

# **ASSET SURVEY FOR SMALL SCALE PRO-POOR INFRASTRUCTURE IN VIETNAM**

## **ROAD SECTOR REPORT**

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## PREFACE

In response to request from the Government of the Socialist Republic of Viet Nam, the Government of Japan had extended Sector Project Loan (SPL) for “The Rural Infrastructure Development and Living Standard Improvement Projects (SPL I to III)” from 1996 and “Small-Scale Pro-Poor Infrastructure Development Projects (SPL IV & V)” from 2003. Japan International Cooperation Agency (JICA) conducted the survey to analyze the shortcomings in the planning of the infrastructure development projects and their operation, maintenance and management, and to develop the necessary information for the Japanese review of the SPL Projects.

JICA dispatched a survey team, headed by Mr. TSUCHIYA Toshihiro of NTC International Co., Ltd. and consisting of NTC International Co., Ltd. and Katahira Engineering International and Tokyo Electric Power Services Co., Ltd. to the Socialist Republic of Viet Nam between April 2010 and October 2010.

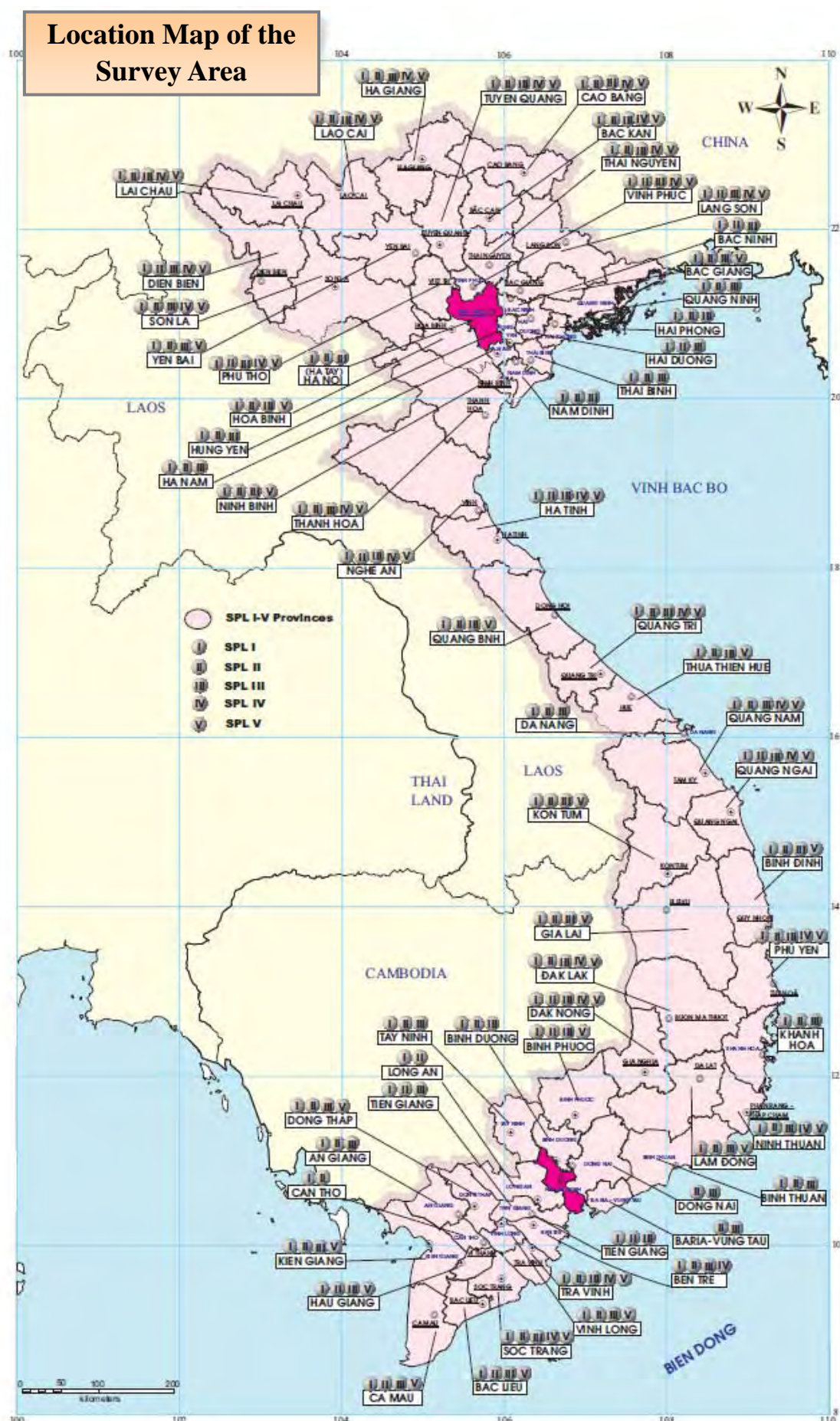
The team held discussions with officials concerned of the Government of the Socialist Republic of Viet Nam, and conducted the site surveys in the survey area. Upon returning to Japan, the team conducted further studies and prepared this final report.

I hope that this report will contribute to the future development of the said Projects, and to the expansion of friendly and cooperative relation between our two countries.

Finally, I wish to express my sincere appreciation to the officials of Government and those concerned in the Socialist Republic of Viet Nam for the close cooperation they have extended to the survey.

January, 2011

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Director General  
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## **Abbreviation**

AC	Asphalt Concrete
BMS	Bridge Management System
BPM	Bituminous Penetration Macadam
City PC	City People's Committee
CL	Commodity Loan
CPC	Commune People's Committee
DARD	Department of Agriculture and Regional Development
D/D	Detailed Design
DOT	Department of Transportation
DPC	District People's Committee
DPI	Department of Planning and Investment
F/S	Feasibility Study
GOJ	Government of Japan
GOV	Government of Vietnam
IMC	Irrigation Management Company
ITD	Industry and Trade Department
JBIC	Japan Bank for International Cooperation
JICA	Japan International Cooperation Agency
L/A	Loan Agreement
MB	Management Board
MIS	Management Information System
MOF	Ministry of Finance
MOT	Ministry of Transport
MPI	Ministry of Planning and Investment
O&M	Operation and Maintenance
OM/M	Operation Maintenance and Management
PCU	Passenger Car Unit
PMT	Project Monitoring Tool
PMU	SPLs Project Management Unit
PO	Project Owner
PPC	Provincial People's Committee
PPMU	Provincial Project Management Unit
RC	Reinforced Concrete
ROW	Right of Way
SAPROF	Special Assistance for Project Formation
SPL	Sector Project Loan
SPMU	Sub-Project Management Unit
TPC	Town People's Committee
VND	Vietnamese Dong

# **Asset Survey for Small Scale Pro-Poor Infrastructure in Vietnam**

## **Road Sector Report**

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## **Chapter 1 Background of the Survey**

### **1.1 The SPL Projects Executed**

After the introduction of the Doi Moi (Reform) policy in 1986, the Government of Vietnam (GOV) had challenged to shift its planned economy to the market economy and achieved remarkable economic growth, which is marked by the average annual growth rate of 8.9% from 1992 to 1996. This economic growth brought the dramatic reduction of the poverty rate in Vietnam (The current poverty lines set in the rural area and the urban area are VND 200,000/month and VND 260,000/month respectively.) from 58% in 1993 to 24% in 2004. However, the economic disparity between the rural area and the urban area is growing, and in the rural area where 90% of the poor live, the poverty rate was 25% in 2004 which was far higher than the 3.6% poverty rate of urban area.

Under these circumstances, the Government of Japan (GOJ) extended loans for the sectors with urgency such as rural road and water supply as “Rehabilitation Loan I & II” (CL I & II). In addition to these sectors, electricity distribution, irrigation and afforestation were added in “The Rural Infrastructure Development and Living Standard Improvement Projects – Sector Project Loan (SPL) I to III”. Furthermore, from 2003, the loan was extended to focus on the poor areas of road, electricity distribution, water supply and irrigation sectors as “Small-Scale Pro-Poor Infrastructure Development Projects - SPL IV & V”. SPL I to IV have already been completed and SPL V project is on-going. Besides, the loan agreement of the SPL VI was signed in November 2009. The total loan amounts of SPL I to V is 48,350 million Yen, and a little less than 1,200 projects were implemented in all the administrative districts except Ho Chi Minh municipality.

However, the assessment of the situations of those constructed facilities is considered to be insufficient due to a great number of sub-projects, which spreads throughout the country, of SPL I – V Project. For example, the facilities constructed in the SPL I were already utilized for over 10 years, which indicates that the age of facilities will exceed their projected service life, which is 15 years in most of water supply sub-projects, in the near future. Moreover, some facilities seem to be not used as planned because of the modification of laws, damages caused by natural disasters, etc.

Under these circumstances, this Survey aims at grasping the actual situations of all the sub-projects executed in SPL I to V.

### **1.2 Outline of SPL Projects**

In 1994, based on the request of the GOV, the GOJ decided to extend the rehabilitation loans (CL I&II) for the purpose of improving international trade unbalance caused by chronic war and subsequent economic recession. The loan covered for the procurement of imported materials (fuel, asphalt, pumps and pipes etc.) for water supply and road construction sub-projects. In order to continue the assistance for the economic growth of Vietnam, it was indispensable to reduce the disparities between the urban and rural areas and to develop the rural areas where the majority of

population lives. For this purpose, the Rural Infrastructure Development and Living Standard Improvement Projects (SPL I, II and III) were carried out from 1996. In these SPL Projects, the loans covered cost including the insufficient construction cost which was one of the major problems in the execution of sub-projects under the rehabilitation loan. In addition to this, electricity distribution sector was added in SPL II (1997) and the irrigation sector was started in SPL III (1999).

From 2003, in coordination with Vietnamese policy on the poverty reduction strategy, the loan was extended as “Small-Scale Pro-Poor Infrastructure Development Projects - SPL IV & V”. In these SPL Projects, the target areas were focused on the less-developed areas (northern mountainous area, central highland area, etc.) where a number of ethnic minority groups live, and covered road, water supply, electricity distribution and irrigation sectors. Besides, the loan agreement (L/A) of the SPL VI was signed in November 2009 for the Phase-3 Small-Scale Pro-Poor Infrastructure Development Projects which covers mainly the northwest mountainous area and the central highland area, where the poverty rate is high.

Total amount of SPL I-V loans are summarized in the Table 1.2-1.

**Table 1.2-1 Loan Amount SPLI-V Unit: Million yen**

SPL I	(March 1996, L/A was signed)	: 7,000
SPL II	(February 1997, L/A was signed)	: 4,000
SPL III	(March 1999, L/A was signed)	: 12,000
SPL IV	(March 2003, L/A was signed)	: 10,562
SPL V	(March 2006, L/A was signed)	: 14,788
Total		48,350

Around 1,200 sub-projects have been implemented under the SPLs as shown in Table 1.2-2.

**Table 1.2-2 Number of Sub-Projects by each Sector under SPLs**

Sector	Road	Electricity distribution	Water Supply	Irrigation	Afforestation	Total
No. of Sub-projects	518	526	97	84	5	1,230
No. of Target Provinces	62	60	44	36	5	

### 1.3 The SPL Projects Area

The sub-projects spread through the whole country of Vietnam except Ho Chi Minh municipality, i.e. in 62 provinces. The number of sub-projects of each sector sorted by the region is summarized in the Table 1.3-1 below. Regarding the region, refer to the Appendix 1.1. The list of the sub-projects and their distribution by province are shown in Appendix 1.2 and 1.3.

**Table 1.3-1 Number of Sub-Projects by Region**

Region \ Sector	Road	Electricity Distribution	Water Supply	Irrigation	Total
North East	118	115	19	20	272
North West	35	26	8	4	73
Red River Delta	114	83	8	2	207
North Central Coast	79	82	27	23	211
South Central Coast	39	55	9	13	116
Central Highland	36	42	9	14	101
South East	32	45	2	3	82
Mekong Delta	65	78	14	6	163
Total	518	526	96	85	1225

Note: Five afforestation sub-projects are not included

## 1.4 Vietnamese Implementing Organization

The implementing organizations of SPLs are Ministry of Planning and Investment (MPI), Ministry of Finance (MOF), Commercial Bank for Foreign Trade of Vietnam (Vietcombank), Provincial People's Committee (PPC) and Project Management Units at central level (PMU) and provincial level (PPMU). Project Owner (PO) decided in the investment decision also establishes the Sub-project Management Unit (SPMU). Followings are the duties of each organization.

### (1) Ministry of Planning and Investment (MPI)

- To ensure program investment decisions in accordance with the law and the development plan, and to meet the objectives of the program.
- To coordinate with JICA to review and select the sub-project base on proposal of the PPC.
- Informing PPC for implementation of the list of sub-projects and allocated JICA fund for each sub-project.
- To approve selecting consultants for the program in accordance with current procurement legislation.
- To inspect and supervise the implementation of the SPL Project.
- To ensure the necessary resources for monitoring activities, the management and supervision of the SPL Project.
- To develop and implement the measures prescribed by law for the prevention and fighting against corruption and improper use of the fund which affect the SPL Project's objectives.
- To be responsible on the authority in accordance with current laws on violations of regulations in the process of supervising the implementation of the SPL Project.
- To be responsible on the process of implementing the SPL Project, for causing the delay, leakage and waste and corruption in accordance with current legislation.
- To coordinate with JICA to consider and decide the utilization of the remaining fund.

**(2) Ministry of Finance (MOF)**

- To make payment for sub-projects.
- To make out balance sheet for the Provincial Finance Department in time.
- To conduct withdrawal from the loan account to special account.
- To repay the principal and interest as stipulated in the L/A.
- To coordinate with the PMU and the JICA in monitoring and evaluation of the SPL Projects.

**(3) Commercial Bank for Foreign Trade of Vietnam (Vietcombank)**

- To make a disbursement in accordance with the methods stipulated in the L/A at the request of the MOF and to notify to the relevant authorities as stipulated in the Circular on mechanism for debt management of the SPL.
- To monitor and report to the MOF and PMU the special account balance after each disbursement and withdrawal to special account.

**(4) Provincial People's Committee (PPC)**

- To ensure the sub-project investment meeting, discussing about the objectives, plans and relevant laws.
- To ensure sufficient counterpart fund for sub-project implementation as the schedule stipulated in the L/A.
- To approve the contractors selection process for the sub-projects in accordance with current legislation on the procurement.
- To inspect and supervise the implementation of the sub-projects.
- To develop and implement the measures prescribed by the law for the prevention and fighting against corruption, delay in implementation, etc. which affect the objectives of the sub-project.
- To be responsible on the authority in accordance with current laws on violations of regulations in the process of monitoring on the implementation of the sub-project.
- To be responsible in accordance with the current legislation on the implementation of the sub-project.
- To be responsible to report and explain to the MPI and the JICA on the change of sub-project (if any) in every September.

**(5) Project Management Units**

**1) SPLs Project Management Unit (PMU)**

MPI issues the decision on the establishment of the PMU. The tasks of PMU are as follows:

- Scheduling the implementation plan for the sub-projects

- Procurement and contract management
- Finance, properties management and disbursement for the sub-projects
- Administration, coordination and accountabilities
- Monitoring, evaluation and report of implementation of the sub-projects.

## **2) Provincial Project Management Unit (PPMU)**

PPMU is under the Provincial Department of Planning and Investment (DPI) in each province and it was established by decision of the competent authorities of the province. The tasks of PPMU are as follows:

- Acting as the focal point in planning, managing and reporting on implementation of sub-projects carried out in the province.
- Making the plan to arrange counterpart fund for sub-projects in the province and operation expenditure for PPMU, and submit it to the PPC for approval.
- To monitor the bidding activities and contract management.
- To carry out the tasks of managing financial assets and disbursements:
- To carry out the administrative tasks, coordination with parties concerned and making sub-projects accountable.
- To carry out the tasks of monitoring, evaluation and reporting of the sub-projects.

## **3) Sub-Project Management Unit (SPMU)**

Sub- Project Management Unit is to be established by PO. Followings are the tasks of the SPMU:

- Scheduling the project implementation.
- To carry out the tasks for bidding and contract management.
- To carry out the tasks of managing financial assets and disbursements.
- To carry out the administrative tasks, coordination with parties concerned and reporting.
- To carry out the duties on the acceptance, transfer and final financial settlement of the sub-projects.

## **(6) Operation, Maintenance and Management Organization (OM/M organization)**

The PPMU and SPMU transfer the facilities constructed under the SPL to the operation, maintenance and management (OM/M) organization in line with the related laws and decrees of Vietnam. After the transfer, the PPC takes charge of the operation, maintenance and management of the facilities.

Following Table 1.4-1 presents the examples of OM/M organizations shown in a number of provinces.

**Table 1.4-1 Operation, Maintenance and Management Organizations**

Sector	Organization
Road	<p>Management Unit for Transportation, DOT, Board for OM/M which invites contractor for maintenance, Road management company</p> <p>Provincial Road: PMU for Transportation, DOT or its contracted maintenance company, Joint Stock Company for OM/M, Company for transportation, construction and management belongs to DOT</p> <p>District Road: DPC, MB under DPC, District Department of Industry and Trade (or Department of Commerce), SPMU, Center for exploitation and management of public works</p> <p>Communal Road: Management Organization like Cooperative under CPC</p>
Electricity Distribution	<p>EVN, Affiliate or Subsidiary of EVN, Provincial Electricity Company under EVN, MB under PPC, Provincial Water Supply and Electricity Company, Provincial Electricity Company under Provincial Department of Industry and Trade, DPC, Management Organization like Cooperative, CPC</p>
Water Supply	<p>Branch of Provincial Water Supply Company, OM/M organization under DPC or Town PC, Independent Autonomous OM/M organization established in City, Town, etc., PCERWAS (Provincial Center for Rural Water Supply and Sanitation), Commune People's Committee, Provincial Water Supply Company</p> <p>Branch of Provincial Water Supply Undertaking such as Provincial Irrigation Service and Construction Ltd. Co. under PPC</p>
Irrigation	DARD, DPC, CPC, IMC, FO (Farmers Organization)

It should be noted that most of the provincial companies, which were controlled by line department of PPC, has become the “Limited Company” or “Joint Stock Company” under the direct control of PPC on the first of July, 2010 based on the Decree on Conversion of Enterprises with 100% State Owned Capital into Shareholding Companies, No. 109-2007-ND-CP.



## **Chapter 2 Purpose of the Survey**

### **2.1 Outline of the Survey**

The Survey covers four sectors of the road, the electricity distribution, the water supply and the irrigation and consists of the questionnaire survey and the sub-project sites visiting by the Team members to 1,115 infrastructures constructed under the sector project loans (SPL) in order to grasp the current operation, maintenance and management (OM/M) situation of them.

Though the SPLs contain the afforestation sector, because of small number of sub-projects implemented, the Survey intends to cover all the constructed facilities of road, electricity distribution, water supply and irrigation sectors.

The replies to the questionnaire provided the database, which format was elaborated by the Survey Team, with the data and information on the facilities and their OM/M situations. The database will hopefully contribute the efficient and cost effective operation, maintenance and management of the facilities.

The Team members could locate the facilities and such information reflected to prepare the SPL Infrastructure Map (location map of the facilities).

The members of Survey Team prepared the final report, which includes the recommendations on the problematic conditions and points to be improved of the OM/M of the facilities, after the completion of the site visiting.

### **2.2 Purpose of the Survey**

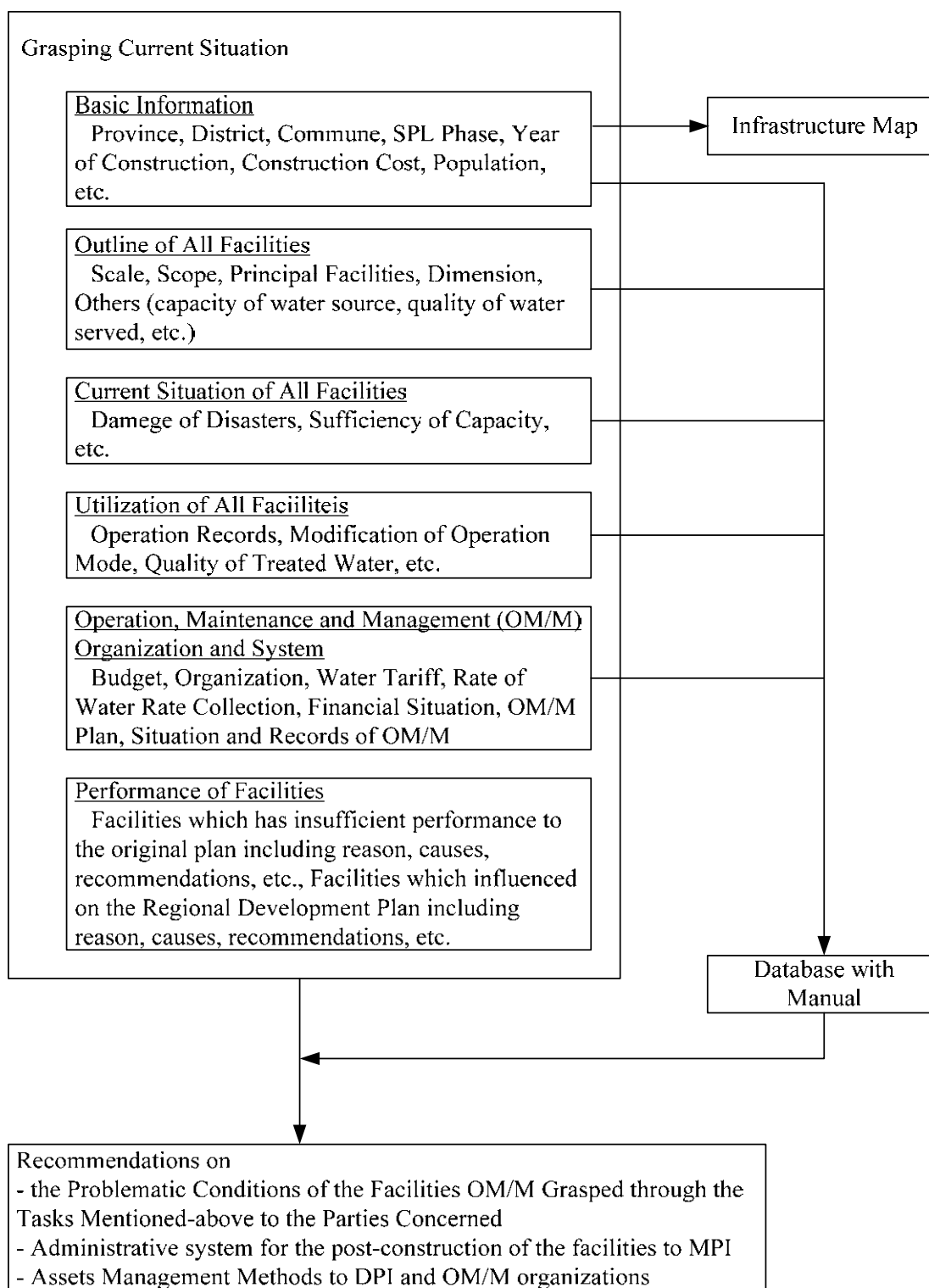
In accordance with the decentralization policy of the GOV, the implementation of the survey, design, construction, OM/M of the sub-projects under the SPLs are performed by the initiatives of the Vietnamese local government authorities. However, considering the possibility that the constructed facilities are not always utilized as per the initial plans, the purpose of this Survey is to analyze the shortcomings in the planning of the infrastructure development projects. In addition, considering the possibility that OM/M of the facilities are not conducted properly after the transfer, the purpose of this Survey is to develop the necessary information for the Japanese review of the SPL Projects.

For this purpose, the following tasks were carried out;

- Comprehension of the current situation of each sub-project under SPL I to V.
- Comprehension of the OM/M organization of the constructed facilities of the sub-projects and its functions.
- Constructing the database of collected information, data, etc. through the activities mentioned above. This database has the functions such as the facilities register and records of OM/M, etc. Further, database instruction manual were prepared.

- Mapping out the location of the infrastructures (the SPL infrastructure map).
- To recommend the effective and efficient utilization measures for the parties concerned based on the outcome of the above tasks. In particular, recommendations will be made on the administrative system of the sub-projects after the transfer of facilities to the OM/M organization for the Ministry of Planning and Investment (MPI) and on the infrastructure asset management for the Department of Planning and Investment of Provinces (DPI).

The activities of this Survey are summarized in following Figure 2.2-1.



**Figure 2.2-1 Main Tasks of the Survey**

## **Chapter 3 Implementation of the Survey**

As mentioned earlier, the Survey was implemented in the four sectors which mainly consist of the questionnaire survey and the site visiting by the engineers for visual confirmation on the current situation of the facilities constructed under SPL I to V.

The Survey Team had the meeting with Ministry of Planning and Investment (MPI) for the explanation of the inception report and the request to cooperate in the survey immediately after the arrival in Ha Noi followed by the survey planning, entrusting the site survey of the road and electricity distribution sectors on Vietnamese consulting firms and the delivery of the questionnaires.

After the delivery of the questionnaire at the end of April, 2010, the Survey Team started the site survey including the meeting with Provincial Department of Planning and Investment (DPI) and other parties concerned at the beginning of May, 2010.

The road sector firstly completed the site survey at the end of July and the water supply sector finally finished the survey at the beginning of September.

Regarding the questionnaire survey, the Survey Team unfortunately could not receive the replies to the questionnaires sufficiently though the Team had been waiting by the middle of September.

Apart from the Survey activities of four sectors, the member in charge of database management had started to prepare the database formats for the four sectors after the exchange of idea with MPI on the database as one of the outputs of the Survey. The data input was made from July to the end of September.

In the course of the data input, the Survey Team held the workshop on the database targeting the persons related to the SPL Projects with the cooperation of MPI in order to disseminate not only the database itself but also the rough concept of Assets Management making use of the database. The opinions collected at the workshop were reflected on the database format.

### **3.1 Setting up the Items to be Surveyed**

The items to be surveyed consist of following five (5) categories:

- General Information
- Facilities
- Current Situation of Facilities
- Effectiveness of Sub-project
- Operation, Maintenance and Management (OM/M)

Details of items to be surveyed in remaining categories are summarized in the followings:

Road sector surveyed based on the following items with objectives.

