

2.9. Implementation Structure and Program

Implementation structure and program was updated during the discussion between JICA and MOT. Updated implementation structure and program is presented in Appendix-10.

The following are study results before the discussion between JICA and MOT took place.

2.9.1. Review of F/S

(1) Implementation Structure

In the F/S report, the implementation structure is described based on the scheme of BOT. VIDIFI is then introduced as the executing agency.

According to the instruction of Prime Minister in the letter No.8677/VPCP-KTN dated 22 December 2009, the project owner has been transferred from VIDIFI to MOT. In addition, MOT has assigned Project Management Unit No. 2 (PMU 2) under the notice no. 73/TB-BGTVT dated 03 March, 2010.

The updated implementation structure is introduced in the following sections:

(2) Implementation Program

In the F/S report, the following time schedule is assumed as a BOT project,

- Detailed Design and Preparation of Tender Documents : 12 months
- Procurement Process of Contractors : 6 months
- Construction : 36 months

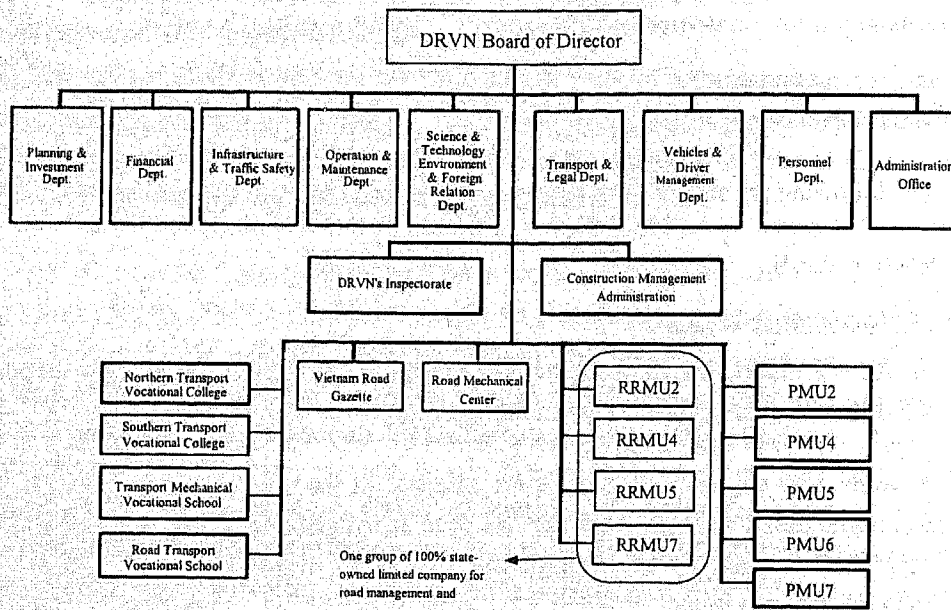
The schedule for Detailed Design and Preparation of Tender Documents will be conducted using Japanese Grant. The schedule for procurement process of contractors will also be conducted using Japanese Grant.

The construction period is also subjected for updates based on Section 2.6.2

2.9.2. Project Owner and Implementating Agency for Road and Bridge Portion

(1) Project Owner

It was confirmed that the Project Owner is Directorate of Roads for Viet Nam (DRVN).



Source: Prepared based on Prime Minister Decision No: 107/2009/QĐ-TTg, and Minutes of Discussions on Lach Huyen Port Infrastructure Construction Project between JICA and GOV on June 18, 2010.

Figure 2.9-1 Organization Chart of DRVN

(2) **Implementing Agency**

PMU 2, under DRVN, is responsible for all project works as shown below. Its organization chart is shown in Figure 2.9-2.

