Summary of Environmental and Social Consideration in Development Study
(Preparatory Study)
(DRAFT)

1. Project Title: The Comprehensive Study on the Sustainable Development of Transport System (VINTRANNSS 2) in Vietnam

2. Type of the Study: Master Plan Study

3. Environmental and Social Consideration Category : B

The project is classified as “Category B” because of the following reasons;

The Study of VINTRANNSS 2 is to formulate a comprehensive Strategy and Master Plan in the field of Transportation Sector at the whole Vietnam Territory, which consists of Phase 1 targeting at five sub-sectors of Road, Railway, Airway, Inland Waterway and, Marine-Transportation and Port & Harbor, and of Phase 2 targeting at North-South Expressway and North-South High-Speed Railway planning. The following shows reasons for the category of each phase.

1) Sub-sectors: Impacts on air pollution caused by exhaust gases from construction equipment and vehicles, noise and vibration generated from construction work and vehicle driving, water pollution and negative damaged on ecosystem caused by human waste from transportation facilities as well as surplus soil and solid waste generated at construction sites, resettlement and split of regional, change of local economy and of traditional life style of minority groups, generation of traffic accidents and etc. are anticipated during construction and operation stages depending on projects’ location and scale of each sub-sector. Therefore, the sub-sector projects can be considered as the classification of “B”.

2) North-South Expressway and High-Speed Railway: Similar environmental and social impacts mentioned above are anticipated depending on the planning of Expressway and High-Speed Railway. In addition to Master Plans on sub-sectors, plans on North-South Expressway and North-South High-Speed Railway will be formulated at Phase 2. Almost same negative environmental and social impacts at Phase 1 mentioned above are prospected for implementing of these plans. The Vietnam Government has, this year, introduced a Strategic Environmental Assessment (SEA) system which shall evaluate environmental and social impacts at policy, plan, and program levels. Accordingly, the plans will be considered based on technical view point including avoidance and mitigation measures for environmental and social impacts to be expected at the study. But, definite outputs and specific projects of the plans are not assumed at the preliminary study stage. Therefore, the plans can be considered as the classification of “B”. It is necessary, however, that the category should be re-considered in case where concrete projects are considered at the study.

4. Responsible agencies which implement the project: Transport Development and Strategy Institute (TDSI) at the Ministry of Transportation (MOT)

5. Outline of the Project

Phase 1: A basic policy and strategy on transport issues at present as well as a long term sustainable transport development strategy up to 2030 will be formulated at the Phase 1 of the study.

Phase 2: A transport master plan up to 2020 will be formulated at the Phase 2A of the study. And a master plan of North-South expressway network will be formulated at the Phase 2B of the study.

6. Description of the project site

The study area covers whole Vietnam territory of which geological formation has an “S” shape land
with 1,650 km length from north to south and which has 10 river basins where many rivers traverse the land. Among them, Red River and Mekong River has formulated huge river deltas. Principal cities exist in each delta where population is concentrated. From north to north-west and west of the land, the configuration forms mountainous and hilly terrain where 53 minority groups of which minimum population is approximately 100, live. East part of the land faces the East China Sea in which mangroves and coral reefs exist. The varied configuration land has a wide variety of biodiversity including 11,458 species of fauna, 21,017 species of flora and around 3,000 species of microorganism.

7. Legal Framework of environmental and social considerations

(1) Relative laws, regulation and standards:

- Law on Environmental Protection (LEP/2005)
- Environmental Impact Assessment (EIA) (as a part of LEP) which is composed of the following:
  - i. Strategic Environmental Assessment (SEA) to be required at Policy, Planning and Programming Stages.
  - ii. EIA to be implemented at F/S stage.
  - iii. Environmental Protection Commitment (EPC) to be prepared after the EIA study.
- Decree No.175/CP: Guiding the Implementation of the LEP.
- Decree No.80/2006/ND-CP: Detailing and Guiding the Implementation of the LEP.
- Circular08/2006/TT-BTNMT: Guiding the Strategic Environment Assessment (SEA), Environmental Impact Assessment (EIA) and Environmental Protection Commitment (EPC).
- TCVN: Vietnam Standard in which discharge standards, environmental standards, sampling standards and etc. are included.