**Table 3.1-1 Survey Items and Objectives of Road Sector**

Subject	Items to be Surveyed	Objectives of Survey through the Survey Item
Facilities	<ul style="list-style-type: none"> <li>• Class of Roads</li> <li>• Width and Length of Roads</li> <li>• Construction Area</li> <li>• Newly Construction or Rehabilitation</li> <li>• Components of Facilities</li> <li>• Project Owner</li> </ul>	<ul style="list-style-type: none"> <li>• Inquiries in this category mainly aim at grasping the specification of target roads, year of completion of construction, scale, construction cost</li> </ul>
Current Situation of Facilities	<ul style="list-style-type: none"> <li>• Damaged Level</li> <li>• Bottleneck</li> <li>• Main Type of Car passing the Road</li> <li>• Public Transportation</li> <li>• The Number of Traffic Accidents</li> </ul>	<ul style="list-style-type: none"> <li>• Inquiries in this category mainly aim at grasping the situation of damage on the facility and the parts where some troubles are observed of the facility.</li> </ul>
Effectiveness of Sub-project	<ul style="list-style-type: none"> <li>• Traffic Volume</li> <li>• Access to Public Facilities (Markets, Schools, Hospitals and so on)</li> </ul>	<ul style="list-style-type: none"> <li>• Inquiries in this category mainly aim at confirming situation of utilization of the roads and degree of time saving for access to public facilities.</li> </ul>
Operation, Maintenance and Management (OM/M)	<ul style="list-style-type: none"> <li>• Organization and System for OM/M</li> <li>• O &amp; M Plan</li> <li>• Record of Rehabilitation</li> <li>• Main Instruments which needs Replacement</li> </ul>	<ul style="list-style-type: none"> <li>• Inquiries in this category mainly aim at grasping the actual situation of OM/M and confirming whether systematic O&amp;M is conducted or not, OM/M plan arrangement and preparation of an OM/M manual, also confirming the OM/M budget, records of repair, rehabilitation, etc. and main instruments to be maintained.</li> </ul>

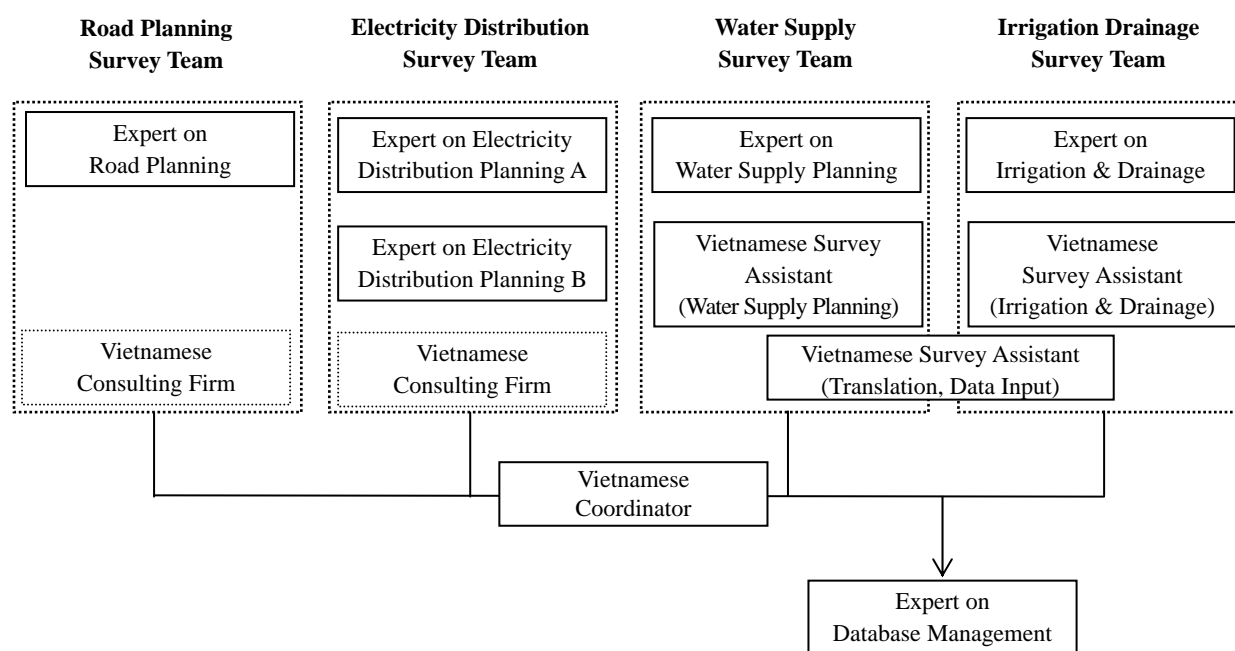
## 3.2 Methods of the Survey

### 3.2.1 Survey Executed

#### 3.2.1.1 Survey Team

The Survey Team consisted of six (6) Japanese members and four (4) Vietnamese members who worked for the Team on the contract basis.

The following Figure 3.2-1 shows the structure of the Survey Team.

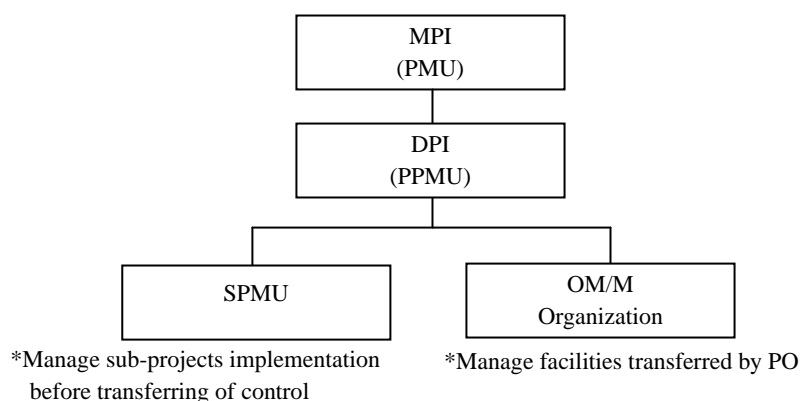


**Figure 3.2-1 Structure of the Survey Team**

### 3.2.1.2 Vietnamese Organizations Cooperated with the Survey

The General Service Department of MPI cooperated and assisted the Survey in the central level, and the Department of Planning and Investment of provinces coordinated with the Sub-project management unit (SPMUs<sup>1</sup>) and the OM/M organizations for delivery of the questionnaires and sending the replies to the Team.

Following Figure 3.2-2 shows the concept of the Vietnamese organizations concerned in the Survey.



**Figure 3.2-2 Concept of the Vietnamese Organizations Concerned in the Survey**

<sup>1</sup> In case that the facilities constructed under the sub-project have not been transferred to the OM/M organization, SPMU still have all the data and information even after starting the operation of facilities.

### **3.2.1.3 Entrusting the Site Survey on the Vietnamese Consulting Firms**

The Survey Team entrusted the tasks of site visiting survey of the road and the electricity distribution sectors to confirm the current situations of all the facilities constructed under SPLs considering a great number of facilities to be surveyed within four (4) months.

The Survey Team members in charge of the road and the electricity distribution sectors respectively started the selected Vietnamese Consulting Firms who have the experiences of the SPL Projects and their related surveys such as the Special Assistance for Project Formation (SAPROF) studies, etc. followed by the evaluation of the cost estimates submitted by the candidate consultant firms.

The Team completed the selection at the middle of April, 2010 and submitted the report on the procedure of selection to JICA immediately.

### **3.2.1.4 Number of Infrastructures Surveyed**

There is an infrastructure which is constructed through the sub-project in different phases. A number of infrastructures are/were constructed through sub-projects in different phases except the electricity distribution sector; the number of infrastructures is accordingly less than that of sub-projects. In case of water supply sector, three (3) sub-projects have the scheme to construct two (2) WSSs.

After all, the number of sub-projects surveyed is as follows:

**Table 3.2-1 Number of Infrastructures**

Sector	Road	Electricity Distribution	Water Supply	Irrigation	Total
No. of Sub-projects	518	526	96	85	1,225
No. of Infrastructures	408	526	97	84	1,115

The list of the infrastructures and their distribution by province are shown in Appendices 1.2, 1.3 and 3.1.

### **3.2.1.5 Timeline of Survey Carried Out**

The Survey started its preparation on March, 2010 in Japan and the Team continued the preparation works including discussion with MPI, deliver of the questionnaires, etc. on April in Hanoi followed by the site visiting survey which took around four (4) months to complete. In parallel with the questionnaire and site surveys, the database specialist prepared the database format which would have the data and information collected through the survey. The Survey Team prepared the draft final report on September for comments from the parties concerned. After having the comments, it submitted the final report on November, 2010.

**Table 3.2-2 Timeline of the Survey**

	2010									
	3	4	5	6	7	8	9	10	11	
Preoperation in Japan										
Preparation in Vietnam										
Delivery of Questionnaire										
Receiving the Replies to the Questionnaires										
Site Visiting (Road Sector)										
Site Visiting (Electricity Sector)										
Site Visiting (Water Supply Sector)										
Site Visiting (Irrigation Sector)										
Preparation of Database Format										
Data Input for the Database (Road and Electricity Sectors)										
Data Input for the Database (Water Supply and Irrigation Sectors)										
Workshop on Database										
Reporting (Inception Report)										
Reporting (Interim Report)										
Reporting (Draft Final Report)										
Reporting (Final Report)										

### 3.2.2 Questionnaire Survey

The Survey Team intended to send the questionnaires to MPI, DPIs, District People's Committees (DPCs) and OM/M organizations of all the facilities, however, the Team excluded the OM/M organizations relative to SPL I and II after the discussion with MPI due to the difficulties to identify them of which facilities had been constructed long ago and were altered, renewed or replaced up to present.

The Survey for the facilities relative to SPL I and II and their OM/M organization were made with the visual confirmation and interview by the Survey Team members with the assistance of DPIs.

The Team sent the questionnaire at the end of April with the assistance of MPI and expected to receive the replies by the end of June at the latest, though the Team requested to reply to the questionnaires by 20<sup>th</sup> May, 2010. However, the rate of receiving the replies was quite low even at the end of June; the Team continued to make effort to receive them as much as possible with the assistance of MPI and



JICA. Appendix 3.2 shows the record on receiving the replies to the questionnaires. As shown in the Appendix 3.2, the average rate of receiving the replies to the questionnaires is less than 50%.

It might come from the complexity of the questionnaire and sending its reply. MPI sent the questionnaire by the request of the Survey Team to DPI and DPI makes copies of it to send them to the SPMUs through the DPC concerned or send it to the OM/M organizations sometimes through DPC and the replies were not necessarily sent through the opposite way to the Survey Team.

In the course of the delivery of the documents, the questionnaire might not reach the just person of the OM/M of the facilities and the reply long time after the delivery might go an inappropriate place.

The questionnaire made out for the Assets Survey is shown in the Appendix 3.3.

### 3.2.3 Site Survey

Appendix 3.4 shows the Progress Record of the Survey.

#### 3.2.3.1 Number of the Survey Team and Scope of Work of Each Team

The road sector executed the survey by the Vietnamese consultant. The Vietnamese consultant was employed in compliance with "Guide for evaluation procedures for employment of consultants, June 2006".

As shown in Table 3.2-3, there are 518 sub-projects in the road sector. Six (6) survey teams were necessary to complete the Survey for 518 sub-projects within the contracted survey period, which is three (3) months, with the Vietnamese consulting firm.

**Table 3.2-3 Number of Sub-Projects of Road Sector**

Area	Region	No of Sub-projects	
Northern Area	North East	118	267
	North West	35	
	Red River Delta	114	
Central Area	North Central Coast	79	118
	South Central Coast	39	
Southern Area	Central Highlands	36	133
	South East	32	
	Mekong River Delta	65	
Total		518	518

In road sector, about half of sub-projects are located in the northern area. Moreover, since the area is a mountainous, time was needed for the travel between sites. Considering these conditions, three teams were assigned for the northern area, one for central area and one for southern area. Moreover, another team in charge of management of site survey and data input was established.

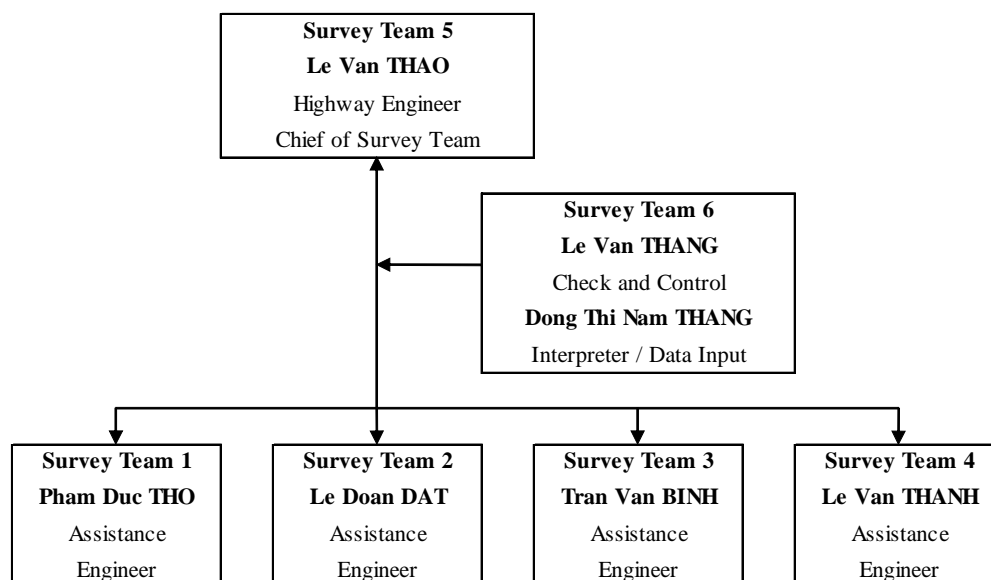
The number of sub-projects and provinces for each survey team are shown in the following table:

**Table 3.2-4 Outline of the Site Survey for Each Team**

Site Survey Team	No of Sub-projects	No of Province	Province
Team 1	112	11	Son La , Hoa Binh, Vinh Phuc, Yen Bai, Tuyen Quang, Thai Nguyen, Bac Kan, Cao Bang, Lang Son, Bac Giang, Quang Ninh
Team 2	130	11	Hai Duong , Hai Phong, Hung Yen, Bac Ninh, Thai Binh, Nam Dinh, Ha Nam, Ninh Binh, Thanh Hoa, Nghe An, Ha Noi
Team 3	122	15	Ha Tinh , Quang Binh, Quang Tri, Thua Thien Hue, Da Nang, Quang Nam, Quang Ngai, Binh Dinh, Phu Yen, Khanh Hoa, Lam Dong, Dak Nong, Dak Lak, Gia Lai, Kon Tum
Team 4	97	20	Ninh Thuan , Binh Thuan, Binh Phuoc, Dong Nai, Ba Ria Vung Tau, Binh Duong, Tay Ninh, Long An, Tien Giang, Vinh Long, Can Tho, An Giang, Hau Giang, Kien Giang, Ca Mau, Bac Lieu, Dong Thap, Soc Trang, Ben Tre, Tra Vinh
Team 5	56	5	Ha Giang , Lao Cai , Lai Chau , Dien Bien, Phu Tho
Team 6	In Charge of Management of Site Survey and Data Input		
Total	517	62	

### 3.2.3.2 Structure of the Survey Team

Team five (5) was responsible to coordinate with the remaining survey teams and informed necessary instructions and schedule arrangement for each survey team. As a result, discrepancies of outputs by each team were minimized. The number of sub-projects and provinces were evenly shared by each survey team, thus each survey team completed the site survey within the schedule.



**Figure 3.2-3 Structure of Road Sector Survey Team**

### 3.2.3.3 Item of the Site Survey

The direct observation was executed to the following items on sub-projects which were already constructed.

- Whether obstruction factors (bottleneck) of the traffic function exist or not
- The trend (pattern of a vehicle) of the road users
- The development conditions of the road adjacent and surrounding areas
- The situation of damaged road

### 3.2.3.4 Survey Schedule

Contract with the Vietnamese Consulting Firm was made to execute the survey works within five months. Accordingly, the schedule of work was prepared to meet the contract as follows. The overall survey progress had to be assured within the schedule. The site survey period was planned within three months from May to July, 2010. The survey teams had to consider to be able to conduct the survey at 518 places of sub-project within this period.

The overall schedule of the survey is shown in Table 3.2-5.

**Table 3.2-5 Survey Schedule of Road Sector**

	2010											
	4	5	6	7	8	9						
Preparation in Vietnam	■	■										
Delivery of Questionnaire		■										
Receiving the Replies to the Questionnaires			■	■	■	■	■	■	■	■	■	■
Site Visiting		■	■	■	■	■						
Data Input for the Database			■	■	■	■	■	■	■	■		
Reporting (Inception Report)	■											
Reporting (Interim Report)							■					
Reporting (Draft Final Report)										■	■	■

## **Chapter 4 Outline, Current Situation and Utilization of the Facilities Constructed under SPL**

### **4.1 Outline of Facilities**

#### **4.1.1 Outline of Facilities**

##### **4.1.1.1 Number of Sub-Projects**

According to the materials from MPI, there are in total of 517 sub-projects under the road sector. However, based on the result of the site visits, the number of the sub-projects was revised as follows:

The number of the sub-projects based on the materials:	517 sub-projects
The number of the sub-projects to be added:	1 sub-project
The revised number of the sub-projects based on the site survey:	518 sub-projects

In Gia Lai province, hydroelectric project had been planned near the site of the sub-project of “Province Road 675” (SPL V) by private sector and DPI proposed the “Inter-commune Road of Eastern of Ben Mong bridge” sub-project as the relocation of the hydroelectric project. Thus, one sub-project was added.

##### **4.1.1.2 Number of Sub-Projects in Each Phase**

As shown in Table 4.1-1, approximately 100 sub-projects were executed at SPL I, II and III respectively. In contrast, number of sub-projects in SPL IV and V is 60 and 68 respectively. Hence, they were too many to have sufficient fund for reasonable scale of the road project, and accordingly the average fund for each sub-projects became too small for those in SPL I and III. Since SPL IV, number of sub-projects is reduced so that the average fund for sub-projects was increased.

**Table 4.1-1 Number of Sub-Projects by each SPL Phase**

Phase	No. of Sub-projects in Plain Area	No. of Sub-projects in Mountainous Area	Total
SPL I	103	51	154
SPL II	90	52	142
SPL III	52	42	94
SPL IV	11	49	60
SPL V	19	49	68
Total	275	243	518

There is a tendency that the number of sub-projects in mountainous roads is increasing since SPL IV.

#### 4.1.1.3 Type of Construction

There are in total 518 sub-projects, out of which 421 sub-projects improved the existing roads and 97 sub-projects newly constructed roads.

When the road is newly constructed, the problem of Right of Way (ROW) will occur, and this often takes the time for negotiation and the conferences with all the relevant persons. In addition, if the present topographic condition in the mountainous area changes, it will affect the environment. Therefore, the Project Owners (POs) prefer the sub-projects with improvement on the existing road. In case of consideration for the economic efficiency of projects, the improvement of existing road is usually selected. The SPL Projects accordingly implemented a number of sub-projects with such contents.

**Table 4.1-2 Number of Sub-Projects by Type of Construction**

Phase	New Construction	Improvement of the Existing Road	Total
SPL I	23	131	154
SPL II	27	115	142
SPL III	17	77	94
SPL IV	13	47	60
SPL V	17	51	68
Total	97	421	518

#### 4.1.1.4 Width of the Road

Most of the roads constructed under SPL Projects are small scale as better indicated in their respective names. As shown in Table 4.1-3, approximately 70% of the roads have the width of less than 7 m and the half of them has less than 4m. It seemed to come from the facts of low traffic volume and a lot of sub-projects to improve the existing roads by widening them.

**Table 4.1-3 Width of Road Constructed under SPL Sub-Projects**

Width of the Road	No. of Sub-projects	No. of Sub-projects (%)
Less than 4m	202	39.0
More than 4m-Less than 7m	195	37.6
More than 7m-Less than 10m	49	9.5
More than 10m-Less than 13m	10	1.9
More than 13m-Less than 16m	8	1.5
More than 16m-Less than 19m	4	0.8
More than 19m	50	9.7
Total	518	100.0

#### **4.1.1.5 Type of Pavement**

Most of the roads under the SPL Projects have asphalt pavement. Only a few roads have gravel pavement.

**Table 4.1-4 Number of Sub-Projects by Type of Pavement**

Type of the Pavement	No. of Sub-projects
Asphalt Concrete (AC)	100
Bituminous Penetration Macadam (BPM)	380
AC and BPM	8
Concrete pavement	9
Asphalt/Gravel pavement	1
Gravel pavement	20
Total	518

#### **4.1.1.6 Road Class**

The design specification of SPL road sub-projects is in accordance with “TCVN4054-85/98/2005 (the latest version is TCVN4054-2005, Third Edition), Highway-Specifications”, which is applied to expressways and other general roads. "22TCN 210-92, Rural Road Design Standard" issued by the Ministry of Transport (MOT) is applied to small roads.

The road class stipulated in TCVN4054-2005 and 22TCN 210-92 are shown in Table 4.1-5 and Table 4.1-6, respectively.

**Table 4.1-5 Major Functions of Expressway and Other General Roads by Road Class**

Road Class	Classification of Area	Design Traffic Volume (PCU/day)	Major Functions
Class I	Plain	> 15,000	arterial road, connecting large national economic, political, cultural centers, national highway
Class II	Plain	> 6,000	arterial road, connecting large national economic, political, cultural centers, national highway
Class III	Plain	> 3,000	arterial road, connecting large national and regional economic, political, cultural centers, national highway or provincial road
	Mountain		
Class IV	Plain	> 500	highway connecting regional centers, depots, residential areas, national highways, provincial road, district roads
	Mountain		
Class V	Plain	> 200	road serving for local traffic. provincial road, district road, communal road
	Mountain		
Class VI	Plain	< 200	district road, communal road
	Mountain		

Note: Classification of the mountain is the road where 30% or more of its full length is a cut slope. This is defined in TCVN4054-2005.

Source: TCVN4054-2005 Highway - Specifications for Design, Third Edition

**Table 4.1-6 Major Functions of Rural Roads by Road Class**

Road Class	Classification of Area	Design Traffic Volume (PCU/day)	Major Functions
Rural A	-	-	Road from commune to village (Carriageway 3.5m)
Rural B	-	-	Commune Road (Carriageway 3.0m)

Source: 22TCN 210-92:1993, Rural Road Design Standard

A lot of roads were constructed under the SPL Projects (80%) with the scope of class IV-VI as shown in Table 4.1-7.

**Table 4.1-7 Classes of Roads Constructed under SPL**

Road Class	Plain	Mountain	Total
Class I	6	0	6
Class II	15	6*	21
Class III	24	9	33



Road Class	Plain	Mountain	Total
Class IV	145	80	225
Class V	63	79	142
Class VI	18	45	63
Rural A	2	20	22
Rural B	2	4	6
Total	275	243	518

Note: TCVN4054-2005 was not applied to the mountainous area road. However, more than 30% of the cut slope was observed in a number of roads during the site investigation, thus such roads were classified as the mountainous area.

## 4.1.2 Components of Facilities

The main components of facilities constructed under road sector sub-projects are categorized into the following six (6) types.

- Tunnel
- Bridge, box culvert, pipe culvert
- Retaining wall
- Embankment
- Drainage facility
- Accessory facility

### 4.1.2.1 Tunnel

The structure is formed artificially along the underground due to high embankment or mountains from the ground to the destination. In other words, the tunnel is slenderer than its sectional height or width. Under SPL Projects, only one sub-project of Road 207 (Ha Lang-Bang Ca-ly Van) in Cao Bang province under SPL IV has this component.

### 4.1.2.2 Bridge, Box Culvert, Pipe Culvert

Bridge, box culvert, and pipe culvert are installed for the purpose of crossing the river. The drainage facilities are installed along the roads. There are many different types of bridges, depending on span such as steel bridge, reinforce concrete bridge, pre-stressed concrete bridge and so on. 50 bridges, 103 spillways, and the 3403 box/pipe culverts were constructed under SPL Projects.

### 4.1.2.3 Retaining Wall

Retaining walls are mainly used to support the soil against the earth pressure. They are made of concrete, masonry or mattress-gabion. The standby retaining wall defending a dropping boulder from the slope is constructed in the mountainous area. Under the SPL Projects, the retaining wall was commonly constructed in the embankment section of the rear of bridge abutment. After a

landslide, the site was repaired by the mattress-gabion in order to withstand another attack of landslide.

#### **4.1.2.4 Embankment**

The structure consists of earth and sand to keep flatness of the road surface. The embankment is often constructed in the rear section of bridge abutment like retaining wall. The surfaces are often protected by the riprap.

#### **4.1.2.5 Drainage Facilities**

The side ditch or the catch-basin is installed in order to drain surface water on the road. Under SPL Projects, a lot of drainage facilities were constructed of riprap. However, majority of the drainage facilities of urban roads are made of concrete.

#### **4.1.2.6 Utilities**

Utilities are installed on the road surface. They are guardrails, kilometer posts, medians, lighting facilities, road signs, planting and so on. The utilities of the SPL Projects were only seen on the urban roads. Regarding small-scale roads in the mountainous area, only guardrails and the kilometer posts made of concrete were seen.

### **4.2 State of Utilization of Facilities**

#### **4.2.1 Traffic Volume**

The survey teams conducted interview survey about traffic volume by the questionnaire and the survey form to obtain the current conditions of facilities. Total number of the sub-projects answered to the interview was 296 (about 60%). The number of sub-projects without any answers was 190, and no answer due to under construction was 29, as shown in Table 4.2-1.

**Table 4.2-1 Number of Sub-Projects by Traffic Volume**

Traffic Volume (PCU)	No. of Sub-projects according to the Road Class								Total
	I	II	III	IV	V	VI	A	B	
Less than 200	1	1	5	13	39	19	6	3	87
More than 200 - Less than 500	-	6	2	44	34	11	1	-	98
More than 500 - Less than 1,000	-	5	6	31	12	5	2	-	61
More than 1,000 - Less than 2,000	-	-	5	19	9	-	-	-	33
More than 2,000 - Less than 3,000	-	1	3	3	1	-	-	-	8
More than 3,000	4	-	-	4	-	1	-	-	9
No Answer	1	8	11	101	37	22	9	3	192
Under Construction	-	-	1	9	11	5	4	-	30
Total	6	21	33	224	143	63	22	6	518

According to the above results, the number of the sub-projects with their traffic volume lower than 1,000pcu/day accounts for 80% of the total. It shows that traffic of the roads constructed under SPL Projects is very small. As shown in Table 4.2-2, as the width of roads becomes narrower, traffic volume comes to tend to decrease. Accordingly, road planning seems to be valid. When referring it to the Japanese road criterion<sup>2</sup>, the roads are almost equivalent to Class 3-4 (designed daily volume 500-1,500pcu/day) and Class 3-5 (designed daily volume 500pcu/day). The traffic volume of the roads constructed under SPL Projects can be said as standard when compared with the designed daily volume.