- Pre-construction works comprising engineering design, land acquisition, relocation/resettlement and tendering
- Construction supervision
- O&M civil works and equipment
- Traffic safety facilities
- Capacity building by Project Management System

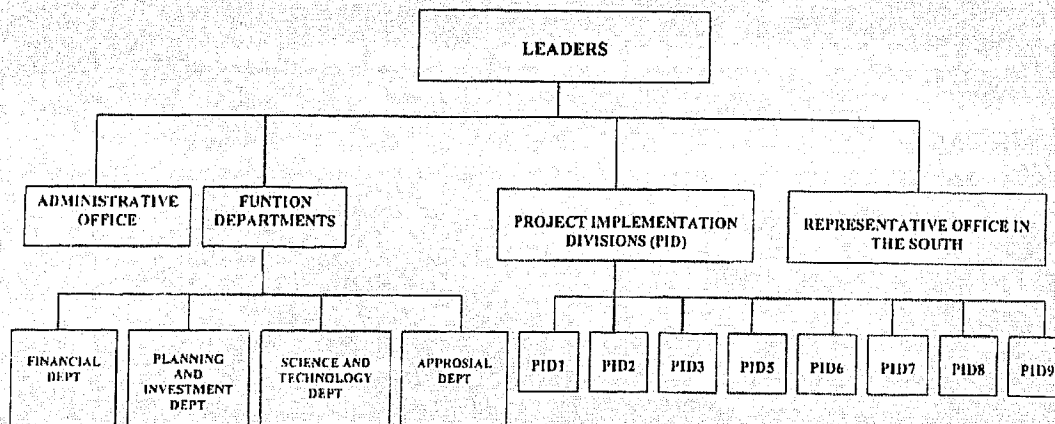


Figure 2.9-2 Organizational Chart of PMU2

Among the Project Implementation Divisions in PMU 2, PID5 is responsible for the project on the road and bridge portion of Lach Huyen Port Construction. It shall be in charge of the

following items as Executing Agency:

- Preparation of Investment,
- Detailed Design,
- Bidding, and
- Construction Supervision.

The relationships among PID5 and the related divisions in PMU2, and among responsible personnel of PID5 concerning above items related to implementation of the access bridge and road, are shown in Figures 2.9-3 and 2.9-4.