(2) Relative agencies and institutions:

The responsible agencies which implement the project are the Transport Development and Strategy Institute (TDSI) at the Ministry of Transportation (MOT), MOT has the Environmental Division in the Science and Technology Department. The study is to formulate Master Plans consequently a Strategic Environmental Assessment (SEA) study is required in accordance with the relevant laws mention above. The SEA reports shall be elaborated by the Environmental Division in the Science and Technology Department at MOT, however, it is necessary that the study team shall make technical advice on the elaboration. The approval of a SEA report is done by the Department of EIA and Appraisal at the Ministry of Natural Resources and Environment (MONRE). In addition, as an implementing entity of MONRE, Vietnam Environment Protection Agency has been organized by MONRE. Therefore, it is necessary for environment related surveys to be conducted at the study that a cooperative relation shall be formulated between the study team and VEPA.

Approvals of SEA and EIA reports for projects other than the projects which are required SEA listed in the Decree No. 175/CP as well as for projects that are implemented in one province, are done by each provincial Department of Natural Resources and Environment (DONRE) under supervision of each Provincial People’s Committee (PPC). Considering that the study is to formulate a Master Plan study at the national level, the SEA reports will in principle be approved by MONRE. However, as for each project plan of five sub-sectors in the field transport, it is necessary to consider that either MORE or DONRE shall approve each SEA report depending on characteristics of these projects of the five sub-sectors.
8. Provisional Scoping

At a time of an agreement on formulation of a Master Plan in the field of transport sector at the study in principal was reached between the preliminary study team and MOT side, a screening evolution for VINTRANSS 2 Study was implemented with the Screening format of the JICA guidelines for environmental and social considerations in cooperation with the Environmental Division in the Science and Technology Department at MOT (See reference). In accordance with the result of the Screening, discussions with the Environmental Division at MOT, the Department of EIA and Appraisal at MONRE and VEPA, and the environmental preliminary survey, the provisional scoping for the study was appraised as shown in Table 1.

### Table 1  Provisional Scoping for VINTRANSS 2 (1/2)

<table>
<thead>
<tr>
<th>Environmental Items</th>
<th>Magnitude of Impacts</th>
<th>Description</th>
<th>Mitigation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air pollution</td>
<td>B</td>
<td>Air pollution caused by exhaust gases from construction equipment and vehicles are anticipated during construction and operation stages.</td>
<td>• Plans to be considered as promoting diffusion of exhaust gas.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Positive impacts of lowering of exhaust gas emission caused by improvement of average vehicle speed and utilization of public transport systems are expected at the operation stage.</td>
<td>• Plans to be considered as improving traffic flows and promoting utilization of public transport.</td>
</tr>
<tr>
<td>Water pollution</td>
<td>B</td>
<td>Water pollution caused by waste such as surplus soil generated from construction work and methods of Inland Waterway and, Marine-Transportation and Port &amp; Harbor which cross rivers and near sea.</td>
<td>• Plans to be considered as avoiding river crossing wherever possible.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water pollution caused by oil spill generated from Inland Waterway and Marine-Transportation, and human waste and solid waste generated from Port &amp; Harbor facilities at the operation stage.</td>
<td>• Implementation of countermeasures and monitoring for oil spill from navigating ships and vessels.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Water usage C</td>
<td>• Implementation of Solid waste management and construction of sewerage treatment plants for port and harbor facilities.</td>
</tr>
<tr>
<td>Soil pollution</td>
<td>C</td>
<td>Vehicle Gasoline is un-leaded.</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Chemical substances which pollute soil are not handled in the field of transport sector projects.</td>
<td>—</td>
</tr>
<tr>
<td>Waste</td>
<td>B</td>
<td>Generation of surplus soil during construction.</td>
<td>• Surplus Soil and solid waste management shall be planned and surplus soil dumping site shall be selected.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Generation of garbage from vehicles, railways and others and dumping of solid waste along roads at the operation stage.</td>
<td>• Enhancement public awareness on prohibiting of garbage dumping from vehicles and others by environmental education.</td>
</tr>
<tr>
<td>Noise and vibration</td>
<td>B</td>
<td>Construction stage; construction methods such as piling, operation of construction equipment and transportation heavy vehicles generate noise and vibration.</td>
<td>• Restriction of some of construction methods and construction work time.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Operation stage; driving of vehicles and operation of transport systems such as railways generate noise and vibration.</td>
<td>• Compliance with noise and vibration environmental standards.</td>
</tr>
<tr>
<td>Ground subsidence</td>
<td>C</td>
<td>No large scale water pumping</td>
<td>• Restriction of utilization and operation time.</td>
</tr>
<tr>
<td>Offensive odors</td>
<td>C</td>
<td>There are no generation of offensive odors from transport systems and facilities.</td>
<td>—</td>
</tr>
<tr>
<td>Geographical features</td>
<td>B</td>
<td>Highway projects may excavate slopes and construct tunnels</td>
<td>• Implementation of bowling surveys for detecting valuable geographical features and commercial ores.</td>
</tr>
<tr>
<td>Bottom sediment</td>
<td>C</td>
<td>Construction stage; Impacts on rivers and seashores caused by generation of surplus, but temporality.</td>
<td>• Surplus soil management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Operation stage; Utilization of inland waterways and marine transportation may impact on bottom sediment. However, rapid increase in the number of ships and vessels are not expected for a short time.</td>
<td>• Solid waste and human waste management.</td>
</tr>
<tr>
<td>Biota and ecosystem</td>
<td>B</td>
<td>There are no generation of offensive odors from transport systems and facilities.</td>
<td>• Earth and sand transport management with ships and vessels</td>
</tr>
<tr>
<td>Water usage</td>
<td>C</td>
<td>There is no huge amount of water usage like a dam construction project.</td>
<td>• Identification of rare spices and locations of natural reserves and so on.</td>
</tr>
</tbody>
</table>