**Table 4.2-2 Relations between Traffic Volume and the Width**

Traffic Volume (PCU) Width of the Road	Less than 200	Less than 200 More than 500	Less than 500 More than 1000	Less than 1000 More than 2000	Less than 2000 More than 3000	More than 3000	No Answer	Under Const- ruction	Total
Less than 4m	54	43	13	8	1	1	58	23	201
More than 4m-Less than 7m	22	35	23	14	1	3	65	7	170
More than 7m-Less than 10m	8	9	15	8	4	1	49	-	94
More than 10m-Less than 13m	-	3	3	2	1	-	6	-	15
More than 13m-Less than 16m	2	3	5	-	1	-	2	-	13
More than 16m-Less than 19m	-	-	2	-	-	-	2	-	4
More than 19m	1	5	-	1	-	4	9	-	20
other	-	-	-	-	-	-	1	-	1
Total	87	98	61	33	8	9	192	30	518

On the other hand, there were nine (9) sub-projects with traffic volume more than 3,000pcu/day, they are sub-projects for Urban and District Roads. Table 4.2-3 shows the list of the sub-projects with their traffic volume more than 3,000 pcu/day.

<sup>2</sup> A commentary and application of "Road Structure Ordinance" February, 2004 Japan Road Association

**Table 4.2-3 Sub-Projects Having Traffic Volume more than 3000pcu/day**

Province	Phase	Sub-project	Class of Road	Annual Average Daily Traffic (pcu)	Remark
Binh Dinh	SPL I	Nguyen Hue A Road	Class I	5,114	Urban Road
Binh Dinh	SPL II	Quy Nhon - Song Cau Road	Class IV	4,489	Urban Road
Can Tho	SPL I	Mau Than Road Upgrading	Class I	4,758	Urban Road
Can Tho	SPL I	Thirty April Road (Hoa Binh-Dau Sau)	Class I	4,218	Urban Road
Can Tho	SPL II	Thirty April Road (Cau Tham Tuong-Duong Lao)	Class I	4,218	Urban Road
Quang Ngai	SPL I	Son Ha - Son Tay Road	Class VI	3,468	District Road
Quang Ngai	SPL II	Ca Dao Pass	Class IV	3,468	District Road
Quang Ngai	SPL II	Quang Ngai - Co Luy Road	Class IV	4,535	District Road
Thanh Hoa	SPL II	Tinh Gia - Bim Son - Hoang Hoa Road	Class IV	3,270	District Road

Note: Urban road : Lying within the administrative boundaries of inner cities or urban centers.

District Road: Linking districts' administrative centers with the administrative centers of communes or commune clusters or with adjacent districts' administrative centers.

After SPL Projects completion, the Class I road was upgraded to the national highway. Thus, rather big traffic volume was observed. Concerning the other district roads, such increase was not observed at the time of investigation. It was assumed that annual average daily traffic of motorbike was also counted as Passenger Car Unit (PCU) in Table 4.2-3. The definition of urban and district road are stated in “Prescribing the Management and Protection of Road Traffic Infrastructures Government Decree No.186/204/ND-CO” .

#### **4.2.2 Main Vehicles**

The road survey teams also carried out interview on different types of vehicles used on the roads constructed under SPL Projects by the questionnaire and the survey form. According to the results summarized in Table 4.2-4, motorcycle, car and truck are the main vehicles used in the sub-project roads. It is noted that cars and motorcycles occupied almost 60% of the total.

**Table 4.2-4 Number of Sub-Projects by Type of Main Vehicle**

Type of main vehicle	No. of Sub-projects
Motorcycle	102
Car/ Motorcycle	309
Truck	6
Truck/Motorcycle	24
Truck/ Car/ Motorcycle	33
No answer	14
Under Construction	30
Total	518

### 4.2.3 Condition of Other Utilization of Facilities

Regarding the conditions of other road utilization, it was observed that there were many straws covering the road surface. The respondents said that it was important to dry the farm crops for farmer's living and their livestock. However, piles of straws on the road made it difficult to confirm the conditions of the road for drivers, and would cause problems in safety.



**Figure 4.2-1 Example of Unsuitable Use of the Road (Phu Tho Province Road 315)**

## 4.3 Current Conditions of Facilities

### 4.3.1 Damages Affected by Disasters

According to the site survey results, there are three (3) kinds of damages caused by disasters, i.e. landslides, rock falls and floods (scouring/earth-flow). It was confirmed there were 30 sub-projects completely or slightly damaged by such. The characteristic of the road damaged by natural disasters are: i) roads classified in lower than class IV and ii) roads in mountainous area. However, after receiving the information on damages to roads by disaster, PMU-MPI requested the provinces to repair the damaged spots immediately.

**Table 4.3-1 Sub-Project Affected by Natural Disaster**

Province	Phase	Sub-project	The Type of the Disaster	Remark
Bac Giang	SPL V	Yen Dinh - Thanh Luan Road	Land Slide	
Bac Kan	SPL II	Boc Bo-Cong Bang Road	Land Slide	
Bac Kan	SPL III	Quang Phong-Dong Xa Road	Land Slide	
Bac Kan	SPL IV	Nong Ha - Thanh Van Road	Land Slide	
Bac Kan	SPL IV	Van Tung- Thuan Mang Road	Land Slide	
Bac Kan	SPL V	Cong Bang - Co Linh Road	Land Slide	
Cao Bang	SPL III	Ban Nga - Xuan Truong Commune Road	Land Slide	
Cao Bang	SPL IV	Provincial Road No.207	Land Slide	
Cao Bang	SPL IV	Provincial Road No.213	Land Slide	
Cao Bang	SPL IV	Trung Khanh - Kham Thanh - Phong Nam	Land Slide	
Dac Lak	SPL IV	Road D22	Wash Out	Problem
Dien Bien	SPL IV	Na Say - Muong Mun Road	Rock Fall	
Dien Bien	SPL IV	Phi Nhu - Xa Dung Road	Land Slide	
Hoa Binh	SPL V	Road 433 (Km 55-Km 84)	Rock Fall	Problem
Lai Chau	SPL IV	Nam Cay - Sin Cai Road	Land Slide	Problem
Lai Chau	SPL V	Dao San - Pa Vay Su Road	Land Slide	
Lang Son	SPL III	Na Sam-Na Hinh Road	Land Slide	
Lang Son	SPL IV	Hoa Binh - Binh La - Gia Mien road	Land Slide	
Lang Son	SPL IV	Provincial Road No.237C	Land Slide	
Lao Cai	SPL IV	Hoang Lien Son II Road	Rock Fall	
Lao Cai	SPL V	Bac Ngam - Bac Ha Road	Land Slide	
Nghe An	SPL IV	Hanh Dich - Muong Don Road	Rock Fall	
Nghe An	SPL IV	Song Giang Bridge	Wash Out	Problem
Phu Tho	SPL IV	Station 312 - Hung Long Triway Road	Land Slide	
Quang Tri	SPL IV	Ta Rut – A Vao Road	Wash Out	Problem
Son La	SPL III	Van Ho - Xuan Nha Road	Land Slide	
Son La	SPL IV	Xuan Nha - Tan Xuan Road	Land Slide	
Thai Nguyen	SPL I	Dinh Ca - Khuon Manh Road	Wash Out	Problem
Tuyen Quang	SPL III	Khau Lang - Cao Duong Road	Land Slide	Problem
Tuyen Quang	SPL IV	Phuc Thinh – Trung Ha Road	Wash Out	Problem

Although areas with frequent natural disasters are limited, since it occurs unexpectedly, it is difficult to predict. Once a natural disaster occurs, traffic will be shut out. Therefore, the road network will stop to function and thus a sub-project becomes less effective.

In provinces and districts shown in Table 4.3-2, probability of the natural disasters occurrence is high. Therefore, it is necessary to take measures such as the inspection at rainfall to prevent any damages and so on.

**Table 4.3-2 Districts Prone to Natural Disaster**

Province	District	No. of Sub-projects	Remark
Bac Giang	Son Dong	1	Yen Dinh-Thanh Luan Road
Bac Kan	Pac Nam, Na Ri, Bac Kan, Cho Moi, Ngan Son	6	
Cao Bang	Bao Lac, Trung Khanh, Ha Lang	4	
Dac Lak	M'Drak	1	Road D22
Dien Bien	Dien Bien Dong, Dien Bien Dong	3	
Hoa Binh	Da Bac	1	Road No.433
Lai Chau	Phong Tho	2	
Lang Son	Van lang, Loc Binh, Van Quan, Binh Gia	3	
Lao Cai	Muong Khuong, Bac Ha	2	
Nghe An	Que Phong	1	Hanh Dich - Muong Don Road
Phu Tho	Yen Lap	1	Station 312 - Hung Long Triway Road
Quang Tri	Dakrong	1	Central Road in Dakrong District
Son La	Moc Chau,	3	
Thai Nguyen	Vo Nhai	1	Dinh Ca - Khuon Manh Road
Tuyen Quang	Ham Yen, Chiem Hoa,	2	

Although 30 sub-projects shown in table 4.3-1 are passable, there are eight (8) sub-projects with "problem" as shown in the "Remark" of the table. Those sub-projects are difficult to pass or possess risks on safety. Their detail explanations are made as follows:

**(1) Khau Lang - Cao Duong Road, SPL III (Tuyen Quang province, Ham Yen district)**

The road was constructed by ripping rock face with fragile and high collapsibility at Km 5. Therefore, there are a lot of fallen rocks on the road from Km 5 to Km 6, and a lot of small-size rocks are seen in the shoulder. There are also a lot of fallen rocks piled nearly ending point, thus it was very difficult to pass through by a standard vehicle.



**Figure 4.3-1 Condition at Km 5 and Km 6**

(Left: Km 5, Right: Km 6)

**(2) Phuc Thinh - Trung Ha Road, SPL IV (Tuyen Quang province, Chiem Hoa district)**

A submerged bridge was constructed near Km 26+200. This type of bridge is designed for water overflow in case of floods. The safe posts at the downstream of the bridge have been damaged by rock flowed. They need to be repaired for vehicles including motorcycle and bicycle to safely pass through.



**Figure 4.3-2 Condition of Submerged Bridge at Km 26+200**

**(3) Dinh Ca - Khuon Manh Road, SPL I (Thai Nguyen province, Vo Nhai district)**

The spillway was constructed to cross the river, however it was unable to pass because it had been flowed out by flood. However, it was not a serious problem for the people living there, because the river was located at the end of the road and a new nearby bridge had been already constructed.





**Figure 4.3-3 Condition of the River crossing at Km 7+930**

**(4) Nam Cay - Sin Cai Road, SPL IV (Lai Chau province, Phong Tho district)**

The road was buried with earth and sand flowed out from the mountains and the valleys at Km 16 of the road. The section of approximately 100m long was affected. The section was accessible during the site survey. However, it was difficult to drive through with a vehicle except a four-wheel vehicle.



**Figure 4.3-4 Condition of Buried Road Section at Km 16**

**(5) Road 433 (Km 55-Km 84), SPL V (Hoa Binh province, Da Bac district)**

The road constructed by ripping rock face with fragile and high collapsibility at Km 75-Km 84. A lot of fallen rocks were observed on the road. The size of fallen rocks in this area was large, and the size of some rocks was more than one (1) meter. It is desirable to remove them.





**Figure 4.3-5 Condition of Ripped Rock Section at Km 75+100, Fallen Rocks at Km 80+700**  
(Left: Km 75+100, Right: Km 80+700)

**(6) Song Giang Bridge, SPL IV (Nghe An province, Thanh Chuong district)**

The type of the bridge is a submerged bridge, thus the water flow can exceed the bridge surface at the time of flood. The five (5) and six (6) safety posts were damaged by rocks flowed at the upstream and the downstream areas, respectively. Therefore the condition of the bridge was not good for safe driving. The slope protection beside abutment was also damaged by scour. It is desirable to take measures to protect it in advance.



**Figure 4.3-6 Conditions of Damaged Safety Posts and Damaged Slope Protection**  
(Left: Damaged Safety Posts, Right: Damaged Slope Protection)

**(7) Ta Rut - A Vao Road , SPL IV (Quang Tri province, Dakrong district)**

The submerged bridge was constructed at Km 1+200 and Km 4+450 of the road. There was a problem that stones, roots and any other dusts piled up in the upper side of it and they damaged the structure, safety posts (wheel guards) and road surface were especially. The safety posts play important role in case of overflows.



**Figure 4.3-7 Damaged Safety Posts and Surface at Km 1+200,  
Blocked by Obstacles at Km 4+450**  
(Left: Km 1+200, Right: Km 4+450)

**(8) Road D22, SPL IV (Dac Lak province, M'Drak district)**

A half of the road width was unable to pass near from Km 10+800 to Km 10+850 due to subsidence of the spillway by scouring. The spillway was located at the sag of downhill, which accelerates the speed of vehicle easily, it was consequently so dangerous to pass the damaged section. It was necessary to repair without delay. In addition, all of the safety posts had been broken due to flood and the situation was quite dangerous.



**Figure 4.3-8 Overview of the Section at Km 10+800, Damaged Spilway at Km 10+850**  
(Left: Km 1+200, Right: Km 4+450)

## **4.3.2 Capacity**

### **4.3.2.1 Sub-Project with Bottleneck**

There are some sub-projects with a bottleneck at the constructed roads. The bottlenecks might cause traffic jam. Hence, the sub-projects might become less effective when traffic volume would increase. However, at the site survey, the traffic jam nor a vehicle with decreased speed caused by the bottleneck

were observed.

**Table 4.3-3 List of Sub-Projects Having Potential of Bottleneck**

Province	Phase	Sub-project	District	Station	Reason of the Bottleneck
Bac Giang	SPL III	Yen Dinh-Thanh Luan Road	Son Dong	Km 7+732	Bridge
Bac Kan	SPL IV	Nong Ha - Thanh Van Road	Bac Kan, Cho Moi	Km 4+000	The width decrease by the landslide
Ben Tre	SPL IV	Provincial Road No.883	Binh Dai	Km 53+800	Bridge
Dong Thap	SPL I	PR No.847 (Thet - My An - Bang Lang Rd.)	Thap Muoi	Km 10+600	Bridge
Ha Nam	SPL I	Road No.62	Phu Ly, Binh Luc	Km 16+700	Bridge
Hung Yen	SPL I	Road No.200 (My Van, An Thi, Tien Lu)	An Thi, Tien Lu	Km 15	Width is narrow partially
Lam Dong	SPL II	Hoa Ninh - Hoa Nam Road	Di Linh	Km 9+300	Bridge
Ninh Thuan	SPL II	Phan Rang-Phap Cham Dike Road	Phan Thiet	Km 6+300 Dike	Width is narrow partially
Tien Giang	SPL I	Provincial Road No.867	Chau Thanh	Km 2+548	Bridge
Vinh Phuc	SPL II	Trung My - Huong Canh Road	Binh Xuyen	Km 2+000	Bridge

Most of the bottlenecks were “the bridges”, because they were not constructed as the portion of road sub-projects and the roads constructed under SPL Project was connected to the existing bridges due to the high estimated cost for the bridge construction.

With well understanding the situation, in the process of managing the SPLs, PMU repeatedly requested provinces to utilize other source of fund (from government, other donors) to solve the issue of bottlenecks in order to have SPL sub-projects efficiently operated.

In the near future, if the bridges will be constructed, the bottleneck section will hopefully be dissolved, because Tien Giang and Dong Thap province are currently working on the problems concerning the bottlenecks.



#### **4.3.2.2 Road without Continuity**

##### **From Km 27 (NR 2) to Trung Thanh Bach Ngoc Triway and Trung Thanh Bridge, SPL IV (Ha Giang province, Vi Xuyen district)**

The sub-project under SPL IV includes the road with its total length of 2.4 km and the bridge. At the time of the site survey, the bridge was still under construction. The existing wire bridge was used as the detour, and people had to be careful on their speed and load of vehicles when they passed through. Also, it was deteriorated and accordingly had problems on safety.

According to the explanation by DOT, although the original plan included construction of the both road and bridge, due to the price escalation of the materials, SPL fund was used only for the road portion. Therefore, the bridge was completed using surplus fund of SPL IV. However, completion of the entire road section was delayed due to the bridge construction works.

In the early September, 2010, the survey team contacted with DPI in Ha Giang province and confirmed on the progress of the bridge construction. The bridge was completed and was opened for traffic in early September.



**Figure 4.3-9 Bridge under Construction, Deteriorated Existing Wire Bridge  
Used as a Detour (Left: Bridge, Right: Wire Bridge)**

#### **4.3.3 Deterioration by Aging and Insufficient Maintenance and Management**

##### **4.3.3.1 Evaluation Method on the Survey**

The survey team set evaluation criteria on the current conditions of roads under SPLs in order to make the road survey effective. The evaluation method is explained as follows. It is noted that damages by natural disaster which is the accidentally occurred is not included in the analysis

(Evaluation Rank)

A: There is no damaged

B: There are potholes / the other damages; small scale

C: There are potholes / the other damages; middle scale

D: There are potholes / the other damages; overall

E: There are partial damages / problem in safety

Other: Under construction

Rank B is "almost in good condition ", but "There are small damages" (i.e. small rutting of pavement, a small crack of pavement). Sub-projects with rank B don't have problem about the vehicle traffic, and it is almost considered as rank A.

#### **4.3.3.2 Evaluation Results**

Rank B can be considered as almost same as the rank A. The roads of 87% (453) of the sub-projects are almost in good condition. The sub-project with rank C and D are 25 and they are desirable to be repaired without delay.

Since the funds for rehabilitation is limited, PMU is requesting each provinces to do OM/M in order to prolong the effective service life of sub-projects, especially roads on rank C, D, E.

Table 4.3-4 shows the evaluation result and that of 25 sub-projects with rank C and D are shown in Table 4.3-5.

Concerning the sub-projects with rank E, they had sections that are partly damaged. Hence, they could not be applied as the indicator of damage to the whole roads. Therefore, they will be reported separately. Table 4.3-6 shows the sub-projects with rank E.

**Table 4.3-4 Evaluation of Road Deterioration**

Evaluation Rank	SPL I	SPL II	SPL III	SPL IV	SPL V	Total	No. of Sub-project (%)
No. of Sub-project	154	142	94	60	68	518	100
A	35	18	2	8	11	74	14
B	108	115	84	51	21	379	73
C	11	4	3	1	-	19	4
D	-	3	2	-	1	6	1
Other	-	2	3	-	35	40	8
Total	154	142	94	60	68	518	100

**Table 4.3-5 Sub-Projects with Rank C, D**

Province	Phase	Sub-project	District	Rank
Bac Giang	SPL I,IR*	Road No.268 (Bo Ha - Mo Tang)	Yen The	C
Bac Kan	SPL III	Quang Phong-Dong Xa Road	Na Ri	C
Bac Ninh	SPL I	Lang Ngan - Van Thai Road	Gia Binh	C
Bac Ninh	SPL II	Road No.270, Tien Son	Tien Du	C
Cao Bang	SPL II	Road No.204	Thong Nong	C
Dac Lak	SPL II	Urban Road Ea Soup Town	Ea Sup	D(E)
Dien Bien	SPL III	Na Son - Xa Dung Road	Dien Bien Dong	D
Ha Nam	SPL I	Road No.57A(485 Road)	Thanh Liem	C
Ha Nam	SPL II	Road No.484, Thanh Liem	Thanh Liem	C
Hai Duong	SPL I	Road No.20B	NA	C
Kon Tum	SPL I	Road Ngoc Tem	Kon Plong	C
Kon Tum	SPL II	Road to Ngoc Tem Commune	Ngoc Hoi	C
Kon Tum	SPL III	Road to Ngoc Tem Commune	Konplong	C
Nam Dinh	SPL I	Road No.12A (Vu Ban)	Vu Ban	C
Nam Dinh	SPL I	Road No.12A (Y Yen)	Y Yen	C
Ninh Binh	SPL II	Cong Go - Mua Thu Road	Yen Mo	D
Ninh Binh	SPL II	Qui Hau - Do Muoi Road	Yen Khanh, Kim Son	D
Phu Tho	SPL I	Road P2	Phu Ninh	C(E)
Quang Nam	SPL I	An Diem - A So Road	Dai Loc	C
Quang Nam	SPL IV	An Diem - Ka Dang - A So Road	Dai Loc	C
Quang Ngai	SPL V	Tra Phong - Tra Khe - Tra Bao Road	Tay Tra	D
Son La	SPL III	Inter-commune Road Ban Moong-Muong Chanh	Son La Town	D
Tuyen Quang	SPL III	Khau Lang - Cao Duong Road	Ham Yen	C
Yen Bai	SPL I	Yen Bai - Khe Sang Road	Tran Yen	C

\*: IR means Reallocation of SPL I

**Table 4.3-6 Sub-Projects with Rank E**

Province	Phase	Name of Sub-project	District	Rank
Ba Ria Vung Tau	SPL II,III	Provincial Road No.765	Chau DUC	B(E)
Dac Lak	SPL II	Urban Road Ea Soup Town	Ea Sup	D(E)
Dac Lak	SPL IV	Road D22	M'Drak	B(E)
Ha Giang	SPL I,II	Yen Minh - Mau Due - Meo Vac Road	Yen Minh-Meo Vac	B(E)
Hoa Binh	SPL V	Road 433 (Km 55-Km 84)	Da Bac	B(E)
Hung Yen	SPL II,III	Road No.203B, Cau Cap - Quan Thu Road	Tien Lu, Phu Cu	B(E)
Hung Yen	SPL III	Road No.195, 201, 204	Phu Cu, Khoai Chau, Kim Dong	B(E)
Lai Chau	SPL IV	Nam Cay - Sin Cai Road	Phong Tho	B(E)
Lang Son	SPL I	That Khe - Quoc Khanh Road (PR No.228)	Trang Dinh	B(E)
Lang Son	SPL III	Na Sam-Na Hinh Road	Van lang	B(E)
Nghe An	SPL IV	Song Giang Bridge	Thanh Chuong	B(E)
Phu Tho	SPL I	Road P2	Phu Ninh	C(E)
Phu Tho	SPL V	Van Mieu - Thuong Cuu Road	Thanh Son	B(E)
Quang Ninh	SPL I,II,III	Hoanh Mo - Dong Van Road	Binh Lieu	B(E)
Quang Tri	SPL IV	Ta Rut - A Vao Road	Dakrong	B(E)
Thai Nguyen	SPL I	Dinh Ca - Khuon Manh Road	Vo Nhai	B(E)
Thanh Hoa	SPL V	Road from Do Trap bridge to Hai Ninh Coast	Tinh Gia	B(E)
Tuyen Quang	SPL IV	Phuc Thinh - Trung Ha Road	Chiem Hoa	B(E)
Vinh Phuc	SPL II	Quang Yen - Phu Hau Road	Lap Thach	B(E)
Yen Bai	SPL I,II	Nguyen Thai Hoc Road	Yen Bai City	A(E)



**(1) Yen Minh - Mau Due - Meo Vac Road, SPL I, II (Ha Giang province, Yen Minh-Meo Vac District)**

The road was evaluated as rank B. However, handrail of the bridge at Km 12+700 was damaged and thus it was considered dangerous for vehicle traffic. Hence, the sub-project was degraded to rank E.



**Figure 4.3-10 Damaged Handrail of Bridge at Km 12+700**

**(2) Phuc Thinh - Trung Ha Road, SPL IV (Tuyen Quang province, Chiem Hoa district)**

The road was evaluated as rank B. However, a large pothole and rutting were observed at near Km 6 and it was considered dangerous for vehicle traffic. Hence, the sub-project was graded down to rank E.



**Figure 4.3-11 Pothole of the Neighborhood at Km 6**

**(3) That Khe - Quoc Khanh Road (PR No.228), SPL I (Lang Son province, Trang Dinh district)**

The road was evaluated as rank B. However, a big pothole and rutting were observed at near Km 114+50, and it was considered dangerous for vehicle traffic. The sub-project was accordingly degraded to rank E.



**Figure 4.3-12 General View and Damaged Section near Km 114+50**

(Left: General View, Right: Damaged Section)

**(4) Na Sam-Na Hinh Road, SPL III (Lang Son province, Van Lang district)**

Due to the progressive damages, the road was evaluated as rank C. Deep potholes and rutting were found at near Km 2+800 and it was considered dangerous for vehicle traffic. Hence, the sub-project was degraded to rank E.



**Figure 4.3-13 General View and Deep Rutting Section near Km 2+800**

(Left: General View, Right: Deep Rutting Section)



**(5) Nguyen Thai Hoc Road, SPL I,II (Yen Bai province, Yen Bai city)**

The road was evaluated as rank A. However, the drainage side ditch constructed in boundary between sidewalk and roadway did not have a cover and it was possible for pedestrians and motorbikes to fall. The sub-project was accordingly degraded to rank E.



**Figure 4.3-14 Side Ditch without Cover**

**(6) Dinh Ca - Khuon Manh Road, SPL I (Thai Nguyen province ,Vo Nhai district)**

Details are mentioned in “4.3.1 Damages Affected by Disasters”

**(7) Road P2, SPL I (Phu Tho province, Phu Ninh district)**

Due to the progressive damage, the road was evaluated as rank C. The beam of the guardrail was damaged at the bridge constructed near Km 1+500 and it was considered dangerous for pedestrians, motorbikes and cars to pass through. Hence, the sub-project was degraded to rank E.



**Figure 4.3-15 Damaged Guardrail Beam at a Bridge near Km 1+500**

**(8) Van Mieu - Thuong Cuu Road, SPL V (Phu Tho province, Thanh Son district)**

The road was evaluated as rank B. The road was constructed very recently, but a big pothole was observed. The damage was sectional, but it was large. It might be dangerous for motorcycles to run through.

In addition, according to the explanation by OM/M organization, since the road was still in warranty period, it needed to be repaired as soon as possible.



**Figure 4.3-16 Damaged Road Section between Km 8 and Km 9**

**(9) Hoanh Mo - Dong Van Road, SPL I,II,III (Quang Ninh province, Binh Lieu district)**

The road was evaluated as rank B. The spillway was constructed near Km 6+500, but its shoulder had been eroded by the overflow of the drainage water.

This spillway was constructed in the curve section, and it was possible that a vehicle might fall, therefore the sub-project was graded down to rank E.