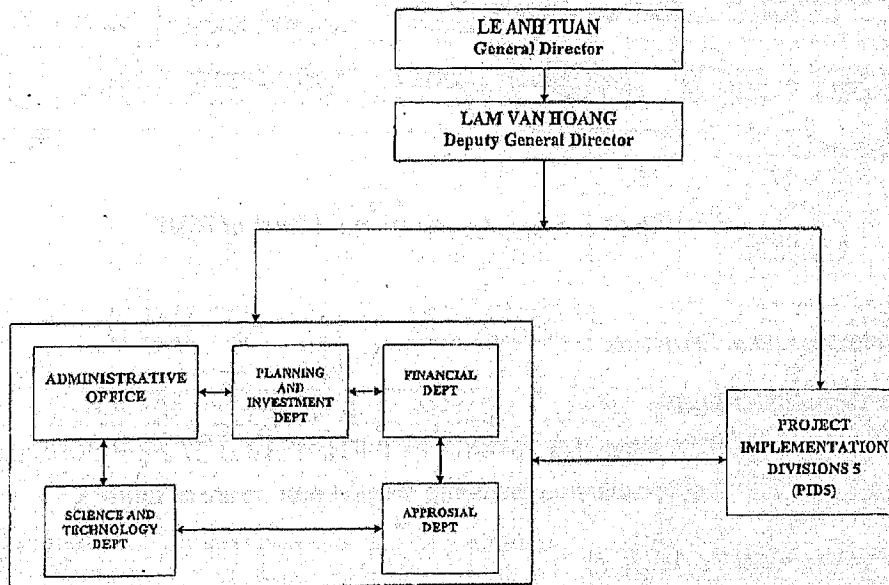


Figure 2.9-3 Relationships among PID5 and Related Divisions in PMU2

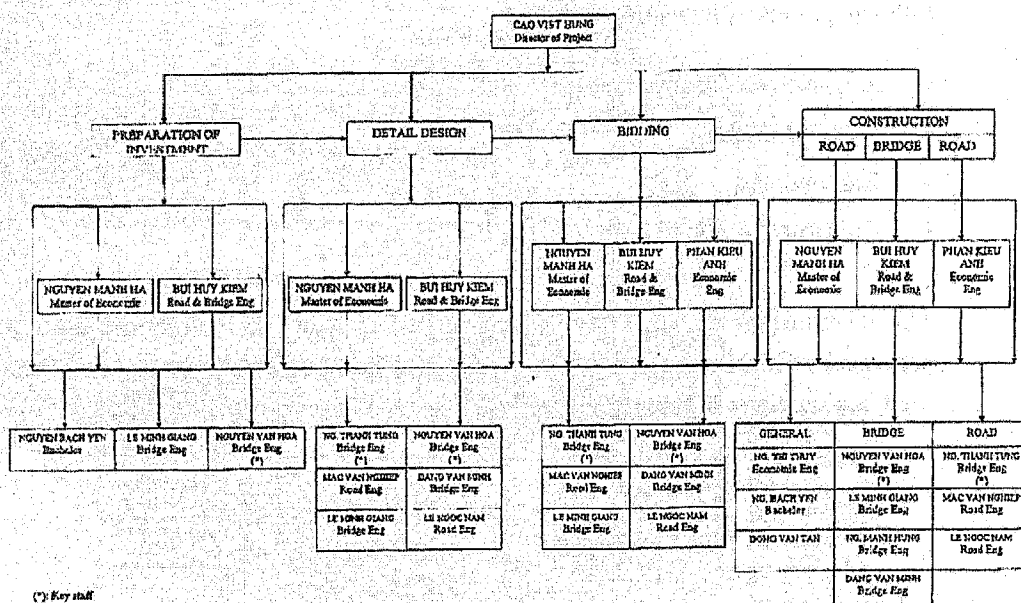


Figure 2.9-4 Organizational Chart of PID5

2.9.3. Implementation Structure

(1) Related Organizations

According to MOT's letter, No 2678/BGTVT-KHDT dated 27 April 2010, the organizations related to project implementation including the port portion are as follows,

- 1) Funding Agency: JICA
- 2) Borrower: Ministry of Finance (for both portions)
- 3) Line Agency: MOT (for both portions)
- 4) Project Owner
 - a) Road and Bridge Portion: DRVN
 - b) Port Portion:
 - i) Public Sector: Vietnam Maritime Administration, VINAMARINE
 - ii) Private Sector: VINALINES
- 5) Implementing Agency
 - a) Road and Bridge Portion: PMU 2
 - b) Port Portion: Maritime Project Management Unit No.2 (MPMU2)
- 5) Land Acquisition, Resettlement Action Plan and Land Clearance: Hai Phong People's Committee (for both portions)

As for the private sector in the port portion, the Special Purpose Company (SPC) will be established as a 100% daughter of the JV of VINALINES and private investors.

(2) **Joint Coordination Committee (JCC)**

A JCC has been organized in order to secure the smooth implementation and consistency between the two portions. The Vice Minister of MOT would chair the JCC while representatives of relevant stakeholders, such as VINAMARINE, DRVN, MPMU 2, PMU 2, VINALINES, MPI and MOF would serve as members of the JCC. They would hold JCC meetings periodically. JICA will also take part in the JCC meetings.

The implementation structure is shown in Figure 2.9-5.