A: Significant Adverse Impacts on the environment and society, less than Category A, are expected
B: Potential adverse impacts on the environment and society, less than Category A, are expected
C: Minimal or little adverse impacts on the environment and society
### Table 1: Provisional Scoping for VINTRANSS 2 (2/2)

<table>
<thead>
<tr>
<th>Environmental Items</th>
<th>Magnitude of Impacts</th>
<th>Description</th>
<th>Mitigation Measures</th>
</tr>
</thead>
</table>
| Accidents           | B                    | - Generation traffic accidents during construction and utilization of transport facilities and systems at the operation stage. | - Implementation of construction work safety education at the construction stage.  
- Implementation of traffic safety education and construction traffic safety facilities. |
| Global warming      | C                    | - Operation of traffic and transport facilities generate no huge amount of CO$_2$ such as power plants  
- North-south expressway and others will increase total number of vehicle traffic, however, will improve traffic flow with an appropriate vehicle speed which may reduce emission amount of exhaust gas.  
- Incrementation of the utilization of public transport facilities and systems are expected.  
- Rapid increase in the number of vehicles, ships and vessels are not expected for a short time by implementation of the projects. | - Considering mitigation measures for traffic congestion by introducing of traffic plan.  
- Promoting utilization of public traffic and transport facilities and systems.  
- Compliance with exhaust emission standard  
- Considering a policy on promoting utilization of exhaust controlled vehicles ships and vessels. |
| Involuntary resettlement | B                 | - Involuntary resettlement will be gendered depending on project planning areas. 計画対象地域により非自発的住民を生じる。 | - Considering alternative plans which avoid huge involuntary resettlements.  
- Elaborating resettlement plans |
| Local economy such as employment and livelihood etc. | B                    | - Negative impacts on existing agriculture, fishery and traditional handy craft areas are expected in accordance with changes of total amount of traffic volume and traffic flows caused by construction of highways, expressways and so on.  
- Positive impacts on regional economies are expected by constructing new traffic facilities such as drive-in shops and etc. | - Implementation of meetings on traffic facilities’ construction plans to explain to local residents  
- Implementation of grievance services. |
| Land use and utilization of local resources | B                    | - The study area covers whole Vietnam territory including the coastal region where have variety of land use and local resources. | - Planning of an appropriate land use.  
- Planning of an effective utilization of local resources. |
| Social institutions such as social infrastructure and local decision-making institutions | C                    | - Impacts such as split of regions and rise of land prices will be expected due to construction of new roads and railways. However these impacts will be occurred intermittently, therefore no direct impacts on social infrastructure and local decision-making institutions. | - Planning to be considered local economies and local social structures. |
| Existing social infrastructures and services | B                    | - Construction of traffic facilities may temporally affect mobility of population in the construction areas and increase in the number of their and the family members’ utilization of public facilities (including hospitals, schools etc.) | - Constructions of temporally public facilities which shall meet the demand assessment around each construction sit. |
| The poor, indigenous of ethnic people | B                    | - The poor and indigenous of ethnic people spread in the territory | - Considering alternative plans which avoid negative impacts on the poor and indigenous of ethnic people huge involuntary resettlements. |
| Misdistribution of benefit and damage | C                    | - Constriction of transport facilities is highly public projects. | - Considering alternative plans which respects direct and indirect benefit and damage. |
| Local conflict of interests | B                    | - Local conflict of interests such as existing local economies and escalation of land prices around the project sites will be considered. | - Implementation of meetings on traffic facilities’ construction plans to explain to local residents  
- Implementation of grievance services. |
| Gender              | C                    | - No significant impacts on gender issues are expected due to construction of traffic facilities. | - Considering labor conditions which avoid wage gap caused by gender. |
| Children’s rights   | C                    | - No significant impacts on children’s rights are expected due to construction of traffic facilities. | - Considering labor conditions which avoid recruit pre-working age chillel laborers. |
| Cultural heritage   | B                    | - There are World Heritages and lots of cultural heritage such as ruins in Vietnam. | - Considering alternative plans which respects direct impacts on the cultural heritages. |
| Infectious diseases such as HIV/AIDS etc. | B                    | - Some impact on diseases such as HIV/ AIDS among labors is expected during construction. | - Implementation of public health education for construction labors and local population around the construction sites. |