**Figure 4.3-17 Spillway Conditions near Km 6+500**



**(10) Nam Cay - Sin Cai Road, SPL IV (Lai Chau province, Phong Tho district)**

**(11) Road 433 (Km 55-Km 84), SPL V (Hoa Binh province, Da Bac district)**

The situation of above two sub-projects are explained in “4.3.1 Damages Affected by Disasters”

**(12) Quang Yen - Phu Hau Road, SPL II (Vinh Phuc province, Lap Thach district)**

The road was evaluated as rank B. However, large potholes were partially observed near Km 1+850. The road was considered dangerous for vehicle traffic, therefore the sub-project was graded down to rank E.



**Figure 4.3-18 General View and Rutting Section near Km 1+150**  
(Left: General View, Right: Deep Rutting Section)

**(13) Road No.203B, Cau Cap-Quan Thu Road, SPL II, III (Hung Yen province, Tien Lu, Phu Cu District)**

The road was evaluated as rank B. However, the damage of the reinforced deck slab of the Quan Thu bridge was observed, the bridge constructed at near Km 5+000 was degraded to rank E. This was the place where an impact by the wheel load came directly and it was supposed that the jump of traveling vehicles caused by the subsidence of the backside of bridge abutment was the direct factor.

There was a hole in reinforced concrete deck slab, and it made difficult for vehicle traffic even at the time of the site survey. It needed to be repaired as soon as possible to prevent further damages.



**Figure 4.3-19 Damaged Deck Slab at Quan Thu Bridge, Road Surface of the Backside of Abutment**

**(14) Road No.195, 201, 204, SPL III (Hung Yen province, Phu Cu, Khoai Chau, Kim Dong district)**

The road was evaluated as rank B. Large potholes were observed partially near Km 4+000, and it was considered dangerous for vehicle traffic, therefore the sub-project was graded down to rank E.



**Figure 4.3-20 General View and Rutting near Km 4+000**

(Left: General View, Right: Rutting Section)

**(15) Road from Do Trap bridge to Hai Ninh Coast, SPL V(Thanh Hoa province, Tinh Gia district)**

The road was evaluated as rank B. However, the damage with the big pothole was observed near Km 1+100, Km 6+450 and it was considered dangerous for vehicle traffic. Hence, the sub-project was graded down to rank E.





**Figure 4.3-21 Damage of the Neighborhood at Km 1+100, Km 6+450**  
(Left: Km 1+100, Right: Km 6+450)

**(16) Song Giang Bridge, SPL IV (Nghe An province, Thanh Chuong district)**

**(17) Ta Rut - A Vao Road, SPL IV (Quang Tri province, Dakrong district)**

**(18) Urban Road Ea Soup Town, SPL II (Dac Lak province, Ea Sup district)**

The situation of above three (3) sub-projects are explained in “4.3.1 Damages Affected by Disasters”

**(19) Road D22, SPL IV (Dac Lak province, M'Drak district)**

The road was evaluated as rank B. However, the damage with big pothole was observed at near Km 0+700 and Km 0+850 and it was considered dangerous for vehicle traffic. Hence, the sub-project was graded down to rank E.



**Figure 4.3-22 Damaged Road Surface near Km 0+700, Km 0+850**  
(Left: Km 0+700, Right: Km 0+850)

**(20) Provincial Road No.765, SPL II, III (Ba Ria Vung Tau province, Chau Duc district)**

The road was evaluated as rank B. However, deep rutting with pothole was observed near Km 7+700 and it was considered dangerous for vehicle traffic. Hence, the sub-project was graded down to rank E.



**Figure 4.3-23 Damage of the Neighborhood at Km 0+700**

**4.3.4 Alteration**

As a result of the site survey, there are no altered facilities.



## Chapter 5 Operation, Maintenance and Management of the Facilities

### 5.1 Conditions of Operation, Maintenance and Management of the Facilities

#### 5.1.1 Operation

There are no operation activities for the facilities constructed under the road sector sub-projects.

#### 5.1.2 Maintenance

The maintenance of SPL roads are conducted by companies or state-owned organizations under DOT, DARD (Department of Agriculture & Rural Development), District People's Committee (DPC), City People's Committee (City PC) and Town People's Committee (TPC). The number of sub-projects by each maintenance organization is shown in Table 5.1-1:

**Table 5.1-1 Numbers of Sub-Projects by Maintenance Organization**

Organization	DOT	DARD	DPC	City PC	TPC	Other*	Total
No. of Sub-projects	295	1	180	14	19	9	518

\*: "Other" includes on-going sub-projects and untransferred projects from project owners.

The established year of each organization varies, some were established in 1961. According to the survey, total of 261 (approximately 50 % of all) organizations were established before 2000.

Regarding annual maintenance and financial plans, total of 485 sub-projects (94%) answered as they have plans, as shown in Table 5.1-2.

**Table 5.1-2 Number of Sub-Projects Having Annual Maintenance and Financial Plans**

Annual Maintenance and Financial Plans	Have plans	Don't have Plans	No answer	Other	Total
No. of Sub-projects	485	3	0	30	518

According to the questionnaire, 56 sub-projects (equivalent to 11%) answered that they conducted major repair works. The details are shown in Table 5.1-3.

**Table 5.1-3 Numbers of Sub-Projects Conducted Major Repair Works**

Large-Scale Repair Work	Pavement	Widening	Embankment	Re-construction	Ongoing & Not answer	Total
No. of Sub-projects	15	5	1	35	462	518

According to the interview survey, questionnaire and survey form, the number of sub-projects that have executed large scale repair / small scale repair was 148 sub-projects. However, it seemed such records and information would not be maintained. Especially, when the person in charge changes, the data will be lost.

The contents of maintenance are as follows:

- Inspection (Normal inspection or Urgent inspection)
- Weeding
- Cleaning of side ditch
- Small scale repair (repair of potholes, shoulders and so on)
- Large scale repair (Normally it is not included in a regular maintenance, thus it will be dealt with a contract).

The maintenance work items (sample) are shown in Table 5.1-4.

**Table 5.1-4 Detail of Maintenance Work Items (Sample)**

No.	Work Items	Unit
1	Filling of shoulder and embankment, and , clean up slip soil.	m <sup>3</sup>
2	Hauling embankment material and remove spoil soil by damp truck 5 tons	m <sup>3</sup>
3	Demolish damaged pavement	m <sup>2</sup>
4	Repairing potholes	m <sup>2</sup>
5	Stone masonry for damaged slop protection	m <sup>3</sup>
6	Construction of foundation, slope and longitudinal ditches by masonry with cement mortar M75	m <sup>3</sup>
7	Repairing box culvert (excavation & backfilling, sand fill for foundation, concrete base, form work, reinforced concrete)	place
8	Repairing pipe culvert (excavation & backfilling, sand fill for foundation, concrete base, sealing joint)	place
9	Repairing inlet and outlet of culverts (excavation & backfilling, sand fill for foundation, concrete base, form work, reinforced concrete)	place
10	Weeding	m <sup>2</sup>
11	Cleaning side ditch	m <sup>2</sup>

The maintenance method of the facilities constructed under SPL is decided by a regular inspection. There is a case to cooperate with Commune People's Committee. However, frequency of inspection is not specified, and it varies depending on the OM/M organization. The frequency of inspection is summarized as follows:

- Inspect road conditions once a week
- Inspect road conditions once a week, or urgent inspection in case of emergency caused by typhoon / heavy rain
- Inspect road conditions once a month
- Inspect road conditions once in 2-3 months

### 5.1.3 Management

The management organizations on road maintenance are divided into five types i) DOT, ii) DARD, iii) DPC, iv) City PC and v) TPC. See more details in Table 5.1-5.

**Table 5.1-5 Number of Sub-Projects by Management Organizations**

Organization	DOT	DARD	DPC	City PC	TPC	Other	Total
Company	168	0	0	0	0	0	168
State	127	1	180	14	19	9	350
Total	295	1	180	14	19	9	518

Generally, under the management of DOT, OM/M was conducted by two (2) to three (3) maintenance companies according to the scale of facilities such as total length of a road.

States organizations that were in charge of maintenance differ from the department of PPC, the division of DPC/City PC/TPC and the commune under DPC. More details are explained in Chapter 5.2.1.

Some maintenance companies were found in 1961. However, according to the survey, total of 119 out of 168 companies were established before 2000.

The number of staffs in a maintenance company was usually more than that of a state organization. The numbers of sub-projects with more than 100 staffs in a maintenance company was 113 as shown in Table 5.1-6.

**Table 5.1-6 Number of Staffs of Maintenance Company and State Organization**

unit: numbers of sub-projects

No. of Staffs	< 10	11-100	>101	No Answer	No Staff	Total
Maintenance Company	8	43	113	4	0	168
State Organization	122	132	36	41	10	341
Total	130	175	149	45	10	509

Note: Not included eight (8) sub-projects which were ongoing and hadn't been handed over yet

The number of the maintenance companies and state organizations with maintenance equipments, such as bulldozer, grader, excavator, road roller, dump trucks and so on, was 157 and 95 respectively. This

shows that the capacity (manpower and equipment) of the maintenance companies was much larger than that of the state organizations.

Most of the maintenance companies have some branch offices in provinces with heavy equipments and some have mobile units with only the most basic equipments.

Due to limited volume of maintenance work, the main income sources of the most maintenance companies were construction of road and bridge, installation of warning signs, safety post, traffic safety facilities such as guard rail and so on.

## **5.2 Organization and System for Operation, Maintenance and Management of the Facilities**

### **5.2.1 Operation, Maintenance and Management Organization**

Implementation of a road sub-project is managed by the Project Owner (PO). After the completion of the sub-projects, the facilities are then handed over to each province. Then, a province transfers the facilities to OM/M organizations through DOT, DPC, City PC, TPC. The OM/M organizations conduct the management, operation, repair works, protection and so on in accordance with the contract or circular or degree.

The details of OM/M organization are shown in Table 5.2-1:

**Table 5.2-1 Breakdown of Operation, Maintenance and Management Organization**

State	Sub-projects	Company	Sub-projects
S1. Department of Transport (DOT)	14	C1. Joint Stock Company	156
S2. Road Management Division under DOT	75	C2.Limited Company	12
S3. Road & Water Management Division under DOT	28		
S4. Transport Management & Repair Center under DOT	9		
S5. Public Transport & Operation and Maintenance Center under DOT	4		
S6. Transport Management & Repair Enterprise under DOT	5		
S7. Irrigation Division under DARD	1		
S8. Urban Infrastructure & Economic Division under City PC/TPC	42		
S9. SPMU under DPC	5		
S10. Industry & Trade Division under DPC	139		
S11. Public transport Division, DPC	4		
S12. Volunteer Youth No.11, Thanh Chuong District under DPC	1		
S13. Commune	14		
Total	341	Total	168

Note: The difference between Joint Stock Companies and Limited Companies is whether offering of stock to the public or not. The former is offering and the latter isn't.

Some OM/M organizations are listed below:

**(1) Bac Kan province Boc Bo – Cong Bang Road**

OM/M organization was Road Management Division No.7

There was one team, which always visited the site and checked the condition of roads, then reported to OM/M office if any problems or damages. In case of a small damage, the site inspection team would repair by themselves. In case of a large damage, they would request DPC for allocation of fund to repair.

**(2) Bac Kan province Urban Road**

OM/M organization was Bac Kan Urban Works and Environment Joint Stock Company.

All the urban roads were inspected every week, and an urgent inspection was conducted during large storm and / or heavy rain. An inspection was also conducted when the company obtained information from the communes. If there was a small damage, the company will repair it based on the annual contract with Bac Kan PPC. If there was a large damage, the company would estimate the cost, then, reported to Bac Kan PPC in order to apply for the repair fund.

**(3) Yen Bai province Yen Bai - Khe Sang Road, Bac Giang province Thang - Vat Road**

OM/M organization was Road Management Division.

One team visited to the site every week to check the current conditions of the roads and to report to the OM/M office. If there was a large damage, they would submit the report and estimate the cost for repair.

**(4) Quang Ninh province Duc Chung – An Sinh Road, Bac Giang province Bo Ha - Mo Trang Road, Cao Bang province Trung Khanh - Kham Thanh - Phong Nam Road, Lang Son province Na Sam - Na Hinh Road**

OM/M organization was Industry and Trade Department of the district. The department made a contract with one of the OM/M teams and it conducted annual repair of the road including land clean, weeding, the side-ditch cleaning and so on. The team was usually conducting minor repairs of the road. In case of a natural disaster, the department obtained the information from people living along the road and the team would conduct the repair.

**(5) Nam Dinh province, Xuan Truong district:**

Every week, the staffs of the Industry and Trade Department of Xuan Truong district visited the site and checked the conditions of the road.

**(6) Ha Nam province, Thanh Liem district**

Every week, the staffs of the Industry and Trade Department of Thanh Lien district visited the site and checked the conditions of the road.

**(7) Thanh Hoa province Tinh Gia district**

Once a month, Road Management Division of Tinh Gia district visited the site and checked the conditions of the road.

**(8) Nghe An province Tuong Duong district**

From each commune, Industry and Trade Department (ITD) of the district received information on roads with any damages. After that the staffs of ITD would visit the site and check the conditions.

**(9) Hai Phong province Vinh Bao district**

Vinh Bao Road Management Division together with all communes using the road checked the condition of the road and reported to Vinh Bao Road Management Division if any damages. In addition, the staffs of Vinh Bao Road Management Division conducted site visit every week and checked on the damaged parts.

### **5.2.2 Operation, Maintenance and Management System**

There are some types of the OM/M organization. They depend on each category of roads such as province road, district road, city / town road, commune road, determined by each province. The OM/M organizations are categorized as follows:

- Regarding the OM/M companies established under DOT such as Joint Stock Company and Limited Company, a contract with DOT or DPC is usually made for regular maintenance of the road. DOT requests the fund for the OM/M as the annual road budget to the provincial government.
- The state organizations are divided into five types such as i) DOT, ii) DARD, iii) DPC, iv) City PC / TPC and v) Commune. They are subdivided into 13 types as shown in Table 5.2-1, and the most popular OM/M organization of roads constructed under SPL Projects is “Industry & Trade Division” under DPC. However, the state organizations rarely conduct the OM/M by themselves. Most of them entrusts the works to small scale contractors who provide works crew or worker temporally.
- Sub-Project Management Unit (SPMU) for road maintenance is under DPC.
- The maintenance organization under City PC and TPC is “Urban Infrastructure & Economic Division.”
- Concerning the roads constructed under SPL V, they are still under warranty period, so handing

over the facilities to PO has not been completed yet. The warranty period is about one to two years after the completion of construction which highly depends on the PPC Decision to assign the OM/M organization.

**Table 5.2-2 Number of Staffs in each OM/M Organization**

(The meaning of S1-S13, C1-C2 is shown in Table 5.2-1)

unit: numbers of sub-projects

State Organizations	<10	11-100	>101	NA	Total	Company	<10	11-100	>101	NA	Total
S1.	5	9	0	0	14	C1.	8	37	109	2	156
S2.	0	34	22	19	75	C2.	0	6	4	2	12
S3.	28	0	18	10	28						
S4.	0	9	0	0	9						
S5.	0	4	0	0	4						
S6.	0	5	0	0	5						
S7.	1	0	0	0	1						
S8.	10	27	4	1	42						
S9.	0	5	0	0	5						
S10.	104	16	0	19	139						
S11.	0	4	0	0	4						
S12.	0	1	0	0	1						
S13,*	2	0	0	2	4						
Total	122	132	36	41	331	Total	8	43	113	4	168

\*: There are ten (10) sub-projects which do not have staff in S13: Commune

Table 5.2-2 shows:

- The state organizations have less staffs (worker) than that of the company.
- “Industry & Trade Division” under DPC occupies the biggest number of the OM/M organizations for the roads constructed under the SPL Projects. However, the number of staff is small, almost less than 10 staffs.
- Most of the “Communes” don’t have any staffs engaged in the OM/M. The road maintenance work is often conducted by beneficiaries in each commune.
- The company and the state organization which have more than 100 staffs take charge of the OM/M of 113 (22%) and 36 (7%) sub-projects, respectively.

## **Chapter 6 Impact and Effectiveness of SPL Projects**

### **6.1 Sub-Projects with Less Effectiveness**

#### **6.1.1 Sub-Projects with Increased Traffic Accidents**

The number of traffic accidents before and after improvement or new construction of the roads under SPL Projects was confirmed from the interview survey (the questionnaire / the survey form). The result from 228 replies is shown below:

The total replies	228 sub-projects
The number of accidents was decreased	57 sub-projects
The number of accidents was not changed	70 sub-projects
The number of accidents was increased	101 sub-projects

Around a half of the sub-projects, respondents commented that "traffic accident increased". It is considered that the reasons for this are the speed of a vehicle accelerated by i) improvement of vertical slope / horizontal section / road alignments and ii) improvement of the road surface conditions. The main problem of the increased accident is not only to threaten life, but also to reduce the effectiveness of the sub-project. Due to traffic hindrance and congestion, traffic speed and volume will decrease, thus function of the road as a whole will also be degraded.

### **6.2 Sub-Projects with Impact on the Regional Development Plan**

There is no sub-project which gave the impact on the Regional Development Plan.



## **Chapter 7 Subjects to be Discussed**

### **7.1 Operation**

There is no particular comment on the operation of road sector.

### **7.2 Maintenance**

#### **7.2.1 Unevenness in the Inspection / Judgment on Damage**

Having current conditions of the facilities is important for the operation, maintenance and management (OM/M of them). The OM/M organizations do not necessarily execute the task of OM/M based on quantitative criteria and they actually did maintenance works when the necessity arose. The frequency of inspection and / or patrol depends on each OM/M organization.

OM/M organizations seemed to make effort to conduct the maintenance of roads with insufficient staffs. However, looking at the OM/M of all the facilities constructed under the SPL Projects, considering all the facilities constructed under SPL project as a whole, the following points were found to be studied.

- Frequency of inspection and / or patrol tends to varied among the OM/M organizations.
- Methods of maintenance and repair were different among the OM/M organizations.
- Neither standardized manual nor guideline on the inspection and patrol, and maintenance and repair

#### **7.2.2 Traffic Volume of Facilities**

The rate of reply on the traffic volume to the interview survey using questionnaire and the survey form was around 60%. Some of the replies mentioned a big traffic volume, however, the result of the site survey did not show such volume. This fact implies following weakness.

- There is no standardized manual and /or guideline on the periodical traffic survey
- The accuracy of the answered data on traffic volume varies among the organizations.

Survey data on the traffic volume is important indicator on maintenance and repair. The periodical survey of traffic volume gives PPC and DOT the following benefits;

- The data can be utilized for any kind of road improvement projects including further SPL Projects.
- The data on the traffic volume can be utilized to make more realistic plan for the maintenance and management of the facilities.

### **7.2.3 Overload of Vehicles**

It was confirmed that there were a lot of OM/M organizations worried about the damages of road caused by overloaded trucks. The large pothole and rutting were supposed to be caused by the overloaded vehicle as reported in Chapter 4.3.3. It was surely overloads that caused such damages provided that the roads (especially sub-grade and embankment) were properly constructed as reported by the OM/M organizations.

### **7.2.4 Sub-Projects with Progressive Damages**

As explained in Chapter 4.3.3, the roads in rank C and D needed to be urgently repaired by PPC, DOT and / or DPC, based on the reports prepared by the OM/M organizations.

## **7.3 Management**

### **7.3.1 Significance of the Road**

Concerning SPL Projects, it seemed that the significance of roads was not considered as a management factor. All the roads constructed under SPL Projects are equally important for local people. However, for instance, the district road which links communes in the mountainous area has a function as the community road, and such nature of road is different from the significance of road shown below:

- The evacuation route at the time of disaster
- Transportation route for goods during emergency
- The road with an important lifeline (underground facilities such as electricity, water supply, etc.)
- The road connected with a railway station, and /or sea ports being terminals of river
- The road with high traffic volume or with a possibility on an increase

Consequently, the road has an administrative meaning to conduct an important role at the time of emergency or disaster. No distinction was made presently between community roads and the roads mentioned above.

### **7.3.2 Conditions on Grasping Road Facilities by Operation, Maintenance and Management Organizations**

OM/M organizations were not necessarily aware of the current conditions of the road facilities. It seemed that the persons in charge of road facilities such as bridge, culvert, pavement, etc. exclusively grasped their conditions. Therefore, there was the risk that grasping the conditions of the facilities would be insufficient when the persons in charge would be transferred.

## **7.4 Organization**

Any problem was not observed concerning the system of the organization.

## **7.5 Sub-Project Implementation**

### **7.5.1 Roads which Have the Problem of Continuity**

It had been reported that access roads (e.g. the existing province / district roads) to the starting points or ending points of roads constructed under SPL Projects were not maintained well and it was difficult for vehicles to run smoothly and took time to reach the newly constructed roads. So it is time-consuming to access the constructed section under SPL.

Moreover, as explained in Chapter 4.3.2, there was the case that the delay of construction of a bridge under Vietnamese fund made difficult for vehicles to access the road constructed under the SPL. It was the problem of continuity. It is preferable to construct a road and a bridge simultaneously, however, the delay of construction work due to the failure to prepare the budget which was initially secured was reported. To minimize the influence of such a problem in the future, PPC and DOT should prepare the proper development plan including prioritization of road construction and improvement projects and financial plan for the rural road system.

### **7.5.2 Sub-Projects with Increased Traffic Accidents**

As explained in Chapter 6.1.1, nearly half of the replies to the questionnaire reported that “traffic accidents had increased”. The PO is required to give the design consultants the instruction to consider the safety instruments such as guardrails, markers, warning signs, etc. in the detailed design and the consultants employed by MPI for the SPL Project implementation (hereinafter referred to as “the Consultant”) should control these items to be installed in the road facilities.

### **7.5.3 Sub-Projects in the Area with Natural Disaster**

As explained in Chapter 4.3.1, the areas listed in table 4.3-2 have high risk on the occurrence of natural disasters, therefore, it is necessary to strengthen the patrol especially during rain. When designing a project, it is necessary for PO to recommend the design consultant to consider the change of the routes and / or slope protection in order to secure the road especially in the chronic disaster areas. The Consultants must assist the POs on such recommendations regarding the matter.

### **7.5.4 Sub-Projects with Bottlenecks**

As explained in Chapter 4.3.2, the roads with the SPL Projects with bottlenecks have the possibility to cause frequent congestions in the near future if the traffic continues to increase. It is recommended to set the criteria on the selection of the sub-projects favorable for the scheme to improve the places where the bottleneck exists in consideration for the PO who will prepare the sub-project with such scheme.

## **7.6 Others**

The sub-project of “Province Road 675” in Gia Lai province had initially planned to implement. However, it was relocated by the sub-project of “Inter-commune Road of Eastern of Ben Mong Bridge” due to the implementation of private sector hydropower project in neighboring area. Since the sub-project of “Province Road 675” still remains in the sub-project list of MPI, it should be confirmed about said sub-project with MPI.

## **Chapter 8 Sustainability of SPL Projects**

### **8.1 Project Planning and Design**

#### **8.1.1 Selection of Road Sub-Projects that Continuity of Road can be Secured**

As mentioned in Chapter 4.3.2.2 and 7.5.1, continuity of road should be secured. It is necessary to include the evaluation item on “the continuity of projected road should be secured” in the criteria to select to select sub-projects in the future SPL Projects.

#### **8.1.2 Bottleneck Improvement**

Bottleneck sections were confirmed during the site survey. Currently, traffic congestions were not observed at the bottleneck sections. However if the traffic volume continues to increase in the near future, the bottleneck may affect the effects of the road sub-project.

Most of the bottleneck sections were previously constructed bridges in the past. Reconstruction of the bridges necessitates big amount of capital investment compared with that of a road. Therefore it is quite difficult to implement the construction of a road and a bridge at the same time. It is also difficult to execute the planned reconstruction of those bridges in the rural areas. The SPL fund is limited hence some of the bridges were not improved nor reconstructed in conformity with the construction of respective connected roads. It is consequently necessary to prepare the sub-projects, which do not exclude the related bridge based on the estimated future traffic volume. It is recommended to set the criteria on the selection of the sub-projects favorable for the scheme to improve the places where the bottleneck exists in consideration for the PO who will prepare the sub-project with such scheme.

### **8.2 Facility Construction**

#### **8.2.1 Construction of Gravel Road**

Number of sub-projects applied gravel pavement to the road was 20, but most of them were confirmed in bad conditions during the site survey. The following reasons are considered; i) Surface gravels are washed out and overflowed water runs over the road surface when the drainage system is not functioning properly. ii) Ruts and potholes are made when water is collected in uneven places and iii) Once a small damage occurs, it can be easily extended by passages of vehicles and even motorbikes. Therefore, when applying the gravel pavement, it is necessary to carefully design and construct a drainage system considering detail site condition and to take into consideration the maintenance of the gravel road.

### **8.3 Administrative System of the Constructed Facilities**

There was no problem on the administrative system of the constructed facilities.

## **8.4 Asset Management System**

### **8.4.1 Prioritization of Roads**

As explained in Chapter 7.3.1, following are the types of road with significance.

- The evacuation route at the time of disaster
- Transportation route for goods during emergency
- The road with an important lifeline (underground facilities such as electricity, water supply, etc.)
- The road connected with a railway station, and /or sea ports being terminals of river
- The road with high traffic volume or with a possibility on an increase

It is important to manage and maintain regularly the roads which may play important roles at times of emergency and catastrophes. If there are a number of roads with considerable damages, the roads with significance should be selected for the maintenance and repair under the budget constraint.

### **8.4.2 Necessity of the Inspection Manual**

The objectives of the inspection are i) to grasp the current condition of the road for better management, ii) to discover earlier damages on the roads to prevent negative influence on the safety and the usability, iii) to take appropriate measures to secure safety and smooth traffic, and in addition to these, iv) to carry out the continuous and effective inspection and systematic maintenance and reinforcement of the facilities by storing basic information which enable the effective maintenance.

The evaluation based on quantitative indicators will contribute the maintenance of the whole facilities. The current inspection and evaluation methods depend on an individual for the results of them and it brings the variations from the viewpoint of the SPL Projects. Therefore the inspection manual should be prepared for at least following items:

- Frequency and degree of the inspection
- Inspection items (pavement, slope stability, structures, etc.)
- Type of damage and method to judge it
- Methods of maintenance, repair and rehabilitation

### **8.4.3 Execution of the Traffic Survey and Preparation of the Traffic Survey Manual**

As explained in Chapter 7.2.2, a traffic volume survey should be carried out regularly according to the rule shown below set by a competent organization

- At least once a year ( it is preferable to conduct twice a year; farming season and off season)
- Type of vehicles should be recorded
- The traffic volume should be recovered by pcu in accordance with TCVN4054.

It is also necessary to prepare the manual and guide for carrying out the traffic volume survey.

