and 2</td>
<td>All Project Components</td>
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Table 3 Environmental Reports Prepared and Disclosed by Project Appraisal

<table>
<thead>
<tr>
<th>Phase</th>
<th>Project Components</th>
<th>Environmental Assessment Reports/Analysis</th>
</tr>
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<tbody>
<tr>
<td>2</td>
<td>Corridor 3</td>
<td>• EA/EMP to be completed during detailed engineering (DED) design phase</td>
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<td></td>
<td>Dredging</td>
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<td></td>
<td>Groin fields</td>
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<td></td>
<td>Bank protection</td>
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<td></td>
<td>Aids to Navigation</td>
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<td>Improvement Works at River Estuary</td>
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<td></td>
<td>By-Pass Canal at Ninh Co Estuary</td>
<td>Detailed and complete EA/EMP/DMP reports to be finalized during DED stage.</td>
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<td></td>
<td>Breakwater and groin field.</td>
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<td></td>
<td>Dredging</td>
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<td></td>
<td>Aids to Navigation</td>
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<td></td>
<td>Canal/Ship Lock between Ninh Co and Day Rivers</td>
<td>Further modeling of river morphology to be carried out</td>
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<td></td>
<td>Pilot Ports</td>
<td>• Full and complete EA/EMP to be finalized during DED stage.</td>
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<td>Viet Tri Port</td>
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<td>Ninh Phuc</td>
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<td></td>
<td>Ferry Boat Stages</td>
<td>• Detailed EMP to be finalized during DED stage.</td>
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</table>

6 Institutional Arrangements

55. The individual Environmental Assessment reports and their corresponding Environmental Management Plans and Dredge Management Plans as stated in Table 4 will be prepared by the VIWA and PMU-W during the Detailed Engineering Design stage of Phase 2 works. These reports would then be reviewed and cleared by MoNRE, MoT, and the WB, before implementation of Phase 2 activities begins.