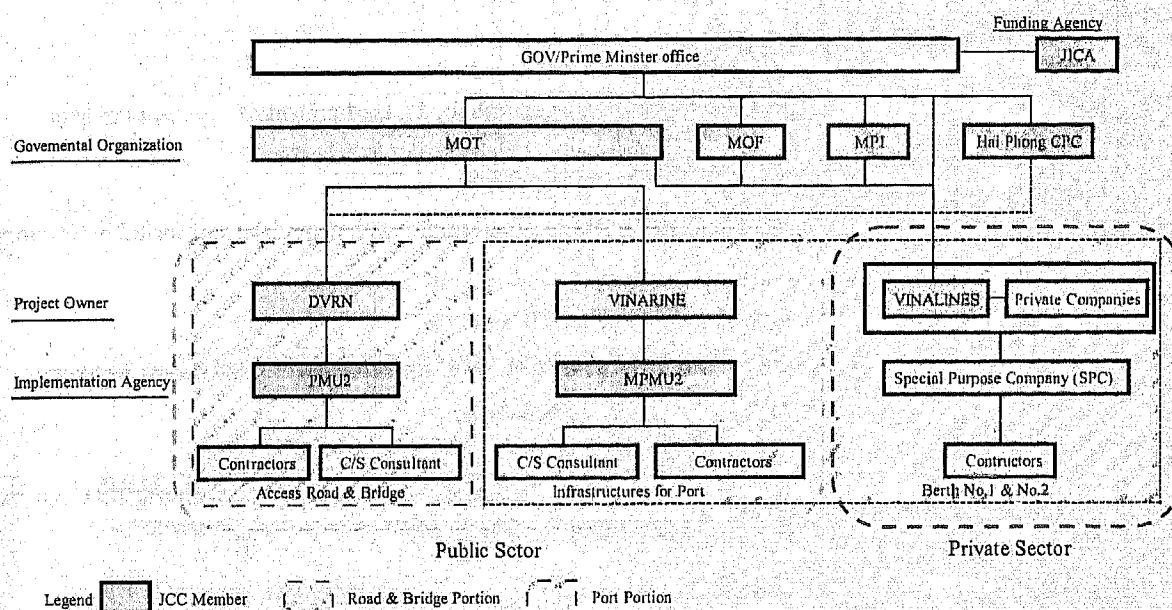


Figure 2.9-5 Organization Structure for Project Implementation

2.9.4. Implementation Program

(1) **Procurement of Construction Works**

The procurement of contractors should be in accordance with the guidelines for procurement under Japanese ODA Loans. Because the implementation of this project will be funded by the Japanese Government with an ODA Loan, STEP scheme based on the M/D on Lach Huyen Port Infrastructure Construction Project between JICA and GOVN dated March 19, 2010, prime contractors must be Japanese firms. JVs with the firms incorporated and registered in recipient countries are also allowed to be a prime contractor under the condition that a Japanese firm will be the lead partner. Subcontractors, on the other hand, may be from any country.

(2) **Procurement of Consulting Service**

Consulting services for the detailed design and tender assistance would be provided by JICA on the condition that STEP is applied for the project

1) **Detailed Design and Tender Assistance**

Based on M/D, technical assistance for the detailed design and tender assistance would be provided by JICA on the condition that STEP is applied. Procurement of a consultant for the

detailed design and tender assistance would be conducted under a Japanese grant soon after the timing of the pledge by Japanese Government to GOVN. This shall be in accordance with the Procurement Guidelines of the Japanese Grant Aid for General Projects, for Fisheries and for Cultural Cooperation (Type I-G).

2) Construction Supervision

Procurement of a consultant for construction supervision will be conducted in accordance with the Guidelines for the Employment of Consultants under Japanese ODA loans. In case that STEP is applied as mentioned in the M/D, the prime consultant must be a Japanese firm, or a Japanese-led JV with firms incorporated and registered in Vietnam.

(3) Implementation Program (I/P)

The implementation program in this Study is established based on following assumptions:

- STEP scheme of Japanese ODA Loan is applied,
- Consulting services for the detailed design and tender assistance are supported by Japanese grant,
- Loan agreement is signed in September 2010, and,
- Construction period is 30 months* **(The period is updated after discussion between JICA and MOT as presented in Appendix-10)**

The implementation program is as follows and shown in Table 2.9-1, assuming that common practice is applied.