#### 8.4.4 Road Protection against Overloaded Trucks

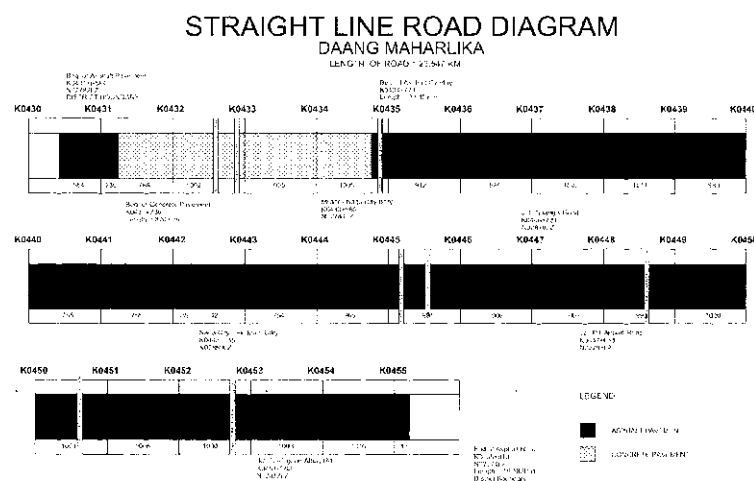
As mentioned in Chapter 7.2.3, the damage of road caused by overloaded trucks is very serious. It is generally considered that the damage of road surface will increase in proportion to approximately four (4) times of the axel load when it exceeds the design load on the road and the overload accelerates the damage of the road. In other words, when the weight of the vehicle becomes double, the load to the road becomes eight (8) times. Therefore, it is necessary to check overloaded vehicles, and to install devices which restrict them. Following countermeasures against the overloaded trucks are proposed:

- To punish the overloaded vehicle drivers severely under cooperation with other related authorities
- To install car stops to restrict the height and width of vehicles at the starting and ending points in order to compel the oversized vehicles to pass the roads.
- To install toll gates to collect maintenance fee.

#### 8.4.5 Straight Line Diagram

Straight line diagram is the effective tool for preparing road inventory to manage the roads. It is possible to manage all installations in the road by indicating the kilometer post, and this is quite useful to understand the progress of the sub-project. It also enables to show the quantities of installations which are the basic information of financial asset. Following are the example on the items to be recorded and the Straight Line Diagram

- Positions of origin-destination and location of installations
- Type of pavement and type of structure
- To record the construction year and the repair year by every sections
- To put colors in completed maintenance sections and the structures, and to record their dates.



**Figure 8.4-1 Sample of Straight Line Diagram**

## **Asset Survey for Small Scale Pro-Poor Infrastructure in Vietnam**

### **Road Sector Report**

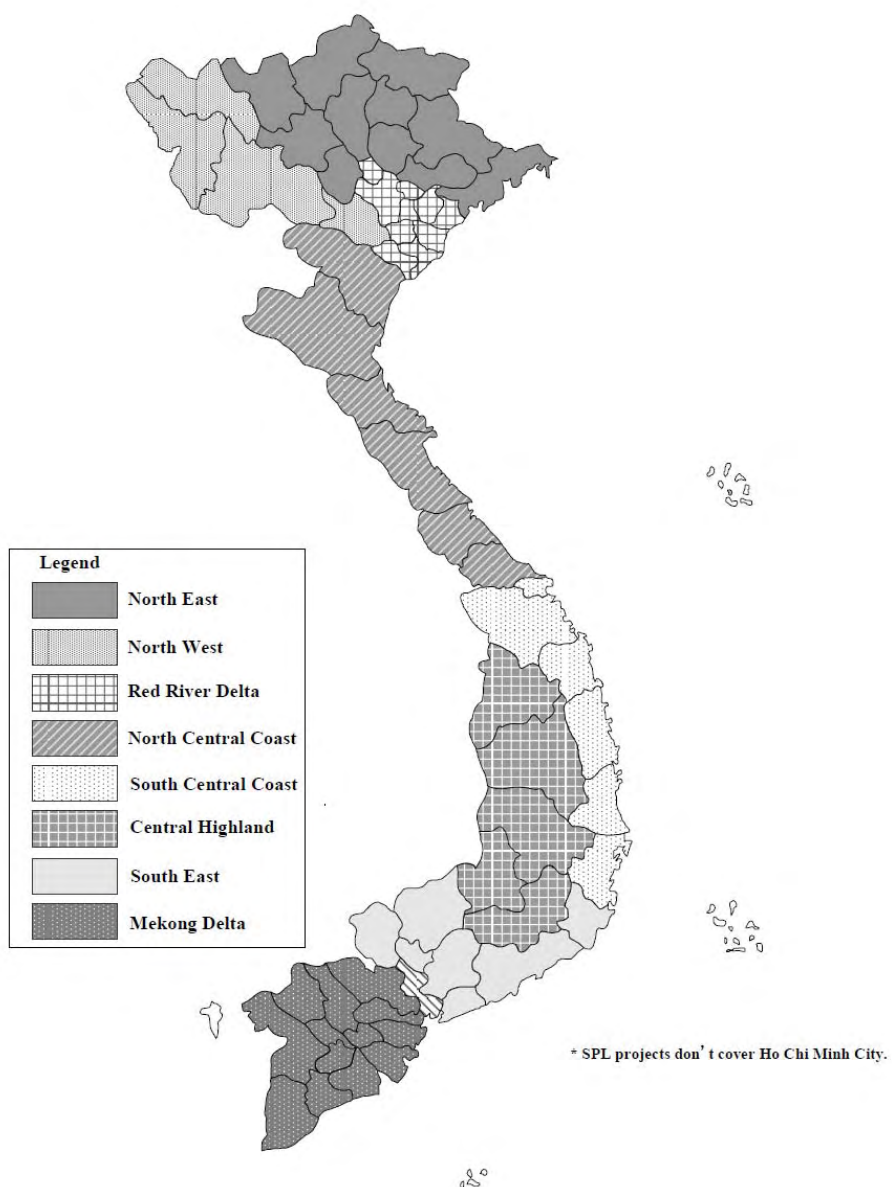
#### **Appendix**

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## Appendix 1.1 Region and Provinces

Region	Province
North East	Ha Giang
	Cao Bang
	Lao Cai
	Tuyen Quang
	Bac Kan
	Lang Son
	Yen Bai
	Thai Nguyen
	Phu Tho
	Bac Giang
	Quang Ninh
North West	Lai Chau
	Dien Bien
	Son La
	Hoa Binh
Red River Delta	Vinh Phuc
	Bac Ninh
	Ha Noi
	Hai Duong
	Hung Yen
	Hai Phong
	Thai Binh
	Ha Nam
	Nam Dinh
	Ninh Binh
North Central Coast	Thanh Hoa
	Nghe An
	Ha Tinh
	Quang Binh
	Quang Tri
	Thua-Thien Hue
South Central Coast	Da Nang
	Quang Nam
	Quang Ngai
	Binh Dinh
	Phu Yen
	Khanh Hoa
Central Highland	Kon Tum
	Gia Lai
	Dac Lak
	Dak Nong
	Lam Dong
South East	Ninh Thuan
	Binh Thuan
	Binh Phuoc
	Dong Nai
	Ba Ria Vung Tau
	Binh Duong
	Tay Ninh
Mekong Delta	Long An
	Tien Giang
	Ben Tre
	Dong Thap
	Vinh Long
	Tra Vinh
	An Giang
	Can Tho
	Hau Giang
	Soc Trang
	Kien Giang
	Bac Lieu
	Ca Mau



## Appendix 1.2 Sub-Project (Infrastructure) List

(1/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
1	MD	An Giang	NA	Road	SPL I	Provincial Road No.956
2	MD	An Giang	NA	Road	SPL I	Le Hong Phong Street
3	MD	An Giang	NA	Road	SPL II	Provincial Road No.941
4	MD	An Giang	Tri Ton	Road	SPL III	Road 17
5	MD	An Giang	Phu Tan	Electricity	SPL I	Hoa Lac-Phu Hiep Commune Electric
6	MD	An Giang	Phu Tan	Electricity	SPL I	Phu Thanh-Phu Long Electric Network
7	MD	An Giang	An Phu	Electricity	SPL I	Da Phuoc-Phuoc Quan Electric Network
8	MD	An Giang	An Phu	Electricity	SPL I	Khanh Binh-Nga 3 Dinh Electric Network
9	MD	An Giang	An Phu	Electricity	SPL I	Nhon Hoi-Ca Coi Electric Network
10	MD	An Giang	Thoai Son	Electricity	SPL I	Nui Sap Electric Network
11	MD	An Giang	Thoai Son	Electricity	SPL II	Vinh Thang-Vinh Khanh Commune Electric Line
12	MD	An Giang	Phu Tan	Electricity	SPL II	Binh Thanh Dong-Tay Commune Electric Line
13	MD	An Giang	An Phu	Electricity	SPL II	15-22KV, Phuoc Hung-Chua Co-Cau 9
14	MD	An Giang	Chau Thanh	Electricity	SPL II	Vinh Loi-Vinh Thuan Electric Network
15	MD	An Giang	Cho Moi	Electricity	SPL II	Long Thuong-Kien An Commune Electric Line
16	MD	An Giang	Cho Moi	Electricity	SPL II	15-22KV Kien An
17	MD	An Giang	Thoai Son	Electricity	SPL III	Vinh Khanh-Kenh Dao Commune Electric Line
18	MD	An Giang	Phu Tan	Electricity	SPL III	Kenh K16-Phu Thanh Commune Electric Line
19	MD	An Giang	An Phu	Electricity	SPL III	Nga 3 Dinh Ca Coi Commune Electric Line
20	MD	An Giang	Phu Tan	Electricity	SPL III	Phu An-Phu Xuan Commune Electric Line
21	MD	An Giang	Tri Ton	Water Supply	SPL III	Tri Ton WSS
22	SE	Ba Ria Vung Tau	NA	Road	SPL II	Road No.329
23	SE	Ba Ria Vung Tau	Chau Duc	Road	SPL II SPL III	Provincial Road No.765 Road 765
24	SE	Ba Ria Vung Tau	Long Dat	Electricity	SPL III	Long Dat Distric Electric Line
25	SE	Ba Ria Vung Tau	Chau Duc	Electricity	SPL III	Chau Duc Distric Electric Line
26	SE	Ba Ria Vung Tau	Xuyen Moc	Electricity	SPL III	Xuyen Moc Distric Electric Line
27	SE	Ba Ria Vung Tau	Tan Thanh	Electricity	SPL III	Tan Thanh Distric Electric Line
28	NE	Bac Giang	Bac Giang City	Road	SPL I	Urban Road of Bac Giang, 10 Roads
29	NE	Bac Giang	Hiep Hoa	Road	SPL I	Road No.296 (Thang - Vat)
30	NE	Bac Giang	Yen The	Road	SPL I SPL I	Road No.268 (Bo Ha - Mo Tang) Road No.268 (Mo Tang - Bo Ha)
31	NE	Bac Giang	Bac Giang City	Road	SPL II	Bac Giang Town Road, 2 Streets
32	NE	Bac Giang	NA	Road	SPL II	Vat Bridge
33	NE	Bac Giang	NA	Road	SPL II	Provincial Road No.284
34	NE	Bac Giang	Bac Giang City	Road	SPL II	Bac Giang Town Road, 3 Streets
35	NE	Bac Giang	Son Dong	Road	SPL III SPL V	Yen Dinh-Thanh Luan Road Yen Dinh - Thanh Luan Road
36	NE	Bac Giang	Son Dong	Electricity	SPL I	Tuan Dao Commune Electric Commune
37	NE	Bac Giang	Yen The	Electricity	SPL I	Tuan Soi Commune Electric Commune
38	NE	Bac Giang	Hiep Hoa	Electricity	SPL I	Danh Thang Commune Electric Commune
39	NE	Bac Giang	Yen Dung	Electricity	SPL I	Dong Phuc Commune Electric Commune
40	NE	Bac Giang	Luc Ngan	Electricity	SPL I	Phuong Son Commune Electric Commune
41	NE	Bac Giang	Luc Nam	Electricity	SPL I	Kham Lang Commune Electric Commune
42	NE	Bac Giang	Luc Nam	Electricity	SPL I	Dan Hoi Commune Electric Commune
43	NE	Bac Giang	Yen The	Electricity	SPL I	Tam Tien Commune Electric Commune
44	NE	Bac Giang	Yen The	Electricity	SPL I	Canh Nau Commune Electric Commune
45	NE	Bac Giang	Lang Giang	Electricity	SPL I	Quang Thinh Commune Electric Commune
46	NE	Bac Giang	Tan Yen	Electricity	SPL I	Lien Son Commune Electric Commune
47	NE	Bac Giang	Yen Dung	Electricity	SPL I	Neo Town Commune Electric Commune
48	NE	Bac Giang	Hiep Hoa	Electricity	SPL I	Huong Lam Commune Electric Commune
49	NE	Bac Giang	Yen The	Electricity	SPL II	Dong Vuong Commune Electric Line
50	NE	Bac Giang	Luc Ngan	Electricity	SPL II	Tan Moc Commune Electric Line
51	NE	Bac Giang	Son Dong	Electricity	SPL II	An Chau Commune Electric Line
52	NE	Bac Giang	Viet Yen	Electricity	SPL II	Van Ha Commune Electric Line
53	NE	Bac Giang	Luc Nam	Electricity	SPL II	Yen Son Commune Electric Line
54	NE	Bac Giang	Luc Nam	Electricity	SPL III	Truong Son Commune Electric Line
55	NE	Bac Giang	Yen Dung	Electricity	SPL III	Tan Lieu Commune Electric Line
56	NE	Bac Giang	Luc Ngan	Electricity	SPL III	Tam Lap Commune Electric Line
57	NE	Bac Giang	Son Dong	Electricity	SPL III	Que Son Commune Electric Line
58	NE	Bac Giang	Luc Nam	Electricity	SPL V	Truong Son Commune Electric Line
59	NE	Bac Giang	Son Dong	Water Supply	SPL V	An Chau Town WSS

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(2/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
60	NE	Bac Giang	Luc Ngan	Irrigation	SPL V	Khuon Than Reservoir
61	NE	Bac Kan	Bac Kan Town	Road	SPL I	Urban Road in Bac Kan Town
62	NE	Bac Kan	Na Ri	Road	SPL I SPL II	Road No.256 (km19-km38) Road No.256
63	NE	Bac Kan	NA	Road	SPL I	Pho Moi Road
64	NE	Bac Kan	Ba Be	Road	SPL II	Road No.258, Bach Thong-Ba Be Road
65	NE	Bac Kan	Pac Nam	Road	SPL II SPL III	Boc Bo-Cong Bang Road Boc Bo-Cong Bang Road
66	NE	Bac Kan	Na Ri	Road	SPL III	Quang Phong-Dong Xa Road
67	NE	Bac Kan	Pac Nam	Road	SPL III	Ban Khua - Ban Man Road
68	NE	Bac Kan	Bac Kan, Cho Moi	Road	SPL IV	Nong Ha - Thanh Van Road
69	NE	Bac Kan	Ngan Son	Road	SPL IV	Van Tung- Thuan Mang Road
70	NE	Bac Kan	Pac Nam	Road	SPL V	Cong Bang - Co Linh Road
71	NE	Bac Kan	Cho Don	Road	SPL V	Bang Lung - Dai Sao Road
72	NE	Bac Kan	Na Ri	Electricity	SPL I	Kim Lu-Na Ri Commune Electric Line
73	NE	Bac Kan	Cho Don	Electricity	SPL II	6 Communes in Cho Don Town Electric Line
74	NE	Bac Kan	Cho Don	Electricity	SPL III	Electric Network in Southern of Cho Don Distric
75	NE	Bac Kan	Cho Don	Electricity	SPL III	Phuong Vien-Ra Ban Commune Electric Line
76	NE	Bac Kan	Pac Nam	Electricity	SPL V	Pac Nam Commune Electric Network
77	NE	Bac Kan	Cho Moi	Water Supply	SPL IV	Yen Han WSS
78	NE	Bac Kan	Pac Nam	Irrigation	SPL IV	Phieng Luong Irrigation System
79	NE	Bac Kan	Cho Don	Irrigation	SPL IV	Cho Don Distric Irrigation System
80	NE	Bac Kan	Cho Moi	Irrigation	SPL V	Cho Moi Irrigation System
81	MD	Bac Lieu	Bac Lieu Town	Road	SPL I SPL II	Hiep Thanh - Xiem Can Road Hiep Thanh - Xiem Can Road
82	MD	Bac Lieu	Vinh Loi	Road	SPL III	National Road No.1A-Chau Thoi Road
83	MD	Bac Lieu	Hong Dan	Road	SPL IV	Xeo Quao - Thong Nhat Road
84	MD	Bac Lieu	Hong Dan	Road	SPL V	Thong Nhat Road No II
85	MD	Bac Lieu	Gia Rai	Electricity	SPL I	Phong Thanh Dong Commune Electric
86	MD	Bac Lieu	Vinh Loi	Electricity	SPL II	Chau Thoi Commune Electric Line
87	MD	Bac Lieu	Vinh Loi	Electricity	SPL III	Vinh Thinh Commune Electric Line
88	MD	Bac Lieu	Bac Lieu Town	Electricity	SPL III	Vinh Trach Commune Electric Line
89	MD	Bac Lieu	Hong Dan	Electricity	SPL III	Vinh Phu Tay Commune Electric Line
90	MD	Bac Lieu	Hong Dan	Electricity	SPL III	Ninh Hoa Commune Electric Line
91	MD	Bac Lieu	Hong Dan	Water Supply	SPL V	Ngan Dua WSS
92	MD	Bac Lieu	Vinh Loi	Irrigation	SPL V	Irrigation in 30/4 Area of Chua Phat
93	RRD	Bac Ninh	Bac Ninh City	Road	SPL I	Urban Road (Bac Ninh Town)
94	RRD	Bac Ninh	Tam Giang	Road	SPL I	Cho - Tam Giang Road
95	RRD	Bac Ninh	Gia Binh	Road	SPL I	Lang Ngan - Van Thai Road
96	RRD	Bac Ninh	Que Vo	Road	SPL I	Road No.291 (Pho Moi)
97	RRD	Bac Ninh	Bac Ninh City	Road	SPL II	Central Road in Bac Ninh Town
98	RRD	Bac Ninh	NA	Road	SPL II	Road No.270, Tien Son
99	RRD	Bac Ninh	NA	Road	SPL II	Road No.286
100	RRD	Bac Ninh	Gia Binh, Luong Tai	Road	SPL II SPL III	Bach Mon-Lac Ve Road Bach Mon-Lac Ve Road
101	RRD	Bac Ninh	Tien Du	Road	SPL III	Provincial Road No.280 (Nui Dong Binh, Thua-C.Giang)
102	RRD	Bac Ninh	Yen Phong	Electricity	SPL I	Yen Phong Electric Line
103	RRD	Bac Ninh	Yen Phong	Electricity	SPL I	Phong Khe Electric Line
104	RRD	Bac Ninh	Gia Binh	Electricity	SPL I	Giang Son Electric Line
105	RRD	Bac Ninh	Que Vo	Electricity	SPL II	Pho Moi Electric Network
106	RRD	Bac Ninh	NA	Electricity	SPL II	Van Tuong Commune Electric Commune
107	RRD	Bac Ninh	Luong Tai	Electricity	SPL II	Trung Xa Commune Electric Commune
108	RRD	Bac Ninh	NA	Electricity	SPL II	Vu Ninh Commune Electric Commune
109	RRD	Bac Ninh	Thuan Thanh	Electricity	SPL II	Ho Town Commune Electric Commune
110	RRD	Bac Ninh	Luong Tai	Water Supply	SPL III	Luong Tai WSS
111	MD	Ben Tre	NA	Road	SPL I SPL I SPL II	Provincial Road No.884 Provincial Road No.884 Provincial Road No.884
112	MD	Ben Tre	Ba Tri	Road	SPL III	Provincial Road No.885
113	MD	Ben Tre	Binh Dai	Road	SPL IV	Provincial Road No.883
114	MD	Ben Tre	Thanh Phu	Electricity	SPL I	An Diem Electric Network
115	MD	Ben Tre	NA	Electricity	SPL II	Con Linh Commune Electric Network

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(3/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
116	MD	Ben Tre	Cho Lach	Electricity	SPL III	Phu Da Commune Electric Line
117	MD	Ben Tre	Chau Thanh	Electricity	SPL III	Con Tien Loi Commune Electric Line
118	MD	Ben Tre	Binh Dai	Electricity	SPL III	Long Hoa Commune Electric Line
119	SCC	Binh Dinh	Binh Dinh City	Road	SPL I	Urban Road (Tang Bat Ho Road)
120	SCC	Binh Dinh	Binh Dinh City	Road	SPL I	Urban Road (Ngo Gia Tu Road, Binh Dinh Town)
121	SCC	Binh Dinh	Binh Dinh City	Road	SPL I	Nguyen Hue A Road
122	SCC	Binh Dinh	NA	Road	SPL II	Quy Nhon - Song Cau Road
123	SCC	Binh Dinh	NA	Road	SPL II	Kien My Bridge
124	SCC	Binh Dinh	Phu My	Road	SPL V	Van An - Phu Thu Road
125	SCC	Binh Dinh	Van Canh	Electricity	SPL I	Canh Nghiep-Canh Hoa-Canh Thuan Commune Electric
126	SCC	Binh Dinh	Tay Son	Electricity	SPL I	Vinh An Commune Electric
127	SCC	Binh Dinh	Phu Cat	Electricity	SPL I	Cat Lam-Cat Nghiep Electric
128	SCC	Binh Dinh	Phu Cat	Electricity	SPL II	Cat Thanh Commune Electric Line
129	SCC	Binh Dinh	Hoai An	Electricity	SPL II	An Hao Commune Electric Line
130	SCC	Binh Dinh	Hoai Nhon	Electricity	SPL II	Hoai Hai Commune Electric Line
131	SCC	Binh Dinh	Phu Cat	Electricity	SPL III	Cat Hai Commune Electric Line
132	SCC	Binh Dinh	Tay Son	Electricity	SPL III	Binh Thuan Commune Electric Line
133	SCC	Binh Dinh	Phu My	Electricity	SPL III	My Tai Commune Electric Line
134	SCC	Binh Dinh	Tay Son	Electricity	SPL III	Tay Phu Commune Electric Line
135	SCC	Binh Dinh	Vân Canh	Electricity	SPL V	Medium and low voltage electrical line in Canh Lien Commune
136	SCC	Binh Dinh	Tay Son	Water Supply	SPL V	Phu Phong Town WSS
137	SCC	Binh Dinh	An Nhon	Irrigation	SPL III	Tan An-Dap Da Irrigation System
138	SCC	Binh Dinh	Phu Cat	Irrigation	SPL V	Upgrade Tam Son Reservoir
139	SCC	Binh Dinh	Phu My	Irrigation	SPL V	Suoi So Reservoir
140	SCC	Binh Dinh	Phu My	Irrigation	SPL V	Chi Hoa 2 Reservoir
141	SE	Binh Duong	Tan Uyen	Road	SPL II	Provincial Road 742, Phu Chanh - Cong Xanh Road
142	SE	Binh Duong	Dau Tieng	Electricity	SPL II	Thanh An-Dinh Hiep Electric Network
143	SE	Binh Duong	Tan Uyen	Electricity	SPL II	Tan Phuoc Khanh Town Electric Line
144	SE	Binh Duong	Dau Tieng	Electricity	SPL III	Long Tan Commune Electric Line
145	SE	Binh Duong	Dah Hoai	Electricity	SPL III	Da Ton Commune Electric Line
146	SE	Binh Phuoc	NA	Road	SPL I	Road No.741
					SPL II	Road No.741, Dong Xoai - Thuan Loi
147	SE	Binh Phuoc	Phuoc Long	Road	SPL II	Town Road Phuoc Long District (Thac Mo Town)
148	SE	Binh Phuoc	Phuoc Long	Road	SPL II	Song Be Bridge on PR 749 Road
			NA		SPL III	Provincial Road No.749
			Phuoc Long		SPL III	Song Be Bridge on PR 749 Road
149	SE	Binh Phuoc	Dong Phu, Binh Long	Road	SPL V	Dong Phu - Binh Long Road
150	SE	Binh Phuoc	Phuoc Long	Electricity	SPL I	Dinh Thang Electric
151	SE	Binh Phuoc	Phuoc Long	Electricity	SPL II	Binh Thang Commune Electric Line
152	SE	Binh Phuoc	Loc Ninh	Electricity	SPL II	Loc Tan-Thanh Luong Commune Electric Line
153	SE	Binh Phuoc	Du Dang	Electricity	SPL III	Duc Lieu Commune Electric Line (stage 1)
154	SE	Binh Phuoc	Binh Long	Electricity	SPL III	Phuoc An Commune Electric Line (Stage1)
155	SE	Binh Phuoc	Binh Long	Electricity	SPL III	Thanh Luong Commune Electric Line
156	SE	Binh Phuoc	Phuoc Long	Electricity	SPL V	Long Hung Commune Electric Line
157	SE	Binh Thuan	Tanh Linh	Road	SPL I	Ba Ta - Gia Huynh Road
158	SE	Binh Thuan	Ham Thuan Bac	Road	SPL I	An Lam - Dong Giang - La Da Road
159	SE	Binh Thuan	Tuy Phong	Road	SPL I	Lien Son - Phan Dung Road
					SPL III	Phong Phu-Phan Dung Road
					SPL III	Lien Huong-Phan Dung Road
160	SE	Binh Thuan	Tanh Linh, Duc Linh	Road	SPL II	Lac Tanh - Vo Xu Road
161	SE	Binh Thuan	Phan Thiet	Road	SPL II	Phan Thiet - Ke Ga Road
162	SE	Binh Thuan	Phan Thiet	Electricity	SPL I	Long Son-Suoi Nuoc Electric Network
163	SE	Binh Thuan	Ham Tan	Electricity	SPL I	46-Song Han Electric Network
164	SE	Binh Thuan	NA	Electricity	SPL I	Km32-Ta Mon Electric Network
165	SE	Binh Thuan	NA	Electricity	SPL I	Thon 1-Co Khe-Trade Center Electric Network
166	SE	Binh Thuan	Phan Thiet	Electricity	SPL II	Long Son-Suoi Nuoc Electric Network
167	SE	Binh Thuan	Ham Tan	Electricity	SPL II	Nga Ba 46-Song Phan Electric Line
168	SE	Binh Thuan	NA	Electricity	SPL II	Tra Mon Km32 Electric Line
169	SE	Binh Thuan	NA	Electricity	SPL II	Koke-KTM Electric Line
170	SE	Binh Thuan	Phan Thiet	Electricity	SPL II	Ham Tien-Bau Me Commune Electric Line
171	SE	Binh Thuan	NA	Electricity	SPL II	Bau Me-Bau Tang Commune Electric Line
172	SE	Binh Thuan	Ham Tan	Electricity	SPL II	Tan Thang Commune Electric Line