A: Significant Impact is expected  
B: Consideration impact may occur  
C: Significant impact is not expected at current stage

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JICA VINTRANSS2  
Env. & Social Consideration (0817)
9. Analysis of alternatives

The study is to formulate a transport strategy and master plans and the study policy is to consider alternatives which respect less environmental and social impacts. Therefore, the most optimum plan will be elaborated based on comparison of environmental and social aspect, economical efficiency, necessity and effectiveness.

10. Results of Discussions with Vietnam Government (methods on work sharing, alignment and coordination)

As mentioned in the item of 7-(2) above, relevant governmental entities of Vietnam are the Environmental Division at MOT, the Department of EIA and Appraisal at MONRE and the International Division at VEPA. Therefore, the preliminary study has explained contains and necessity of the JICA guidelines for environmental and social considerations (in English Version and Vietnam Version) to those Divisions and the Department as well as has requested those Vietnam side to coordinate the JICA guidelines with LEP (Law on Environment) and necessary procedures on environmental studies and to cooperate with the study team to be dispatched. In addition, according to the Environmental Division at MOT, it is necessary to get a Governmental approval for an ‘Investment Plan’ at the planning stage and as one of the conditions for the approval is to have an approval of a Strategic Environmental Assessment (SEA) report for the plan. The Environmental Division has shown a commitment of positive cooperation with the study accordingly.

11. Provisional Terms of Reference for Environmental and Social Considerations

Vietnam Government has stirred it interest in environmental and social impacts in accordance with increase in the number of development programs and projects of the country. The interest of the Government can be understood by the recent reform of the environmental administrative structure and system of Vietnam as mentioned below.

In the year of 2002, the Environmental Divisions of former Ministry of Science, Technology and Environment (MOSTE) and other related sectors of the Government Ministries and Agencies were reformed for organizing MONRE. In addition the reform, revision of LEP on July of 2006 has introduced the SEA system. Review of the environmental standards has been implemented as well.

According to those circumstances above, an expert on environment and social considerations shall conduct related surveys in the study. The following shows provisional terms of reference for environmental and social considerations surveys in the study of VINTRANSS 2.

(1) Phase 1

- Review surveys of Vietnam environmental related laws and regulations
- Surveys on the social and natural environmental situations at the national level

(2) Phase 2A

- Re-review surveys of environmental related laws and regulations at the national level as well as at the study areas of the middle term M/P considered at Phase 2A
- Surveys on the social and natural environmental situations at the study areas of the priority projects in the middle term M/P considered at Phase 2A
- Scoping for the priority projects in the middle term M/P considered at Phase 2A
- Making technical advices on the SEA to be studied by Vietnam side.
(3) Phase 2B

- Re-review surveys of environmental related laws and regulations at the national level as well as at the study areas of the pre-F/S study for the North-South expressway considered at Phase 2B
- Surveys on the social and natural environmental situations at the study areas of the pre-F/S study for the North-South expressway considered at Phase 2B
- Scoping for the pre-F/S study for the North-South expressway considered at Phase 2B
- Making technical advices on the SEA to be studied by Vietnam side
- Making technical advices on a possible EIA to be studied by Vietnam side in future

12. Reference

- Results of Provisional Screening with the JICA guidelines for environmental and social considerations
- Decree No.80
- Circular No.08