Table 2.9-1 Implementation Milestones

Event/ Milestone	Time/ Period
Preparatory Study	: April 2010 to July 2010
JICA Follow-up Mission	: June 2010
Pledge by Japanese Government	: July 2010
Exchange Note & Loan Agreement	: September 2010
Procurement of D/D consultant	: July 2010 to August 2010
Detail Design	: September 2010 to May 2010
Procurement of T/A Consultant	: December 2010 to January 2011
Bidding Time	: February 2011 to April 2012
Procurement of C/S consultant	: October 2010 to June 2011
Land Acquisition	: January 2011 to December 2012
Resettlement	: January 2011 to December 2012
Construction	: June 2012 to December 2014
Defect Liability Period	: January 2015 to December 2016

This table is updated after discussion between JICA and MOT as presented in Appendix-10.

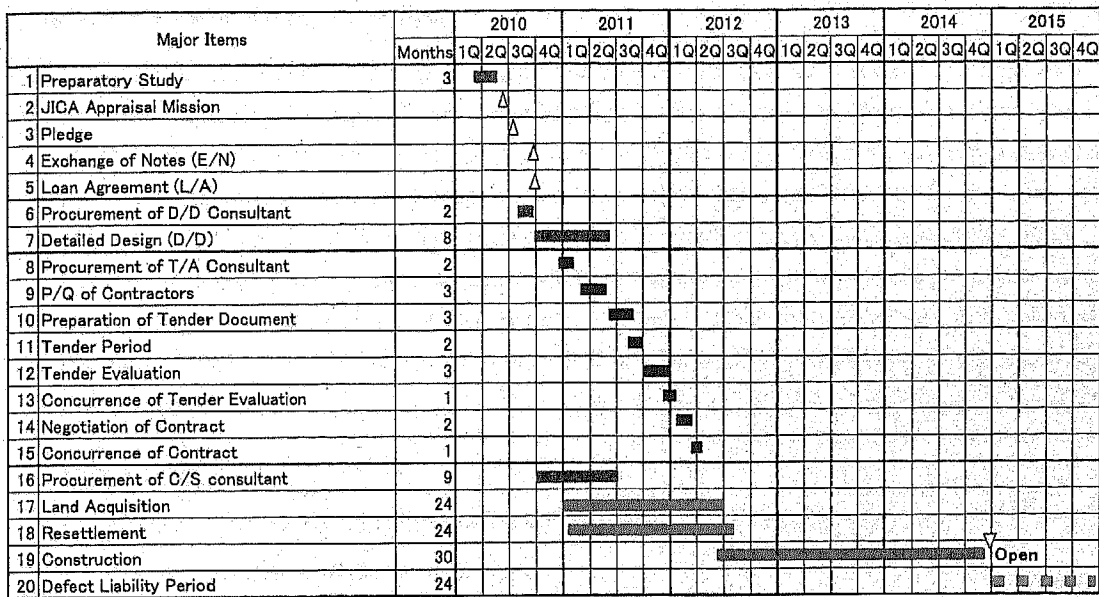


Figure 2.9-6 Proposed Implementation Program

This figure is updated after discussion between JICA and MOT as presented in Appendix-10.

(4) Risks on Delay of Implementation Schedule

Risks which may lead to delay in project implementation are itemized as follows:

- Delay in design works
- Delay in land acquisition
- Delay in procurement
- Delay in construction works.
- Delay in environmental mitigation actions.
- Delay in development of the Hanoi-Hai Phong Expressway.
- Delay in establishment of O&M organization.
- Delay in contractual arrangement between MOT and the private sector

The proposed measures for these risks on delay are summarized in the table below.

3.3. Intangible Effect from the Project

Road and bridge development will reduce the cost of production in most industries at a given level of output by making it faster and cheaper to obtain parts and raw materials, and to get finished products to market. Particularly, Tan Vu-Lach Huyen Highway directly links the new port with the Hanoi-Hai Phong Expressway and other major national road networks. It will enhance faster and smoother cargo transportation at much lower costs. Moreover, lower costs lead to lower prices and greater demand, which translate to a growth in output of the economy as a whole. There are many kinds of expected benefits other than VOC and TTC savings that are considered in economic evaluation of this study. They could be categorized as the following:

(1) **Direct Benefits**

- Avoiding disastrous maritime traffic congestion at Nam Trieu Channel
- Reducing possible damages to freight,
- Reducing transport cost and time of freight and passengers, and
- Reduction of traffic accidents, especially on nearby existing roads.