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(4/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
173	SE	Binh Thuan	Ham Tan	Electricity	SPL III	Can Cu 6-Ham Tan Electric Line 22KV
174	SE	Binh Thuan	Phan Thiet	Electricity	SPL III	Long Sim-Suoi Nuoc Electric Line 22KV
175	SE	Binh Thuan	Ham Tan	Electricity	SPL III	Tan Thang KTM Commune Electric Line
176	SE	Binh Thuan	Ham Thuan Bac	Electricity	SPL III	Ham Duc-Duong Tieu Electric Line 22KV
177	MD	Ca Mau	Ca Mau City	Road	SPL I	Urban Road (Phuong Tam)
178	MD	Ca Mau	Ca Mau City	Road	SPL I	Phan Boi Chau Road
179	MD	Ca Mau	Ca Mau City, Tac Thu	Road	SPL II	Ngo Quyen Road (Ca Mau - Tac Thu)
180	MD	Ca Mau	Tran Van Thoi	Road	SPL III	Tac Thu-Rach Rang Road
					SPL III	Nong Truong Bridge (Tac Thu - Rach Rang Road)
					SPL V	Bridges & culvert on Tac Thu - Rach Rang Road
181	MD	Ca Mau	Cai Nuoc	Electricity	SPL I	Cai Nuoc-Dam Thi Tuong Electric Network
182	MD	Ca Mau	U Minh, Khanh Hoi	Electricity	SPL II	Khanh Lam Commune Electric Line
183	MD	Ca Mau	Dam Doi	Electricity	SPL III	Tan Thuan Commune Electric Line
184	MD	Ca Mau	Phu Tan	Electricity	SPL III	Phu My Commune Electric Line
185	MD	Ca Mau	Nam Can	Electricity	SPL III	Dat Moi Commune Electric Line
186	MD	Ca Mau	Thoi Binh, Ung Minh,	Electricity	SPL V	Electric Network in Ca Mau Forest and Fishing Ground
187	MD	Ca Mau	Tram Van Thoi	Water Supply	SPL V	Song Doc WSS (South)
188	MD	Ca Mau	Tram Van Thoi	Water Supply	SPL V	Song Doc WSS (North)
189	MD	Ca Mau	Phu Tan	Water Supply	SPL V	Cai Doi Vam Town WSS (South)
190	MD	Ca Mau	Phu Tan	Water Supply	SPL V	Cai Doi Vam Town WSS (North)
191	MD	Ca Mau	U Minh	Irrigation	SPL V	Lung Ranh Irrigation System
192	MD	Can Tho	Can Tho	Road	SPL I	Mau Than Road Upgrading
193	MD	Can Tho	Can Tho	Road	SPL I	Thirty April Road(Hoa Binh-Dau Sau)
					SPL II	Thirty April Road(Cau Tham Tuong-Duong Lao)
194	MD	Can Tho	Can Tho	Road	SPL I	Urban Road of Can Tho city(15,000m2)
195	NE	Cao Bang	Ha Quang	Road	SPL I	Road No.203
196	NE	Cao Bang	Thong Nong	Road	SPL II	Road No.204
			Hoa An		SPL II	Mo Sat Bridge (Road No.204)
197	NE	Cao Bang	Ha Lang	Road	SPL II	Road No.207
			Quang Uyen-Ha Lang		SPL III	Road 207 (Quang Yen-Ha Lang)
			Ha Lang		SPL IV	Provincial Road No.207 (Ha Lang-Bang Ca-Ly Van)
198	NE	Cao Bang	Bao Lac	Road	SPL III	Ban Nga - Xuan Truong Commune Road
199	NE	Cao Bang	Trung Khanh	Road	SPL IV	Provincial Road No.213 (Trung Khanh - Po Peo)
200	NE	Cao Bang	Trung Khanh	Road	SPL IV	Trung Khanh - Kham Thanh - Phong Nam
201	NE	Cao Bang	Nguyen Binh	Road	SPL V	Hoa Tham - National Road No. 3
202	NE	Cao Bang	Thach An	Road	SPL V	Kim Dong - Duc Thong Road
203	NE	Cao Bang	Hoa An	Electricity	SPL I	Be Trieu Electric Network
204	NE	Cao Bang	Hoa An	Electricity	SPL II	Be Trieu Electric Network
205	NE	Cao Bang	Tra Linh	Electricity	SPL II	Hung Quocs Electric Network
206	NE	Cao Bang	Quang Hoa	Electricity	SPL III	Ta Lung Electric Network
207	NE	Cao Bang	Trung Khanh	Electricity	SPL III	Dam Thuy Electric Network
208	NE	Cao Bang	Trung Khanh	Electricity	SPL IV	Kham Thanh Commune Electric Line
209	NE	Cao Bang	Quang Hoa	Electricity	SPL IV	Phuc Xen Commune Electric Line
210	NE	Cao Bang	Thach An	Electricity	SPL IV	Quang Trong-Canh Tan Commune Electric Network
211	NE	Cao Bang	Nguyen Binh	Electricity	SPL IV	Minh Tam Commune Electric Line
212	NE	Cao Bang	Hoa An	Electricity	SPL IV	Hong Viet Commune Electric Line
213	NE	Cao Bang	Hoa An	Electricity	SPL IV	Hung Dao Commune Electric Line
214	NE	Cao Bang	Hoa An	Electricity	SPL IV	Nguyen Hue Commune Electric Line
215	NE	Cao Bang	Phuc Hoa	Electricity	SPL V	Cat Dinh-Hong Dai Communes Electricity System
216	NE	Cao Bang	Thong Nong	Irrigation	SPL V	Luong Thong Irrigation System
217	SCC	Da Nang	Da Nang City	Road	SPL I	Tieu La Road
218	SCC	Da Nang	Da Nang City	Road	SPL II	Tran Cao Van Road
219	SCC	Da Nang	Hoa Vang	Electricity	SPL I	Hoa Phong Commune Electric
220	SCC	Da Nang	Hoa Vang	Electricity	SPL II	Hoa Phu Commune Electric Line
221	SCC	Da Nang	Hoa Vang	Electricity	SPL II	Hoa Phong Commune Electric
222	SCC	Da Nang	Hoa Vang	Electricity	SPL III	Hoa Phat Commune Electric Line
223	SCC	Da Nang	Hoa Son	Electricity	SPL III	Electric Network and Transformer in Hoa Hai Ward
224	SCC	Da Nang	Hoa Son	Electricity	SPL III	Electric Network and Transformer in Hoa Son Ward
225	SCC	Da Nang	Hoa Vang	Electricity	SPL III	Hoa Phong Commune Electric
226	CH	Dac Lak	NA	Road	SPL I	Road No.9
					SPL III	Province Road 9
227	CH	Dac Lak	Krong Pak	Road	SPL II	Phuoc An - Khue Ngoc Dien Road

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

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## Appendix 1.2 Sub-Project (Infrastructure) List

(5/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
228	CH	Dac Lak	Ea Sup	Road	SPL II	Urban Road Ea Soup Town
229	CH	Dac Lak	Buon Don	Road	SPL II	Central Road Buon Don District
230	CH	Dac Lak	Eah Leo	Road	SPL III	Ea Khal - Ea Nam - Ea Wy Road
231	CH	Dac Lak	Krong Nang	Road	SPL IV	Krong Nang District to Phu Xuan Commune
232	CH	Dac Lak	M'Drak	Road	SPL IV	Road D22
233	CH	Dac Lak	Ea H'leo	Road	SPL V	Ea Wy - Cu Mot - Ea Khal Road
234	CH	Dac Lak	Ea H'leo	Road	SPL V	Dlieyang - Eahiao Inter-commune Road
235	CH	Dac Lak	Krong Buk	Electricity	SPL I	Ea-Drong Electric Network
236	CH	Dac Lak	NA	Electricity	SPL I	Dak-Rong Electric Network
237	CH	Dac Lak	Eah Leo	Electricity	SPL II	Eam Nang Commune Electric Line
238	CH	Dac Lak	Krong Bong	Electricity	SPL II	Hoa Le Commune Electric Line
239	CH	Dac Lak	Buon Don	Electricity	SPL II	Krong Na Commune Electric Line
240	CH	Dac Lak	Krong Nang	Electricity	SPL II	Phu Xuan Commune Electric Line
241	CH	Dac Lak	Krong Bong	Electricity	SPL III	Hoa Thanh Commune Electric Line
242	CH	Dac Lak	M'Drak	Electricity	SPL IV	Ia Rieng Commune Electric Line
243	CH	Dac Lak	Cu M'Gar	Electricity	SPL V	Electric Line in Highland Village Win Ea Kiet
244	CH	Dac Lak	Krong Buk	Water Supply	SPL I	Buon Ho Water Supply System
245	CH	Dac Lak	Cu M'Gar	Water Supply	SPL IV	Quang Phu WSS
246	CH	Dac Lak	Lak	Irrigation	SPL III	Buon Chua Irrigation System
247	CH	Dac Lak	Lak	Irrigation	SPL III	Nam Kar Dam
248	CH	Dac Lak	Krong Pak	Irrigation	SPL III	Ea Yeng Reservoir
249	CH	Dac Lak	Krong Ana	Irrigation	SPL IV	Ea Bin Irrigation System
250	CH	Dac Lak	NA	Irrigation	SPL V	Ho Ke Reservoir
251	CH	Dak Nong	Dak Nong Town	Road	SPL III	Gia Nghia - Quang Thanh Road
252	CH	Dak Nong	Dak Song	Road	SPL IV	Road No 6
253	CH	Dak Nong	Dak Nong	Road	SPL V	Quang Khe - Dak Rmang Road
254	CH	Dak Nong	Dak Mil	Road	SPL V	Dak Mam - 7 station (PR No.3)
255	CH	Dak Nong	Buon Don	Electricity	SPL I	Buon Don Electric Network
256	CH	Dak Nong	Dak Mil	Electricity	SPL II	Dak Gan Commune Electric Line
257	CH	Dak Nong	Dak Nong	Electricity	SPL III	Truong Xuan Commune Electric Line
258	CH	Dak Nong	Dak Rlap	Electricity	SPL III	Nhon Co Commune Electric Line
259	CH	Dak Nong	Dak Nong	Irrigation	SPL III	Dak Mam Reservoir
260	CH	Dak Nong	Krong No	Irrigation	SPL V	Electric Pumping Station in Choah Village
261	NW	Dien Bien	Dien Bien	Road	SPL I	Road in East of Dien Bien
					SPL II	East Road of Dien Bien District
					SPL III	East Dien Bien Road
262	NW	Dien Bien	Dien Bien	Road	SPL II	West Road of Nam Rom River
					SPL III	Road in West of Nam Ron River
263	NW	Dien Bien	Dien Bien Dong	Road	SPL III	Na Son - Xa Dung Road
264	NW	Dien Bien	Dien Bien Dong	Road	SPL IV	Pu Nhi - Na Son Road
265	NW	Dien Bien	Tuan Giao	Road	SPL IV	Na Say - Muong Mun Road
					SPL IV	Na Say - Muong Thin - Muong Mun Road
266	NW	Dien Bien	Dien Bien Dong	Road	SPL IV	Phi Nhu - Xa Dung Road
267	NW	Dien Bien	Dien Bien Dong	Road	SPL V	Phi Nhu - Chieng So Road
268	NW	Dien Bien	Dien Bien	Electricity	SPL I	Dien Bien Electric Network
269	NW	Dien Bien	Tuan Giao	Water Supply	SPL III	Tuan Giao Water Supply System
270	NW	Dien Bien	Tua Chua	Water Supply	SPL IV	Tua Chua WSS
271	NW	Dien Bien	Muong Cha	Water Supply	SPL V	Muong Cha WSS
272	NW	Dien Bien	Dien Bien	Irrigation	SPL V	Huoi Un Irrigation System
273	SE	Dong Nai	NA	Road	SPL II	Intercommune Road No.16
274	SE	Dong Nai	Dinh Quan	Road	SPL III	Traffic System NR20-Dong Nai River, Phu Loi-Phu Hoa Road
275	MD	Dong Thap	NA	Road	SPL I	PR No.847(Thet - My An - Bang Lang Rd.)
276	MD	Dong Thap	Tam Nonh, Thanh Binh	Road	SPL II	Tam Nong - Thanh Binh Road
277	MD	Dong Thap	Lai Vung	Road	SPL III	Road No.851
					SPL V	Provincial Road No. 851 (Km2 - Km8+332)
278	MD	Dong Thap	Binh Thanh	Electricity	SPL I	Binh Thanh Electric
279	MD	Dong Thap	Thap Muoi	Electricity	SPL I	Thanh My Electric Network
280	MD	Dong Thap	Lai Vung	Electricity	SPL II	Long Thang Commune Electric Line
281	MD	Dong Thap	Hong Ngu	Electricity	SPL II	Thuong Thoi Tuyen Commune Electric Line
282	MD	Dong Thap	Tam Nong	Electricity	SPL III	Phu Ninh Commune Electric Line
283	MD	Dong Thap	Lap Vo	Electricity	SPL III	Long Hung A Commune Electric Line
284	MD	Dong Thap	Tan Hong	Electricity	SPL III	Tan Thanh Commune Electric Line

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(6/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
285	MD	Dong Thap	Chau Thanh	Electricity	SPL V	Electric Network in Tan Thuan Dong, Tan Phu, Tan Phu Trung, Phu Long Communes
286	MD	Dong Thap	Tam Nong	Water Supply	SPL V	An Long WSS
287	MD	Dong Thap	Tam Nong	Irrigation	SPL V	Upgrade Tam Nong Irrigation System
288	CH	Gia Lai	Gia Lai Town	Road	SPL I	Nguyen Trai - Nguyen Thai Hoc Road
289	CH	Gia Lai	An Khe, K bang	Road	SPL I	Provincial Road No.669
					SPL II	Provincial Road No.669(An Khe - K.Bang)
290	CH	Gia Lai	Ayunpa	Road	SPL III	Ben Mong Bridge
291	CH	Gia Lai	Phu Thien/ Ia Pa	Road	SPL V	Chu A Thai - Ia - Ieng - Ia Pa Road
292	CH	Gia Lai	Dak Doa	Road	SPL V	Nam Yang - kon Gang Road
293	CH	Gia Lai	Chu Prong	Road	SPL V	Province Road 675(Km0-Km20)
294	CH	Gia Lai	Ia Pa	Road	SPL V	Inter-commune Road of Eastern of Ben Mong bridge
295	CH	Gia Lai	Duc Co	Electricity	SPL I	Ia-Doom Electric
296	CH	Gia Lai	Chu Se	Electricity	SPL I	Ia Blang Electric
297	CH	Gia Lai	Chu Prong	Electricity	SPL I	Ia Bang Electric
298	CH	Gia Lai	Chu Pah	Electricity	SPL II	Ia Phi Commune Electric Line
299	CH	Gia Lai	Chu Se	Electricity	SPL II	Ia Hop (Chu Se) Commune Electric Line
300	CH	Gia Lai	K Bang	Electricity	SPL II	Dakhlo (Kbang) Commune Electric Line
301	CH	Gia Lai	A Yun Pa	Electricity	SPL II	Chu Drang (Ayunpa) Commune Electric Line
302	CH	Gia Lai	Krongpa	Electricity	SPL III	Ea-Dreh Commune Electric Line
303	CH	Gia Lai	Duc Co	Electricity	SPL III	Eadok Commune Electric Line
304	CH	Gia Lai	Chu Prong	Electricity	SPL III	Ia Lau Commune Electric Line
305	CH	Gia Lai	Chu Prong	Electricity	SPL V	La Me Commune Electric Network
306	CH	Gia Lai	Chu Pah	Water Supply	SPL I	Chu Pah Water Supply System
307	CH	Gia Lai	Ia Grai	Water Supply	SPL V	Ia Kha Town WSS
308	CH	Gia Lai	Krongpa	Irrigation	SPL III	Cau hai Pump Station
309	CH	Gia Lai	Krongpa	Irrigation	SPL III	EaRsai Irrigation
310	CH	Gia Lai	Dak Doa	Irrigation	SPL V	Dak So Mei Irrigation
311	NE	Ha Giang	Ha Giang Town	Road	SPL I	Nguyen Thai Hoc Road
					SPL II	Nguyen Thai Hoc Road
312	NE	Ha Giang	Yen Minh-Meo Vac	Road	SPL I	Yen Minh - Mau Due - Meo Vac Road
					SPL II	Yen Minh - Mau Due - Meo Vac Road
313	NE	Ha Giang	Ha Giang Town	Road	SPL I	Ha Giang Town - Phu Linh Road
314	NE	Ha Giang	Ha Giang Town	Road	SPL II	Tran Phu Road
315	NE	Ha Giang	Bac Quang-Quang Binh	Road	SPL III	Vinh Tuy-Xuang Giang Road
316	NE	Ha Giang	Vi Xuyen-Bac Quang	Road	SPL IV	Bach Ngoc - Trung Thanh Triway - Dong Tam Intercommune Road
		Vi Xuyen			SPL IV	Km 27 (NR 2) to Trung Thanh Bach Ngoc Triway and Trung Thanh Bridge
317	NE	Ha Giang	Vi Xuyen	Road	SPL V	Road from Km21 bridge to crossing Bach Ngoc - Trung Thanh
318	NE	Ha Giang	Vi Xuyen-Bac Quang	Road	SPL V	Upgrade and Pavement road from Trung Thanh to Tan Quang bridge
319	NE	Ha Giang	Dong Van-Meo Vac	Electricity	SPL II	Dong Van-Meo Vac Electric Line
320	NE	Ha Giang	Dong Van	Electricity	SPL II	Ma So-Lung Tao Commune Electric Line
321	NE	Ha Giang	Ha Giang Town	Electricity	SPL III	Ligh System of Ha Giang Town
322	NE	Ha Giang	Hoang Su Phi	Electricity	SPL III	Thang Tin Commune Electric Line
323	NE	Ha Giang	Hoang Su Phi	Electricity	SPL V	Then Chu Phin commune Electric Line
324	NE	Ha Giang	Bac Quang	Water Supply	SPL I	Bac Quang Water Supply
325	NE	Ha Giang	Vi Xuyen	Water Supply	SPL IV	Vi Xuyen Water Supply System
326	NE	Ha Giang	Hoang Su Phi	Water Supply	SPL V	Vinh Quang Town Water Supply System
327	NE	Ha Giang	Vi Xuyen	Irrigation	SPL V	Khuoi Lam-Khuoi Lac Irrigation System
328	RRD	Ha Nam	NA	Road	SPL I	Road No.63A
329	RRD	Ha Nam	NA	Road	SPL I	Road No.64
					SPL II	Road No.64
330	RRD	Ha Nam	NA	Road	SPL I	Road No.57A(485 Road)
331	RRD	Ha Nam	NA	Road	SPL I	Road No.62
332	RRD	Ha Nam	NA	Road	SPL II	Chau Giang Bridge
333	RRD	Ha Nam	Thanh Liem	Road	SPL II	Road No.484, Thanh Liem
334	RRD	Ha Nam	NA	Road	SPL II	Road No.63B
					SPL III	Road No.63B
335	RRD	Ha Nam	Thanh Liem	Road	SPL II	Provincial Road No.9715
					SPL III	Road No.9715
336	RRD	Ha Nam	Binh Luc	Road	SPL III	Road No.63C
337	RRD	Ha Nam	NA	Electricity	SPL I	Vinh Tru Commune Electric Line
338	RRD	Ha Nam	Duy Tien	Electricity	SPL I	Hoa Mac Commune Electric Line
339	RRD	Ha Nam	Vu Ban,	Electricity	SPL I	Vu Ban Commune Electric Line

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(7/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
340	RRD	Ha Nam	Thanh Liem	Electricity	SPL I	Kien Khe Commune Electric Line
341	RRD	Ha Nam	Binh Luc	Electricity	SPL I	Binh My Commune Electric Line
342	RRD	Ha Nam	Kim Bang	Electricity	SPL I	Nhat Tan Commune Electric Line
343	RRD	Ha Nam	Ly Nhan	Electricity	SPL II	Duc Ly Commune Electric
344	RRD	Ha Nam	Duy Tien	Electricity	SPL II	Chau Son Commune Electric
345	RRD	Ha Nam	Binh Luc	Electricity	SPL II	Hung Cong Commune Electric
346	RRD	Ha Nam	Ly Nhan	Electricity	SPL II	Dong Ly Commune Electric
347	RRD	Ha Nam	Kim Bang	Electricity	SPL II	Thuy Loi Commune Electric
348	RRD	Ha Noi (Ha Tay)	NA	Road	SPL I	Road No.89A (Da Chong - Che)
					SPL II	Road No.89A
349	RRD	Ha Noi (Ha Tay)	Phuc Tho	Road	SPL I	Cam Binh - Sen Chieu Road
350	RRD	Ha Noi (Ha Tay)	Quoc Oai	Road	SPL I	Quoc Oai - Hoa Thach Road
					SPL II	Quoc Oai - Hoa Thach Road
351	RRD	Ha Noi (Ha Tay)	Phuc Tho	Road	SPL I	Tho Loc Road
352	RRD	Ha Noi (Ha Tay)	NA	Road	SPL II	Road No.430
353	RRD	Ha Noi (Ha Tay)	Dan Phuong	Road	SPL II	Tho An - Dan Phuong Road
354	RRD	Ha Noi (Ha Tay)	Dan Phuong	Road	SPL II	Provincial Road No.79
					SPL III	Provincial Road No.79
355	RRD	Ha Noi (Ha Tay)	Thanh Oai	Road	SPL III	Dan Hoa-Thanh Van Road
356	RRD	Ha Noi (Ha Tay)	Quoc Oai	Electricity	SPL I	Phu Man Commune Electric Line
357	RRD	Ha Noi (Ha Tay)	Son Tay Township	Electricity	SPL I	Duong Lam Commune Electric Line
358	RRD	Ha Noi (Ha Tay)	Than Uyen	Electricity	SPL I	Van Hoa Commune Electric Line
359	RRD	Ha Noi (Ha Tay)	Chuong My	Electricity	SPL I	Nam Phuong Tien Commune Electric Line
360	RRD	Ha Noi (Ha Tay)	Ba Vi	Electricity	SPL II	Ba Vi Commune Electric Line
361	RRD	Ha Noi (Ha Tay)	Chuong My	Electricity	SPL II	Nam Phuong Tien Commune Electric Line
362	RRD	Ha Noi (Ha Tay)	Thach That	Electricity	SPL II	Lien Quan Town Electric Line
363	RRD	Ha Noi (Ha Tay)	Thuong Tin	Electricity	SPL II	Hien Giang Electric Line
364	RRD	Ha Noi (Ha Tay)	Phu Xuyen	Water Supply	SPL III	Phu Xuyen WSS
365	NCC	Ha Tinh	NA	Road	SPL I	Provincial Road No.3
366	NCC	Ha Tinh	NA	Road	SPL I	Xuan Hai - Xuan Hoi Road
367	NCC	Ha Tinh	Thach Ha	Road	SPL I	Provincial Road No.7
					SPL II	Provincial Road No.7
368	NCC	Ha Tinh	Huong Son	Road	SPL I	Nam - Son Tien Road
					SPL I	Nam - Son Tien Road
					SPL II	Nam - Son Tien Road
369	NCC	Ha Tinh	Ha Tinh Town	Road	SPL I	Urban Road 26/3 - Ha Tinh Town
370	NCC	Ha Tinh	Thach Ha	Road	SPL II	Thach Mon - Thach Dinh Road
371	NCC	Ha Tinh	Huong Son	Road	SPL III	Son Binh - Son Thuy - Son Mai Road
372	NCC	Ha Tinh	Cam Xuyen	Road	SPL IV	Cam Thach - Cam Thanh - Cam Binh - Thach Hoi Inter District Road
373	NCC	Ha Tinh	Ky Anh	Road	SPL IV	Lam - Son-Thuong Road
374	NCC	Ha Tinh	Huong Khe	Road	SPL IV	Provincial Road No.18
375	NCC	Ha Tinh	Duc Tho	Road	SPL IV	Road No. 28
376	NCC	Ha Tinh	Huong Son	Road	SPL V	Son Phu - Son Phuc - Son An - Son Tien transport system
377	NCC	Ha Tinh	Hong Linh	Road	SPL V	Road, bridge for Trung Luong cottage village (Pilot Subproject)
378	NCC	Ha Tinh	Huong Son	Road	SPL V	Son Tra - Son Long Road
379	NCC	Ha Tinh	Huong Khe	Electricity	SPL I	Huong Khe Distric Electric Network
380	NCC	Ha Tinh	Huong Son	Electricity	SPL I	Huong Son Distric Electric Network
381	NCC	Ha Tinh	Thach Ha	Electricity	SPL I	Thach Ha Distric Electric Network
382	NCC	Ha Tinh	Thach Ha	Electricity	SPL I	Dai Nai-Ha Tinh Town Electric
383	NCC	Ha Tinh	Hong Linh	Electricity	SPL I	Hong Linh Electric
384	NCC	Ha Tinh	Ky Anh	Electricity	SPL I	Ky Tan-Ky Ha Electric
385	NCC	Ha Tinh	Duc Tho	Electricity	SPL I	Duc Tho Distric Electric Network
386	NCC	Ha Tinh	Can Loc	Electricity	SPL I	Can Loc Distric Electric Network
387	NCC	Ha Tinh	Cam Xuyen	Electricity	SPL I	Cam Xuyen Distric Electric Network
388	NCC	Ha Tinh	Nghi Xuan	Electricity	SPL I	Nghi Xuan Distric Electric Network
389	NCC	Ha Tinh	Thai Yen	Electricity	SPL I	Thai Yen Distric Electric Network
390	NCC	Ha Tinh	Huong Khe	Electricity	SPL II	Transformer 10KV Huong Xuan-Huong Lien
391	NCC	Ha Tinh	Can Loc	Electricity	SPL II	Transformer 10KV Binh Loc-Thinh Loc
392	NCC	Ha Tinh	NA	Electricity	SPL II	Son Truong Commune Electric Line
393	NCC	Ha Tinh	Thach Ha	Electricity	SPL II	Thach Vinh Commune Electric Line
394	NCC	Ha Tinh	Thai Yen	Electricity	SPL II	Thai Yen Distric Electric Network
395	NCC	Ha Tinh	NA	Electricity	SPL II	Cay Town Electric Network