(2) **Indirect Benefits**

- Expanding the market sphere,
- Integrating the regional economy,
- Streamlining the distribution industry,
- Promoting and attracting entries for new industries, and
- Enhancing productivity.

It is important to foster these benefits and monitor them so as to maximize the benefit from the Project. Thus, RRMU should obtain the data for indicators of operation and effect during operation. Proposed indicators of operation and effect are summarized in Table 3.3.1

Table 3.3-1 Proposed Operation and Effect Indicators for Tan Vu-Lach Huyen Highway Project

Indicators	Index	Methodology	Target	Purpose	Remarks
Operation Indicators	Annual Average Daily Traffic (AADT)	<ul style="list-style-type: none"> - Traffic counting at fixed points along the Tan Vu - Lach Huyen port. - 24hrs traffic volume shall be counted on the same day of the year. - Traffic by vehicle type and time band shall be recorded. 	Need discussion with RRMU about vehicle type, survey dates and frequency.	<ul style="list-style-type: none"> To analyze patterns and tendency of traffic conditions on and around the Tan Vu-Lach Huyen port. To monitor cargo volumes transported from and to the Lach Huyen port. 	<ul style="list-style-type: none"> To prepare database for traffic O&M. To prepare time series database for scientific traffic analysis.
	Vehicle Speed	<ul style="list-style-type: none"> - Travel speed survey at fixed sections of the routes including Tan Vu - Lach Huyen port. - Survey shall be carried out in morning and evening peak hours and off-peak hours. - Survey shall be carried out on the same day of the year. 	Design speed at 50km/hr could be the target for the section of Tan Vu - Lach Huyen port section. Need discussion with RRMU about survey dates and frequency.	<ul style="list-style-type: none"> To analyze actual travel and transport times. To analyze annual service level provided by the Tan Vu-Lach Huyen port. 	<ul style="list-style-type: none"> To prepare database for traffic O&M. To prepare time series database for scientific traffic analysis.
Effect Indicators	Traffic Accident on and nearby existing roads	<ul style="list-style-type: none"> - Number of traffic accidents shall be counted and recorded along the Tan Vu - Lach Huyen port - Causes and degrees (fatal or injury) of accidents shall be remarked. 	Need discussion with RRMU about and recording forms of the accidents.	To monitor frequencies of accident occurrences.	To prepare database for traffic O&M.
	Land Price at nearby areas of the Tan Vu-Cat Hai roads and bridge	- Land prices at nearby the Tan Vu-Lach Huyen port section shall be surveyed on the same day of the year.	Areas and categories of land use pattern shall be discussed with RRMU and local administrations concerned.	To monitor the induced land development by the project	To promote industrial / commercial development. To prevent unplanned land development
	Number of industrial and business / commercial facilities	- Number of facilities in Hai An side and Cat Hai island shall be surveyed on the same day of the year.	Areas and categories of land use pattern shall be discussed with RRMU and local administrations concerned.	To monitor and promote industrial / commercial development induced by the project	Number of employees and vehicles held by each enterprise shall be remarked.

Source: Study Team

(3) **Proposed Impact Indicators**

Based on the above concept, the Study proposes to set the following impact indicators according to the results of survey.

Table 3.3-2 Proposed Impact Indicators, Baseline and Target for the Project

Indicator	Baseline Value in 2010	Target Value in 2017	Remarks
Travel Time	➤ 155 minutes including ferry transportation	<ul style="list-style-type: none"> ➤ 19 minutes at average speed at 50km / hr. ➤ 12 minutes at average speed at 80km /hr. 	Section applied to Tan Vu IC area ~ Ben Got
Annual Average Daily Traffic (PCU/day)*	➤ 557 PCU/day (Dinh Vu~Ferry~Ninh Tiep ~Ben Got Section)	<ul style="list-style-type: none"> ➤ 15,607 PCU/day (Tan Vu IC ~ Dinh Vu Section) ➤ 9,790 PCU/day (Dinh Vu ~ Ben Got Section) 	Each PCU includes more than 4-wheel vehicles, not including bicycle and motorcycle.

*Note: Annual Average Daily Traffic is adapted from Appendix 2-2:

Baseline Value in 2010: 8. Daily Traffic Volume Based on Traffic Survey (Page Appendix 2-31: Dinh Vu ~ Cat Hai Ferry ~ Ninh Tiep Ferry Section = 22+237+22 =281 PCU/day, Cat Hai Road Section = 29+221+26 = 276 PCU/day, Total: 557 PCU/day)

Target Value in 2017: 6. Revised FS Daily Traffic Volume, PCU Daily Traffic Volume Tan Vu - Dinh Vu (Page Appendix 2-29), and 7. Revised FS Daily Traffic Volume, PCU Daily Traffic Volume Dinh Vu - Cat Hai (Page Appendix 2-30)

Source: Study Team

3.4. Environmental and Social Considerations

3.4.1. Review and Confirmation of EIA

(1) Review of EIA report

A draft of EIA report had been prepared by Vietnam Infrastructure Development and Finance Investment Joint Stock Company (VIDIFI) in July 2009. Hyder Consulting Ltd was the body in charge of preparation of this EIA report. The EIA report was then submitted to Hai Phong People's Committee (HPPC) for approval. However, while it was on the way to be approved by HPPC, Prime Minister decided to transfer the project ownership from VIDIFI to MOT. Therefore, PMU2, as an implementing agency of MOT in charge of this project, was appointed to be the body in charge of revising the EIA report, and submitting it to MOT for approval.

On April 20, 2010, the Preparatory Survey Team had received a copy of the EIA report (in Vietnamese) revised by PMU2. At the time being, the Preparatory Survey Team had found several deficiencies in the report as followings.

- a) Data on wind direction and wind speed are not sufficient to identify in which direction the wind has highest speed, and in which direction it has the lowest speed. Such data are necessary to predict concentrations of pollutants in ambient air in the future.
- b) Surveys on air quality and water quality were conducted only one time during rainy season in August 2008. In order to be able to assess current state of natural environment properly, it needs to carry out such surveys during the dry season (around January ~February) in addition to the surveys in rainy season.
- c) Survey on air quality (and noise) was conducted at 4 sites in 2008. However, survey on air quality (and noise) at the site near the Dinh Vu Industrial Zone had not been conducted, while many factories here are considered as potential sources of air pollutants (and noise). Therefore, (in the D/D stage) number of sites for survey on air quality (and noise) should be increased.
- d) Survey on quality of surface water had been conducted at 8 sites in 2008. This number of survey sites is considered not sufficient, when comparing to the extension (about 16km) of the planned road. In order to have appropriate baseline data for a proper environmental management plan, it suggests that (in the D/D stage) number of sites for survey on surface water quality should be increased. In addition, survey on surface water quality should be conducted at least one time in the dry season and one time in the rainy season.
- e) In the survey on surface water quality in August 2008, only parameters of pH, turbidity, DO, SS, and BOD5 were analyzed and assessed. However, in order to avoid/mitigate impacts to aquaculture and salt produce which are local residents' main sources of income, it also needs to carry out analysis and assessment on several metallic concentrations (arsen, cadmium, lead, etc.) in surface water those may affect the local aquaculture and salt produce.
- f) The socio-economic conditions of the project-affected communes, and local residents' living conditions, religious activities, neighborhood, etc. were not described appropriately. The roles of the Dinh Vu Ferry, schools, hospitals, etc. in the local society were not discussed in the report.