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta



## Appendix 1.2 Sub-Project (Infrastructure) List

(8/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
396	NCC	Ha Tinh	Hong Linh	Electricity	SPL II	Hong Linh Commune Electric Line
397	NCC	Ha Tinh	Huong Son	Electricity	SPL II	Son Thuy-Le Thuy Commune Electric Line
398	NCC	Ha Tinh	Nghi Xuan	Electricity	SPL II	Xuan Thanh Commune Electric Line
399	NCC	Ha Tinh	Huong Son	Electricity	SPL II	Son Mai-Thanh Mai Electric Network
400	NCC	Ha Tinh	Ky Anh	Electricity	SPL IV	Ky Lam-Ky Thinh Commune Electric Network
401	NCC	Ha Tinh	Huong Son	Electricity	SPL IV	Son Bang-Son Thinh Commune Electric Network
402	NCC	Ha Tinh	Can Loc	Electricity	SPL IV	Quang Loc-My Loc Commune Electric Network
403	NCC	Ha Tinh	Cam Xuyen	Electricity	SPL IV	Cam Nhung-Cam Due Commune Electric Network
404	NCC	Ha Tinh	Thach Ha	Electricity	SPL V	Thach Ha Distric Electric Network
405	NCC	Ha Tinh	Ky Anh	Water Supply	SPL I	Ky Anh Water Supply System
406	NCC	Ha Tinh	Ky Anh	Water Supply	SPL III	Vung An WSS
					SPL V	Ky Anh WSS
407	NCC	Ha Tinh	Vu Quang	Water Supply	SPL III	Vu Quang
408	NCC	Ha Tinh	Can Loc	Water Supply	SPL IV	Nghen Town WSS
409	NCC	Ha Tinh	Hong Linh	Water Supply	SPL V	Trung Luong Commune WSS (Pilot Subproject)
410	NCC	Ha Tinh	Ky Anh	Irrigation	SPL III	Song Rac Irrigation
411	NCC	Ha Tinh	Can Loc	Irrigation	SPL IV	An Hung Dam
412	NCC	Ha Tinh	Huong Son	Irrigation	SPL IV	Cau Ke Dam
413	NCC	Ha Tinh	Ky Anh	Irrigation	SPL IV	Khe Coi Dam
414	NCC	Ha Tinh	Cam Xuyen	Irrigation	SPL IV	19/5 Dam
415	NCC	Ha Tinh	Duc Tho	Irrigation	SPL IV	Lien Minh-Tung Chau Irrigation System
416	NCC	Ha Tinh	Huong Khe	Irrigation	SPL V	Huong Long-Huong Binh-Hoa Hai-Phu Gia-Huong Vinh-Huong Xuan Irrigation System
417	RRD	Hai Duong	NA	Road	SPL I	Road No.191
					SPL II	Road No.191, Tu Ky Road
418	RRD	Hai Duong	Gia Loc, Ninh Giang	Road	SPL I	Road No.17A (Gia Loc - Ninh Giang)
419	RRD	Hai Duong	NA	Road	SPL I	Road No.20B
420	RRD	Hai Duong	Kinh Mon	Road	SPL I	Phung Khac Road
					SPL III	Phung Khac Road
421	RRD	Hai Duong	Hai Duong City	Road	SPL II	Road in west of Hai Duong City
422	RRD	Hai Duong	Ninh Giang	Road	SPL II	Road No.210, Tu Giang
423	RRD	Hai Duong	Hai Duong City	Electricity	SPL I	Hai Duong Town Electric Network
424	RRD	Hai Duong	Ninh Giang	Electricity	SPL I	Ninh Giang District Electric Network
425	RRD	Hai Duong	Tu Ky	Electricity	SPL I	Tu Ky District Electric Network
426	RRD	Hai Duong	Thanh Ha	Electricity	SPL II	Thanh Ha District Electric Line
427	RRD	Hai Duong	Ninh Giang	Electricity	SPL II	Ninh Giang District Electric Line
428	RRD	Hai Duong	Binh Giang	Electricity	SPL II	Binh Giang District Electric Line
429	RRD	Hai Duong	Kinh Mon	Electricity	SPL II	Kinh Mon District Electric Line
430	RRD	Hai Duong	Hai Duong City	Electricity	SPL II	Light System of Hai Duong City
431	RRD	Hai Duong	Chi Linh	Water Supply	SPL III	Sao Do WSS
432	RRD	Hai Phong	Hai Phong City	Road	SPL I	Nguyen Trai Street (Hai Phong City)
433	RRD	Hai Phong	Kien Thuy, Do Son	Road	SPL I	Road No.401 (Kien Thuy - Do Son)
434	RRD	Hai Phong	Hai Phong City	Road	SPL I	Lach Tray Street (Hai Phong City)
435	RRD	Hai Phong	Vinh Bao	Road	SPL I	Road No.17
436	RRD	Hai Phong	NA	Road	SPL I	Road No.404
437	RRD	Hai Phong	NA	Road	SPL I	Road No.301
438	RRD	Hai Phong	Kien Thuy	Road	SPL II	Provincial Road No.402
					SPL III	Road No.402
439	RRD	Hai Phong	Vinh Bao	Road	SPL III	Road No.17B
440	RRD	Hai Phong	Vinh Bao	Electricity	SPL II	Vinh Bao Town Electric Line
441	RRD	Hai Phong	Vinh Bao	Water Supply	SPL III	Vinh Bao WSS
442	MD	Hau Giang	Long My	Road	SPL V	Cao Hot Be Road
443	MD	Hau Giang	Long My	Electricity	SPL I	Vinh Vien Electric
444	MD	Hau Giang	Long My	Electricity	SPL II	Vinh Vien Electric
445	MD	Hau Giang	Long My	Electricity	SPL II	Long Binh Commune Electric Line
446	MD	Hau Giang	Long My	Electricity	SPL V	Electric Network in Long Phu-Phu Tri-Thuan Hung Communes
447	MD	Hau Giang	Vi Thanh	Water Supply	SPL III	Vi Thanh WSS
448	NW	Hoa Binh	Da Bac	Road	SPL I	Road No.433
					SPL II	Road No.433
					SPL III	Road 433
					SPL IV	Road 433
					SPL V	Road 433 (Km55-Km84)
449	NW	Hoa Binh	Hoa Binh City	Road	SPL I	Urban Road (Hoa Binh Town), 21Roads

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(9/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
450	NW	Hoa Binh	Hoa Binh City	Road	SPL II	Hoa Binh Town Road
451	NW	Hoa Binh	Tan Lac	Road	SPL V	Tu Ne - Lo Son Road
452	NW	Hoa Binh	Mai Chau	Electricity	SPL I	Tan My Commune Electric Line
453	NW	Hoa Binh	NA	Electricity	SPL I	Lac Thinh Commune Electric Line
454	NW	Hoa Binh	Tan Lac	Electricity	SPL II	Phu Cuong Commune Electric Line
455	NW	Hoa Binh	Mai Chau	Electricity	SPL II	Tan My Commune Electric Line
456	NW	Hoa Binh	Luong Son	Electricity	SPL II	Nhan Trach Commune Electric Line
457	NW	Hoa Binh	Ky Son	Electricity	SPL II	Hop Thinh Commune Electric Line
458	NW	Hoa Binh	NA	Electricity	SPL II	Lac Thinh Commune Electric Line
459	NW	Hoa Binh	Tan Lac	Electricity	SPL III	Phu Cuong Commune Electric Line
460	NW	Hoa Binh	Lac Son	Electricity	SPL III	Van Son Commune Electric Line
461	NW	Hoa Binh	Kim Boi	Electricity	SPL III	Hop Kim Commune Electric Line
462	NW	Hoa Binh	Lac Son	Electricity	SPL V	Thien Chi-Lac Son Commune Electric Line
463	NW	Hoa Binh	Lac Thuy	Irrigation	SPL III	Phu Lao Reservoir
464	NW	Hoa Binh	Yen Thuy	Irrigation	SPL V	Ngoc Luong Reservoir
465	RRD	Hung Yen	NA	Road	SPL I	Road No.202
466	RRD	Hung Yen	NA	Road	SPL I	Road No.205
467	RRD	Hung Yen	An Thi, Tien Lu	Road	SPL I	Road No.200(My Van, An Thi, Tien Lu)
468	RRD	Hung Yen	Kim Dong, Khoai Chau	Road	SPL II	Road No.208A
469	RRD	Hung Yen	NA	Road	SPL II	Road No.203B, Cau Cap - Quan Thu Road
			Phu Cu, Tien Lu		SPL III	Road No.203B
470	RRD	Hung Yen	NA	Road	SPL II	Road No.196
471	RRD	Hung Yen	NA	Road	SPL II	Road No.195
472	RRD	Hung Yen	Kim Dong, Khoai Chau	Road	SPL III	Road No.208
473	RRD	Hung Yen	Kim Dong	Road	SPL III	Road No.61
474	RRD	Hung Yen	NA	Road	SPL III	Road No.195, 201, 204
475	RRD	Hung Yen	An Thi	Electricity	SPL I	An Thi Electric Line
476	RRD	Hung Yen	Phu Cu	Electricity	SPL I	Phu Cu Electric Line
477	RRD	Hung Yen	Tien Lu	Electricity	SPL II	Dien Vuong-Tien Lu Electric System
478	RRD	Hung Yen	Khoai Chau	Electricity	SPL II	Khoai Chau Town Electric Line
479	RRD	Hung Yen	Kim Dong	Electricity	SPL II	Luong Bang-Kim Dong Electric Network
480	RRD	Hung Yen	My Hao	Electricity	SPL II	My Hao Commune Electric Line
481	RRD	Hung Yen	An Thi	Electricity	SPL II	Ha Le-An Thi Electric Network
482	SCC	Khanh Hoa	Nha Trang	Road	SPL I	Road to Nha Trang Sea Port
483	SCC	Khanh Hoa	NA	Road	SPL I	Provincial Road No.9
484	SCC	Khanh Hoa	Ninh Hoa	Electricity	SPL I	Ninh An Commune Electric
485	SCC	Khanh Hoa	Dien Khanh	Electricity	SPL I	Suoi Cat Commune Electric
486	SCC	Khanh Hoa	Ninh Hoa	Electricity	SPL II	Ninh Binh Commune Electric Line
487	SCC	Khanh Hoa	Dien Khanh	Electricity	SPL II	Dien Lam Commune Electric Line
488	SCC	Khanh Hoa	NA	Electricity	SPL II	Doc Da Trang Commune Electric Line
489	SCC	Khanh Hoa	Van Ninh	Electricity	SPL III	Van Thanh Commune Electric Line
490	SCC	Khanh Hoa	Khanh Vinh	Electricity	SPL III	Khanh Vinh Commune Electric Line
491	SCC	Khanh Hoa	Nha Trang	Electricity	SPL III	Phuoc Dong Commune Electric Line
492	MD	Kien Giang	An Bien	Road	SPL I	Nam Ky Khoi Nghia Road
493	MD	Kien Giang	Rach Gia	Road	SPL I	Urban Road (Ngo Quyen Rd. Rach Gia Town)
494	MD	Kien Giang	Giong Gieng	Road	SPL II	Ngoc Chuc-Hoa Thuan-Hoa Hung-Hoa Loi-Hoa An, 5 Bridges only
495	MD	Kien Giang	Tan Hiep	Road	SPL III	Giong Rieng-Go Quao Inter-Commune Road
496	MD	Kien Giang	Vinh Thuan	Road	SPL V	Vinh Thuan - Tan Thuan - Minh Thuan Inter-commune Road
497	MD	Kien Giang	Phu Quoc	Electricity	SPL I	Duong Dong Electric Line
498	MD	Kien Giang	Kien Hai	Electricity	SPL I	Lai Son Commune Electric Line
499	MD	Kien Giang	Phu Quoc	Electricity	SPL II	Duong To-An Thoi Electric Network
500	MD	Kien Giang	Giong Gieng	Electricity	SPL V	Electric Line and Transformer in buffer Zone of U Minh Thuong National Garden
501	MD	Kien Giang	Giong Gieng	Water Supply	SPL III	Giong Gieng WSS
502	CH	Kon Tum	Kon Tum town	Road	SPL I	Quang Trung Road
503	CH	Kon Tum	Ngoc Hoi	Road	SPL I	Ngoc Hoi Township Road
504	CH	Kon Tum	Kon Plong	Road	SPL I	Road Ngoc Tem
			Ngoc Hoi		SPL II	Road to Ngoc Tem Commune
			Ngoc Hoi		SPL III	Road to Ngoc Tem Commune
505	CH	Kon Tum	Ngoc Hoi	Road	SPL V	Inter-commune Road and Dak Ang Bridge
506	CH	Kon Tum	Dak Glei	Electricity	SPL I	Thuy Dien-Ngoc Linh Electric Network
507	CH	Kon Tum	Dak Rong	Electricity	SPL I	Dak Mon-Dak Loong Electric Network
508	CH	Kon Tum	Dac Ha	Electricity	SPL II	Dac Uy (Dac Ha) Electric Network

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(10/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
509	CH	Kon Tum	Dak Ha	Electricity	SPL III	Ngoc Wang Commune Electric Line
510	CH	Kon Tum	Kon Tum town	Electricity	SPL III	Ia-Chim Commune Electric Line
511	CH	Kon Tum	Kon Ray	Electricity	SPL III	Dak-koi Commune Electric Line
512	CH	Kon Tum	Dak To	Electricity	SPL V	Dak Ha Commune Electric Network
513	CH	Kon Tum	Konplong	Water Supply	SPL III	Kon Plong WSS
514	CH	Kon Tum	Ngoc Hoi	Water Supply	SPL V	WSS in Bo Y Boder Gate
515	CH	Kon Tum	Dak Ha	Water Supply	SPL V	Dak Ha Town WSS
516	CH	Kon Tum	Dak Glei	Irrigation	SPL III	Dakpoko Irrigation
517	CH	Kon Tum	Sa Thay	Irrigation	SPL V	Dak Sia 1 Irrigation System
518	NW	Lai Chau	Tam Duong	Road	SPL I	Tam Duong-Ban Giang-Ban Hon Road
					SPL II	Tam Duong-Ban Giang-Ban Hon Road
519	NW	Lai Chau	Muong Te	Road	SPL III	Bun Nua - Pa Ve Su Road
520	NW	Lai Chau	Phong Tho	Road	SPL IV	Nam Cay - Sin Cai Road
521	NW	Lai Chau	Tam Duong	Road	SPL IV	Tam Duong - Then Xin - Ban Man Road
522	NW	Lai Chau	Phong Tho	Road	SPL V	Dao San - Pa Vay Su Road
523	NW	Lai Chau	Phong Tho	Road	SPL V	Nam Xe - Sin Suoi Ho Road
524	NE	Lai Chau	Than Uyen	Electricity	SPL I	Van Hoa Commune Electric Line
525	NE	Lai Chau	Than Uyen	Electricity	SPL I	Muong Khoa Commune Electric Line
526	NE	Lai Chau	Than Uyen	Electricity	SPL I	Minh Thanh Commune Electric Line
527	NW	Lai Chau	Phong Tho	Electricity	SPL I	Binh Lu Electric Network (stage 1 and 2)
528	NW	Lai Chau	Phong Tho	Electricity	SPL I	Ban Bo Commune Electric Line
529	NW	Lai Chau	Than Uyen	Electricity	SPL IV	Than Thuoc Commune Electric Line
530	NW	Lai Chau	Than Uyen	Electricity	SPL V	Nam Can-Bac Ta Electric Network
531	NW	Lai Chau	Binh Lu	Water Supply	SPL III	Binh Lu Water Supply System
532	NW	Lai Chau	Than Uyen	Water Supply	SPL IV	Than Uyen WSS
533	NW	Lai Chau	Phong Tho	Water Supply	SPL V	Phong Tho WSS (West)
534	NW	Lai Chau	Phong Tho	Water Supply	SPL V	Phong Tho WSS (East)
535	NW	Lai Chau	Tam Duong	Irrigation	SPL V	Khu Ha Irrigation System
536	CH	Lam Dong	NA	Road	SPL I	Yersin - Quang Trung - Phan Chu Trinh Road
537	CH	Lam Dong	Cat Tien	Road	SPL I	Road No.721(from Madagui to Cat Tien)
538	CH	Lam Dong	NA	Road	SPL II	Provincial Road No.725
539	CH	Lam Dong	Dat Lat City	Road	SPL II	Tran Phu - Hoang Van Thu Road
540	CH	Lam Dong	Di Linh	Road	SPL II	Hoa Ninh - Hoa Nam Road
					SPL III	Hoa Ninh-Hoa Nam-Dinh Thang Hoa Road
541	CH	Lam Dong	Lam Ha	Road	SPL V	Tan Van - Phuc Tho Road
542	CH	Lam Dong	Dam Rong	Road	SPL V	Phi Lieng Center Commune Road
543	CH	Lam Dong	Lam Ha	Electricity	SPL I	Dinh Van-Phu Son Electric Network
544	CH	Lam Dong	Cat Tien	Electricity	SPL I	Dong Nai-Gia Vien-Tien Hoang Electric
545	CH	Lam Dong	Da Terh	Electricity	SPL I	Da The-Trieu Hai Electric
546	CH	Lam Dong	Bao Loc	Electricity	SPL I	Madagui-Ha Lam-Dam Bri Electric Network
547	CH	Lam Dong	Cat Tien	Electricity	SPL II	Phuoc Cat 2 Commune Electric Line
548	CH	Lam Dong	Cung Re	Electricity	SPL II	Cung Re Commune Electric Line
549	CH	Lam Dong	Lam Ha	Electricity	SPL II	22KV Madagui-Da Hoai
550	CH	Lam Dong	Bao Lam	Electricity	SPL III	Loc Ngai Commune Electric Line 22KV
551	CH	Lam Dong	Bao Lam	Electricity	SPL III	Loc Tan Commune Electric Line
552	CH	Lam Dong	Dah Hoai	Electricity	SPL III	Da Ton Commune Electric Line
553	CH	Lam Dong	Lam Ha	Electricity	SPL V	Da Don Commune Electric Line
554	CH	Lam Dong	Bao Loc	Water Supply	SPL I	Bao Loc Water Supply System
555	CH	Lam Dong	Bao Lam	Water Supply	SPL V	Loc Thang Town WSS
556	CH	Lam Dong	Lam Ha	Irrigation	SPL III	Da-Don Dam
557	CH	Lam Dong	Lac Duong	Irrigation	SPL V	Bokabang Water Reservoir
558	NE	Lang Son	Lang Son City	Road	SPL I	Ly Thai To - Chu Van An Road
559	NE	Lang Son	Trang Dinh	Road	SPL I	That Khe - Quoc Khanh Road (PR No.228)
					SPL II	That Khe - Quoc Khanh Road
560	NE	Lang Son	Lang Son City	Road	SPL I	Dinh Tien Hoang Road
561	NE	Lang Son	Van lang	Road	SPL III	Na Sam-Na Hinh Road
562	NE	Lang Son	Binh Gia	Road	SPL III	Hoa Binh - Binh La Road
			Van Quan, Van Lang,	Road	SPL IV	Hoa Binh - Binh La - Gia Mien road (Km 20-26)
			Van Quan, Binh Gia,	Road	SPL V	Hoa Binh - Binh La - Gia Mien Road
563	NE	Lang Son	Loc Binh	Road	SPL IV	Provincial Road No.237C
564	NE	Lang Son	Van Quan	Electricity	SPL I	Dong Giap Electric Network
565	NE	Lang Son	Chi Lang	Electricity	SPL I	Yen Tich Electric Network

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(11/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
566	NE	Lang Son	Huu Lung	Electricity	SPL II	Hoa Lac-Hoa Son-Tan Thanh Electric Line
567	NE	Lang Son	Binh Gia	Electricity	SPL II	Binh Gia-Pac Thuong Electric Line
568	NE	Lang Son	Chi Lang	Electricity	SPL III	Chien Thang Transfomer and Electric Line
569	NE	Lang Son	Loc Binh	Electricity	SPL III	Southern of Loc Binh Transfomer and Electric Line
570	NE	Lang Son	Van lang	Electricity	SPL III	Hoi Hoan Transfomer and Electric Line
571	NE	Lang Son	Binh Gia, Bac Son	Electricity	SPL V	0.4KV Electric Line in Binh Gia, Bac Son Distric
572	NE	Lang Son	Van Lang	Water Supply	SPL V	Na Sam Town WSS
573	NE	Lang Son	Huu Lung	Irrigation	SPL V	Thien Ky Irrigation System
574	NE	Lao Cai	Bao Thang, Van Ban	Road	SPL I	Tang Long - Khe Lech Road(PR No.79)
			Bao Thang		SPL II	Road No.79, Tang Long - Khe Lech Road
			Van ban		SPL III	Provincial Road 79
575	NE	Lao Cai	Sa Pa	Road	SPL I	Pho Moi - Sa Pa Road
576	NE	Lao Cai	Lao Cai	Road	SPL I	Pho Moi - Phong Hai Road
					SPL II	Pho Moi - Phong Hai Road
					SPL III	Pho Moi - Phong Hai Road
577	NE	Lao Cai	Bao Uyen	Road	SPL III	Bao Ha - Kim Son Road
					SPL IV	Bao Ha - Kim Son Road
578	NE	Lao Cai	Muong Khuong, Bac	Road	SPL IV	Hoang Lien Son II Road
579	NE	Lao Cai	Bac Ha	Road	SPL V	Bac Ngam - Bac Ha Road
580	NE	Lao Cai	Van Bao	Electricity	SPL I	Vo Lao Commune Electric Line
581	NE	Lao Cai	Bao Yen	Electricity	SPL I	Minh Tan Commune Electric Line
582	NE	Lao Cai	Bao Yen	Electricity	SPL I	Dien Quan Commune Electric Line
583	NE	Lao Cai	Bao Thang	Electricity	SPL II	Gia Phu Commune Electric
584	NE	Lao Cai	Bao Thang	Electricity	SPL II	Ban Phiet Commune Electric
585	NE	Lao Cai	Lao Cai	Electricity	SPL II	Dong Tuyen Commune Electric
586	NE	Lao Cai	Muong Khuong	Electricity	SPL II	Ban Lau Commune Electric
587	NE	Lao Cai	Bao Thang	Electricity	SPL II	Phong Hai Commune Electric
588	NE	Lao Cai	Bao Thang	Electricity	SPL II	Tang Loong Commune Electric
589	NE	Lao Cai	Bac Ha	Electricity	SPL III	Bao Nhai Electric Network
590	NE	Lao Cai	Cam Duong	Electricity	SPL III	Ta Phoi Electric Network
591	NE	Lao Cai	Bat Xat	Electricity	SPL III	Muon Vi Electric Network
592	NE	Lao Cai	Van ban	Electricity	SPL IV	Nam Ma Commune Electric Line
593	NE	Lao Cai	Bao Yen	Electricity	SPL IV	Xuan Hoa Commune Electric Line
594	NE	Lao Cai	Muong Khuong	Water Supply	SPL III	Muon Khuong Water Supply System
595	NE	Lao Cai	Bac Ha	Water Supply	SPL IV	Bac Ha WSS
596	NE	Lao Cai	Bat Xat	Irrigation	SPL IV	Sin Chai Irrigation System
597	NE	Lao Cai	Muong Khuong	Irrigation	SPL V	Nam Chay Irrigation System
598	MD	Long An	Tan An	Road	SPL I	Road No.6 (Tan An Town)
					SPL II	Road No.6 (Extension)
599	MD	Long An	Tan An	Road	SPL I	Road No.5 (Tan An Town)
600	MD	Long An	Can Duoc	Road	SPL III	Provincial Road 835 Section 1 Go Den - Xoai Doi
601	MD	Long An	Thu Thua	Electricity	SPL I	My An Electric
602	MD	Long An	Duc Hoa	Electricity	SPL I	An Ninh Tay Electric
603	MD	Long An	Can Giuoc	Electricity	SPL II	Phuoc Vinh Dong Commune Electric Line
604	RRD	Nam Dinh	Nam Dinh City	Road	SPL I	Nam Dinh - Quan Vinh Road
605	RRD	Nam Dinh	NA	Road	SPL I	Bo Song Road
					SPL II	Bo Song Road(Road around Nam Dinh River)
606	RRD	Nam Dinh	Y Yen	Road	SPL I	Road No.12A (Y Yen)
					SPL I	Road No.12A (Vu Ban)
607	RRD	Nam Dinh	Nam Dinh City	Road	SPL I	Urban Road of Nam Dinh Town
608	RRD	Nam Dinh	NA	Road	SPL I	Provincial Road No.57A
609	RRD	Nam Dinh	NA	Road	SPL II	Provincial Road No.490 (Old Road No.55)
610	RRD	Nam Dinh	Vu Ban, Y Yen	Road	SPL II	Road No.12, Vu Ban - Y.Yen Road
611	RRD	Nam Dinh	NA	Road	SPL II	West Muc River Road
612	RRD	Nam Dinh	Xuan Truong	Road	SPL II	Road 489
					SPL III	Province Road 489
613	RRD	Nam Dinh	Nam Dinh City	Road	SPL III	Tran Nhan Tong Road (Extension)
614	RRD	Nam Dinh	Vu Ban, Y Yen	Road	SPL III	Provincial Road No.56
615	RRD	Nam Dinh	Nam Truc	Electricity	SPL I	Nam My Commune Electric Line
616	RRD	Nam Dinh	Vu Ban	Electricity	SPL I	Tam Thanh Commune Electric Line
617	RRD	Nam Dinh	Giao Thuy	Electricity	SPL I	Hong Thuan Commune Electric Line
618	RRD	Nam Dinh	NA	Electricity	SPL I	Thinh Long Commune Electric Line