- g) Methods to predict impacts on air quality, noise, vibration, etc. were not appropriate. Therefore, it can be said that impacts on air quality, noise, vibration, etc. had not been assessed in a reasonable manner.
- h) Impacts to aquaculture, salt produce, and other means of livelihood of local residents were not assessed appropriately. Impacts that may cause by a large number of construction laborers came from outside during the construction phase were also not assessed properly. Main issues described in the RAP report were not appropriately referred to.
- i) In the report, it lacks a section to describe about the measures to mitigate impacts in the pre-construction phase (such as impacts of land acquisition, resettlement, relocation of tombs, loss of source of income, impacts caused by the termination of ferry operation, etc.)
- j) Role of an independent organization to be in charge of environmental monitoring during the construction phase was not identified clearly.

(2) **Item of the EIA report to be improved**

Table 3.3.1 describes items of the EIA report that should be improved.

Table 3.4-1 Items to be Improved by Brief Review of Revised EIA Report

No.	Item	Action			
		PMU2	Preparatory Survey	D/D	C/S
Environmental Consideration					
a	Data on wind direction and speed	○			
b&c	Survey on air quality			○	
d&e	Survey on surface water quality			○	
g	Prediction of impacts on air quality and noise by proper methods		○		
Social Consideration					
f	Descriptions on socio-economic conditions of project-affected communes	○			
h	Assessment of impacts on social environment	○			
i	Mitigation measures for impacts on social environment	○	○	○	
j	Environmental Management Plan and Environmental Monitoring Plan	○	○	○	

(3) **Public Consultation**

A public consultation meeting was organized on 28 April 2010 at Civilization Center of Cat Hai City. Approximately 80 local residents and representatives of local authorities of Cat Hai District, Cat Hai Townlet, Nghia Lo Commune, and Dong Bai Commune have participated the meeting. Record of the meeting is attached as an appendix in the EIA Report.

A number of comments and requests had been raised by participants at the meeting, such as the followings.

a) Residents' comments on environmental impacts

- Measures to mitigate impacts of exhaust gas, dust, and other air pollutants should be carefully examined, due to the fact that aquaculture and salt production which are main sources of income of local residents would be affected significantly.
- Polluted water from construction activities and waste water from worker camps should be discharged somewhere outside of the Cat Hai Island, to avoid polluting surface water bodies of the island.
- In the operation phase, noise generated by moving vehicles with high speed would be significant and should be mitigated by appropriate measures.
- Sites to dispose waste soils, construction wastes, etc. should be appropriately examined.

b) Residents' comments on socio-economic impacts

- A significant number of workers would come and cause disturbance of local community's security.
- Land prices (including residential land, aquaculture land, salt production land, etc.) stipulated by Hai Phong City PC are too low compared to market price.
- Resettlement at site (near existing residence, fish ponds, salt pan, and ancestor's tombs) would be considered as first priority mode of resettlement for residents who would lose their residential land. It will be very hard for them to maintain the existing production, spiritual activities, neighborhood, etc. if they have to resettle far away from their existing residence.
- It is anticipated that about 120 graves would be removed to make land for the project. However, the project proponent should soon be discussed with local residents to work out a plan to construct a new cemetery or expand the existing cemetery. Relocation of graves should be carried out prior to the relocation of people, since relocation of ancestors' graves is considered very important for local residents.
- Aged people are depending on lands for aquaculture and salt production for their livelihood. So, it will be very difficult for them to seek other means of livelihood if they lose these existing lands.
- As may be seen in other development projects, the livelihood restoration programs were not duly implemented as promised by the project owners. Young people might be supported to get new job in companies, factories, etc. after obtained vocational trainings. But they were soon fired or found themselves difficult to maintain their job for a long time. Therefore, competent authorities should carefully examine proper measures to deal with this problem.

(4) **Revision and approval of EIA report**

On April 29, 2010, the Survey Team had discussed with PMU2 about the result of the EIA review. Based on the Survey Team's comments, local residents' opinions raised in the public consultation meeting held on April 28, 2010, and comments from MOT's environmental experts,