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(12/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
619	RRD	Nam Dinh	Nam Truc	Electricity	SPL I	Nam Thuong-Dong Long Commune Electric Line
620	RRD	Nam Dinh	NA	Electricity	SPL I	Yen Trinh Commune Electric Line
621	RRD	Nam Dinh	Hai Hau	Electricity	SPL I	Hai Trieu Commune Electric Line
622	RRD	Nam Dinh	Xuan Truong	Electricity	SPL II	Xuan Chau Commune Electric Line
623	RRD	Nam Dinh	NA	Electricity	SPL II	Hop Hung Commune Electric Line
624	RRD	Nam Dinh	Hai Hau	Electricity	SPL II	Hai Son Commune Electric Line
625	RRD	Nam Dinh	Giao Thuy	Electricity	SPL II	Giao Hai Commune Electric Line
626	RRD	Nam Dinh	Y Yen	Electricity	SPL II	Lam Town Electric Line
627	RRD	Nam Dinh	Xuan Truong	Electricity	SPL II	Xuan Tien Commune Electric Line
628	RRD	Nam Dinh	Van Chan	Electricity	SPL II	Tan Thinh Commune Electric Line
629	RRD	Nam Dinh	Hai Hau	Electricity	SPL II	Hai Minh Commune Electric Line
630	NCC	Nghe An	Vinh Loc	Road	SPL I	Vinh - Cua Hoi Road (PR No.535)
					SPL II	Vinh - Cua Hoi Road,PR535 (Ascon. Only)
631	NCC	Nghe An	Nghi Loc	Road	SPL I	Nghi Thu - Cua Lo Road
632	NCC	Nghe An	Vinh City	Road	SPL I	Le Hong Phong - Nguyen Thai Hoc Road
633	NCC	Nghe An	Vinh City	Road	SPL I	Tran Hung Dao - Truong Chinh Road
					SPL II	Tran Hung Dao Road
634	NCC	Nghe An	Vinh City	Road	SPL II	Binh Minh Road
635	NCC	Nghe An	Quy Chau	Road	SPL III	Quy Chau-Chau Phong Township Road
636	NCC	Nghe An	Con Cuong	Road	SPL III	Bong Khe-Mon Son Road
637	NCC	Nghe An	Nghi Loc	Road	SPL III	Nghi Duc-Nghi Thiet Road
638	NCC	Nghe An	Que Phong	Road	SPL IV	Hanh Dich - Muong Don Road
639	NCC	Nghe An	Tuong Duong	Road	SPL IV	Ve - Nga My Road
640	NCC	Nghe An	Thanh Chuong	Road	SPL IV	Song Giang Bridge
641	NCC	Nghe An	Ky Son	Road	SPL V	Ta Ca - Huu Kien Road
642	NCC	Nghe An	Anh Son	Road	SPL V	Duc Son - Binh Son commune Road
643	NCC	Nghe An	Tan Ky	Electricity	SPL I	Giai Xuan Electric Network
644	NCC	Nghe An	Thanh Chuong	Electricity	SPL I	Thanh Hung Electric Network
645	NCC	Nghe An	Tan Ky	Electricity	SPL I	Cao Son Electric Network
646	NCC	Nghe An	Tan Ky	Electricity	SPL II	Nghia Phuc Commune Electric Line
647	NCC	Nghe An	Thanh Chuong	Electricity	SPL II	Thanh Ngoc Commune Electric Line
648	NCC	Nghe An	Anh Son	Electricity	SPL II	Vinh Son Commune Electric Line
649	NCC	Nghe An	Nghi Loc	Electricity	SPL III	Nghi Van Commune Electric Line
650	NCC	Nghe An	Quang Phong	Electricity	SPL III	Muong Noc Commune Electric Line
651	NCC	Nghe An	Tuong Duong	Electricity	SPL III	Yen Tinh Commune Electric Line
652	NCC	Nghe An	Thanh Chuong	Electricity	SPL IV	Thanh An Commune Electric Line
653	NCC	Nghe An	Con Cuong	Electricity	SPL IV	Thach Ngan Commune Electric Line
654	NCC	Nghe An	Tan Ky	Electricity	SPL V	Nghia Thanh Commune Electric Line
655	NCC	Nghe An	Con Cuong	Electricity	SPL V	Binh Chuan Commune Electric Line
656	NCC	Nghe An	Cua Lo Town	Water Supply	SPL I	Cua Lo Water Supply System
657	NCC	Nghe An	Nam Dan	Water Supply	SPL IV	Nam Dan WSS
658	NCC	Nghe An	Yen Thanh	Water Supply	SPL IV	Yen Thanh WSS
659	NCC	Nghe An	Nghia Dan	Water Supply	SPL V	Nghia Dan WSS
660	NCC	Nghe An	Hung Nguyen	Irrigation	SPL III	Khe Ngang Reservoir
661	NCC	Nghe An	Do Luon	Irrigation	SPL IV	Yen Trach-Khe Chet Dam
662	NCC	Nghe An	Quy Chau	Irrigation	SPL IV	Ke Coc-Khe Nha Irrigation Canal
663	NCC	Nghe An	Thanh Chuong	Irrigation	SPL IV	Trieu Duong Reservoir
664	RRD	Ninh Binh	NA	Road	SPL I	Road No.59B
					SPL II	Road No.59B
665	RRD	Ninh Binh	NA	Road	SPL I	Ba Vuong - Binh Dong Road
666	RRD	Ninh Binh	NA	Road	SPL I	Thong Nhac Road (Road No.58)
					SPL I	Nhac - Duc Hau Road (Road No.58)
667	RRD	Ninh Binh	NA	Road	SPL I	Cau Dam - Khanh Thanh Road
					SPL II	Cau Dam - Khanh Thanh Road
668	RRD	Ninh Binh	NA	Road	SPL I	Thong Nhat Road (Road No.58)
669	RRD	Ninh Binh	Hoa Lu	Road	SPL I	Ninh Thang - Truong Yen Road
670	RRD	Ninh Binh	NA	Road	SPL II	Cong Go - Mua Thu Road
671	RRD	Ninh Binh	NA	Road	SPL II	Qui Hau - Do Muoi Road
672	RRD	Ninh Binh	Nho Quan	Road	SPL III	Inter Commune Road (Thuong Hoa-Thanh Lac-Son Thanh)
673	RRD	Ninh Binh	Gia Vien	Road	SPL III	Road to Vua Dinh Temple
674	RRD	Ninh Binh	Nho Quan	Road	SPL III	Road No.12C
675	RRD	Ninh Binh	Yen Mo	Road	SPL V	Khanh Ninh - Long market Road (PR480B)

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(13/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
676	RRD	Ninh Binh	Nho Quan	Electricity	SPL I	Quynh Luu Commune Electric Network
677	RRD	Ninh Binh	Gia Vien	Electricity	SPL I	Khanh Van Commune Electric Line
678	RRD	Ninh Binh	Kim Son	Electricity	SPL I	Hung Tien Commune Electric Line
679	RRD	Ninh Binh	Gia Vien	Electricity	SPL I	Da Han Trade Center Electric Network
680	RRD	Ninh Binh	Nho Quan	Electricity	SPL II	Xich Tho Commune Electric
681	RRD	Ninh Binh	Yen Khanh	Electricity	SPL II	Khanh Cu Commune Electric
682	RRD	Ninh Binh	Hoa Lu	Electricity	SPL II	Ninh Khanh Commune Electric
683	RRD	Ninh Binh	Kim Son	Electricity	SPL II	Thuong Kiem Commune Electric
684	RRD	Ninh Binh	Nho Quan	Electricity	SPL II	Quynh Luu Commune Electric Network
685	RRD	Ninh Binh	Kim Son	Water Supply	SPL I	Kim Son Water Supply System
686	RRD	Ninh Binh	Nho Quan	Irrigation	SPL V	Dong Dinh Pump Station
687	SE	Ninh Thuan	Phan Thiet	Road	SPL I	Town Central Road
688	SE	Ninh Thuan	NA	Road	SPL I	Tri Thuy - Phuong Cuu Road
			Ninh Hai - Thuan Bac		SPL V	District No.6 (Tri Thuy - Binh Nghia - Xom Bang)
689	SE	Ninh Thuan	Phan Thiet	Road	SPL II	Town Central Road (Extension)
690	SE	Ninh Thuan	Phan Thiet	Road	SPL II	Phan Rang-Phap Cham Dike Road
691	SE	Ninh Thuan	Bac Ai	Road	SPL III	Ninh Binh - Phuoc Binh Road
692	SE	Ninh Thuan	Bac Ai	Road	SPL IV	Phuoc Dai - Phuoc Trung Road
					SPL V	Phuoc Dai - Phuoc Trung Road
693	SE	Ninh Thuan	Ninh Son	Electricity	SPL I	Tan Lap-Ma Noi Electric Line
694	SE	Ninh Thuan	Ninh Hai	Electricity	SPL I	Khanh Hai Electric Line
695	SE	Ninh Thuan	NA	Electricity	SPL I	Lac Tien-Tu Thien-Son Hai Electric Line
696	SE	Ninh Thuan	NA	Electricity	SPL I	Hieu Thien-Vu Bon Electric Line
697	SE	Ninh Thuan	NA	Electricity	SPL II	Phuoc Nam-Nhi Ha-Phuoc Ha Commune Electric Line
698	SE	Ninh Thuan	NA	Electricity	SPL II	Lang Me-Xom Bang Commune Electric Line
699	SE	Ninh Thuan	NA	Electricity	SPL II	Xom Chieu-Bao An-Cong Thanh-Hai Commune Electric Line
700	SE	Ninh Thuan	Ninh Son	Electricity	SPL III	Ma Noi Commune Electric Line
701	SE	Ninh Thuan	Ninh Son	Electricity	SPL III	Hoa Son-My Son Commune Electric Line
702	SE	Ninh Thuan	Ninh Hai	Electricity	SPL III	Binh Son-Dong Hai Commune Electric Line
703	SE	Ninh Thuan	Ninh Son	Electricity	SPL V	Luong Son-Lan Son Electric Network
704	SE	Ninh Thuan	Ninh Hai	Water Supply	SPL V	My Tuong WSS
705	SE	Ninh Thuan	Ninh Phuoc	Irrigation	SPL III	Ninh Phuoc Irrigation System
706	SE	Ninh Thuan	Ninh Phuoc	Irrigation	SPL IV	Bau Ngu Reservoir
707	SE	Ninh Thuan	Ninh Phuoc	Irrigation	SPL V	Ta Ranh Irrigation
708	NE	Phu Tho	Phu Tho Town	Road	SPL I	Urban Road (Phu Tho Town)
709	NE	Phu Tho	Viet Tri City	Road	SPL I	Urban Road (Viet Tri City)
710	NE	Phu Tho	NA	Road	SPL I	Road P2
711	NE	Phu Tho	Viet Tri City	Road	SPL II	Urban Road in Viet Tri City
712	NE	Phu Tho	Phu Tho Town	Road	SPL II	Road in Phu Tho Township
713	NE	Phu Tho	NA	Road	SPL II	Road P5
714	NE	Phu Tho	Tam Nong	Road	SPL II	Provincial Road No.315
					SPL III	Road 315
					SPL IV	Provincial Road No.315
715	NE	Phu Tho	Thanh Thuy, Thanh Son	Road	SPL IV	Provincial Road No.317 (La Phu - Tinh Nhue)
716	NE	Phu Tho	Ha Hoa	Road	SPL IV	Provincial Road No.312
717	NE	Phu Tho	Yen Lap	Road	SPL IV	Station 312 - Hung Long Triway Road
718	NE	Phu Tho	Tam Nong	Road	SPL IV	Te Le Commune Bridge
719	NE	Phu Tho	Thanh Son	Road	SPL V	Van Mieu - Thuong Cuu Road
720	NE	Phu Tho	Cam Khe	Road	SPL V	Road to Ngo Xa cottage village
721	NE	Phu Tho	Yen Lap	Road	SPL V	Xuan An - My Lung Road
722	NE	Phu Tho	Tam Nong	Electricity	SPL I	Huong Nha Commune Electric Line
723	NE	Phu Tho	Song Thao	Electricity	SPL I	Tinh Cuong Commune Electric Line
724	NE	Phu Tho	Viet Tri City	Electricity	SPL I	Van Phu Commune Electric Line
725	NE	Phu Tho	Phu Tho Town	Electricity	SPL I	Thanh Minh Commune Electric Line
726	NE	Phu Tho	Tam Nong	Electricity	SPL I	Hong Da Commune Electric Line
727	NE	Phu Tho	Phong Chau	Electricity	SPL I	Cao Mai Commune Electric Line
728	NE	Phu Tho	Phong Chau	Electricity	SPL I	Gia Thanh Commune Electric Line
729	NE	Phu Tho	Doan Hung	Electricity	SPL II	Phuc Lai Commune Electric Line
730	NE	Phu Tho	Phu Ninh	Electricity	SPL II	Dinh Bo Commune Electric Line
731	NE	Phu Tho	Song Thao	Electricity	SPL II	Chuong Xa Commune Electric Line
732	NE	Phu Tho	Ha Hoa	Electricity	SPL II	Phuong Vien Commune Electric Line
733	NE	Phu Tho	Tam Nong	Electricity	SPL II	Phuong Thinh Commune Electric Line

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(14/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
734	NE	Phu Tho	Phu Ninh	Electricity	SPL II	Phu Nham Commune Electric Line
735	NE	Phu Tho	Tam Nong	Electricity	SPL II	Trung Nghia Commune Electric Line
736	NE	Phu Tho	Thanh Thuy	Electricity	SPL IV	Tu Vu Commune Electric Line
737	NE	Phu Tho	Song Thao	Electricity	SPL IV	Xuong Thinh-Tung Khe Commune Electric Line
738	NE	Phu Tho	Thanh Ba	Electricity	SPL IV	Nang Yen Commune Electric Line
739	NE	Phu Tho	Thanh Son	Electricity	SPL IV	Minh Dai-Thu Cuc Commune Electric Line
740	NE	Phu Tho	Yen Lap	Electricity	SPL V	Electric Network in 8 Communes in Yen Lap District
741	NE	Phu Tho	Phu Tho Town	Water Supply	SPL I	Phu Tho Water Supply System
742	NE	Phu Tho	Ha Hoa	Water Supply	SPL III	Ha Hoa WSS
743	NE	Phu Tho	Thanh Ba	Water Supply	SPL IV	Thanh Ba WSS
744	NE	Phu Tho	Song Thao	Water Supply	SPL IV	Song Thao WSS
745	NE	Phu Tho	Thanh Son	Water Supply	SPL V	Thanh Son Town WSS
746	NE	Phu Tho	Tam Nong	Irrigation	SPL III	Tam Nong Irrigation System
747	NE	Phu Tho	Thanh Thuy	Irrigation	SPL IV	Phuong Mao Reservoir ( 2nd Stage)
748	NE	Phu Tho	Thanh Ba	Irrigation	SPL IV	Hoang Hanh PS
749	NE	Phu Tho	Tam Nong	Irrigation	SPL IV	Hien Quan Irrigation System
750	NE	Phu Tho	Cam Khe	Irrigation	SPL V	Irrigation and Drainage System in 16 Communes
751	SCC	Phu Yen	Song Hinh	Road	SPL I	Road No.645 (Provincial Road No.1)
					SPL II	Road No.645 (Provincial Road No.1)
752	SCC	Phu Yen	Song Cau	Road	SPL II	Tam Giang-My Hai Road
					SPL V	Tam Giang-My Hai Road
753	SCC	Phu Yen	Song Hinh	Road	SPL IV	Song Hinh Bridge
754	SCC	Phu Yen	Son Hoa	Road	SPL V	Nga Hai Bridge (Son Nguyen Commune)
755	SCC	Phu Yen	Song Hinh	Road	SPL V	Road from Hoa An mini - industrial Zone to Dong Binh Ricepaper village
756	SCC	Phu Yen	Dong Xuan	Electricity	SPL I	Xuan Phuoc Commune Electric
757	SCC	Phu Yen	Song Hinh	Electricity	SPL II	Duc Binh Tay Commune Electric Line
758	SCC	Phu Yen	Son Hoa	Electricity	SPL II	Son Hoa Commune Electric Line
759	SCC	Phu Yen	Song Cau	Electricity	SPL II	Xuan Tho 2 Commune Electric Line
760	SCC	Phu Yen	Tuy An	Electricity	SPL II	An Phu-An Chan-An My Commune Electric Line
761	SCC	Phu Yen	Tuy Hoa	Electricity	SPL II	Hoai Hoi Commune Electric Line
762	SCC	Phu Yen	Song Hinh	Electricity	SPL III	Son Gian Commune Electric Line
763	SCC	Phu Yen	Song Cau	Electricity	SPL III	Xuat Binh Commune Electric Line
764	SCC	Phu Yen	Song Cau	Electricity	SPL IV	Trung Trinh-Vung Nha-Tu Nham Commune Electric Network
765	SCC	Phu Yen	Son Hoa	Water Supply	SPL III	Cung Son-Son Hoa WSS
766	SCC	Phu Yen	Phu Hoa	Water Supply	SPL IV	Phu Hoa WSS
767	SCC	Phu Yen	Song Hinh	Irrigation	SPL III	La Bach Irrigation System
			Phu Hoa		SPL V	La Bach Reservoir (Stage 2)
768	SCC	Phu Yen	Song Hinh	Irrigation	SPL IV	Buon Chao Dam
769	SCC	Phu Yen	Dong Xuan	Irrigation	SPL V	Pump and Irrigation canal of Tan Phuoc, Xuan Son Bac commune
770	NCC	Quang Binh	Dong Hoi Town	Road	SPL I	Township Road(Dong Hoi Town)
771	NCC	Quang Binh	NA	Road	SPL I	Provincial Road No.2
					SPL II	Provincial Road No.2
772	NCC	Quang Binh	NA	Road	SPL I	Road No.F325 Township
773	NCC	Quang Binh	Dong Hoi Town	Road	SPL II	Dong Hoi Township Road
774	NCC	Quang Binh	NA	Road	SPL II	Lam Nghiep & Hoi Bridges
775	NCC	Quang Binh	Dong Hoi	Road	SPL III	Urban Roads in Dong Hoi
776	NCC	Quang Binh	Quang Ninh	Road	SPL V	Hien - Xuan - An - Van Ninh Intercommune Road
777	NCC	Quang Binh	Quang Trach	Electricity	SPL I	Quang Luu Electric
778	NCC	Quang Binh	Bo Trach	Electricity	SPL I	Son Loc-Phu Dinh Electric
779	NCC	Quang Binh	Le Thuy	Electricity	SPL I	Kim Van-Truong Thuy Electric
780	NCC	Quang Binh	Quang Ninh	Electricity	SPL I	Bac Truong Xuan Electric
781	NCC	Quang Binh	Quang Trach	Electricity	SPL I	Quang Tung-Quang Chau-Quang Tien Electric
782	NCC	Quang Binh	Tuyen Hoa	Electricity	SPL I	Mai Phong-Tien Hoa Electric
783	NCC	Quang Binh	NA	Electricity	SPL II	Kim Thuy-Van Thuy-Truong Thuy Electric Network
784	NCC	Quang Binh	Quang Trach	Electricity	SPL II	Transformer 20KV of Quang Tung-Chau Tien
785	NCC	Quang Binh	Quang Trach	Electricity	SPL II	Quang Luu-Quang Trach Electric Network
786	NCC	Quang Binh	Minh Hoa	Electricity	SPL III	Dan Hoa Commune Electric Line
787	NCC	Quang Binh	Minh Hoa	Water Supply	SPL III	Minh Hoa WSS
788	NCC	Quang Binh	Bo Trach	Water Supply	SPL V	Viet Trung WSS
789	NCC	Quang Binh	Quang Ninh	Irrigation	SPL III	Upgrade Cam Li Reversoir
790	SCC	Quang Nam	Dien Ban	Road	SPL I	Road to Dien Nam-Dien Ngoc Industrial Zone
791	SCC	Quang Nam	Duy Xuyen	Road	SPL I	Kiem Lam - Can Truc Road

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(15/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
792	SCC	Quang Nam	Tan Ky	Road	SPL I	An Ha - Cay Trai An Ha Road
793	SCC	Quang Nam	Dai Loc	Road	SPL I	An Diem - A So Road
					SPL IV	An Diem - Ka Dang - A So Road
794	SCC	Quang Nam	NA	Road	SPL II	Tran Quy Cap Road
795	SCC	Quang Nam	Nui Thanh	Road	SPL II	An Tan - Ky Ha Road
796	SCC	Quang Nam	Hien	Road	SPL II	Trao - Doc Kien Road
797	SCC	Quang Nam	Tam Ky	Road	SPL III	National Road No.1-An Ha
798	SCC	Quang Nam	Phuoc Son	Road	SPL III	Phuoc Chanh - Phuoc Cong Road
799	SCC	Quang Nam	Dong Giang	Road	SPL IV	Commune road in Ba and Tu communes
800	SCC	Quang Nam	Tien Phuoc	Road	SPL V	Tien Tho - Tien Hiep Road
801	SCC	Quang Nam	Thang Binh	Electricity	SPL I	Binh Chanh Electric
802	SCC	Quang Nam	Dien Quang	Electricity	SPL I	Dien Quang Electric
803	SCC	Quang Nam	Que Son	Electricity	SPL I	Que Ninh Electric
804	SCC	Quang Nam	Dien Quang	Electricity	SPL II	Dien Quang Electric
805	SCC	Quang Nam	Thang Binh	Electricity	SPL II	Binh Duong Commune Electric Line
806	SCC	Quang Nam	Thang Binh	Electricity	SPL II	Binh Dinh Commune Electric Line
807	SCC	Quang Nam	Thang Binh	Electricity	SPL III	Binh Dinh Commune Electric Line
808	SCC	Quang Nam	Dien Ban	Electricity	SPL III	Dien Trung Commune Electric Line
809	SCC	Quang Nam	Thang Binh	Electricity	SPL III	Binh Lanh Commune Electric Line
810	SCC	Quang Nam	Thang Binh	Electricity	SPL IV	Binh Quy Commune Electric Line
811	SCC	Quang Nam	Hiep Duc	Electricity	SPL V	Hiep Duc Electric Network
812	SCC	Quang Nam	Thang Binh	Water Supply	SPL I	Thanh Binh Water Supply System
813	SCC	Quang Nam	Duy Xuyen	Water Supply	SPL IV	Nam Phuoc WSS
814	SCC	Quang Nam	Que Son	Water Supply	SPL V	Dong Phu Pump Station in Que Son and Bau Vang Reservoir
					SPL V	Dong phu - Que Son WSS (Phase II)
815	SCC	Quang Nam	Que Son, Thang Binh	Irrigation	SPL V	Ho Viet An Irrigation System
816	SCC	Quang Ngai	Son Tinh	Road	SPL I	Son Ha - Son Tay Road
817	SCC	Quang Ngai	Quang Ngai Town	Road	SPL I	La Ha - Thu Xa Road
					SPL II	La Ha - Thu Xa Road
818	SCC	Quang Ngai	NA	Road	SPL II	Quang Ngai - Co Luy Road
819	SCC	Quang Ngai	Son Tay	Road	SPL II	Ca Dao Pass
820	SCC	Quang Ngai	Nghia Hanh, Minh	Road	SPL II	Quang Ngai - Minh Long Road
821	SCC	Quang Ngai	Tra Bong	Road	SPL IV	Tra Bong - Tra Phong Road
822	SCC	Quang Ngai	Minh Long, Son Tra	Road	SPL IV	Long Mon - Son Ky Road
823	SCC	Quang Ngai	Tay Tra	Road	SPL V	Tra Phong - Tra Khe - Tra Bao Road
824	SCC	Quang Ngai	Minh Long	Road	SPL V	Long Mai - Long Hiep - Thanh An Road
825	SCC	Quang Ngai	Tu Nghia	Electricity	SPL I	Tu Nghia Electric
826	SCC	Quang Ngai	Son Tinh	Electricity	SPL I	Tinh Khe Commune Electric
827	SCC	Quang Ngai	Son Ha	Electricity	SPL I	Son Ha Distric Electric Network
828	SCC	Quang Ngai	Ly Son	Electricity	SPL II	Ly Son Island District Electric Network
829	SCC	Quang Ngai	Son Ha	Electricity	SPL II	Son Ha Distric Electric Network
830	SCC	Quang Ngai	Son Tinh	Electricity	SPL II	Tinh Tho Commune Electric Line
831	SCC	Quang Ngai	Binh Son	Electricity	SPL II	Binh Khuong Commune Electric Line
832	SCC	Quang Ngai	Duc Pho	Electricity	SPL II	Pho Cuong Commune Electric Line
833	SCC	Quang Ngai	Tra Bong	Electricity	SPL II	Tra Bong Commune Electric Line
834	SCC	Quang Ngai	Duc Pho	Water Supply	SPL III	Duc Pho WSS
835	SCC	Quang Ngai	Mo Duc	Water Supply	SPL IV	Mo Duc WSS
836	SCC	Quang Ngai	Son Ha	Irrigation	SPL III	Di Lang Irrigation
837	SCC	Quang Ngai	Nghia Hanh	Irrigation	SPL IV	Suoi Chi Irrigation System
838	SCC	Quang Ngai	Mo Duc	Irrigation	SPL IV	Ong Toi Reservoir
839	SCC	Quang Ngai	Son Ha	Irrigation	SPL V	Xa Dieu Commune Dam
840	NE	Quang Ninh	Yen Hung	Road	SPL I	Urban Road (Quang Yen Town)
841	NE	Quang Ninh	Dong Trieu	Road	SPL I	Duc Chinh - An Sinh Road
					SPL II	Duc Chinh - An Sinh Road
842	NE	Quang Ninh	Binh Lieu	Road	SPL I	Hoanh Mo - Dong Van Road
					SPL II	Hoanh Mo - Dong Van Road
					SPL III	Hoanh Mo-Dong Van Road
843	NE	Quang Ninh	Quang Uyen	Road	SPL II	Quang Yen Town Road, 5 Streets
844	NE	Quang Ninh	Quang Uyen	Road	SPL III	Quang Yen Urban Road
845	NE	Quang Ninh	Ha Long City	Electricity	SPL II	Transformer in Westen of Ha Long City
846	NE	Quang Ninh	Dong Trieu	Water Supply	SPL I	Dong Trieu Water Supply System
847	NE	Quang Ninh	Quang ha	Water Supply	SPL III	Quang Ha WSS

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta



## Appendix 1.2 Sub-Project (Infrastructure) List

(16/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
848	NCC	Quang Tri	Huong Hoa	Road	SPL I	Ta Rut - La Lay Road
					SPL II	Ta Rut - La Lay Road
849	NCC	Quang Tri	Dong Ha	Road	SPL I	Dong Ha within City Road
850	NCC	Quang Tri	NA	Road	SPL I	Provincial Road No.64
					SPL II	Provincial Road No.64
851	NCC	Quang Tri	Vinh Linh	Road	SPL I	Ho Xa - Cap Lai Road
					SPL II	Ho Xa - Cap Lai Road
852	NCC	Quang Tri	Dakrong	Road	SPL III	Central Road in Dakrong District
853	NCC	Quang Tri	Dakrong	Road	SPL IV	Ta Rut - A Vao Road
854	NCC	Quang Tri	Dakrong	Road	SPL IV	Ba Long Bridge
855	NCC	Quang Tri	Gio Linh	Road	SPL IV	Eastern 75 Provincial Road
856	NCC	Quang Tri	Gio Linh	Road	SPL IV	Provincial Road No.74
857	NCC	Quang Tri	Cam Lo	Road	SPL IV	Provincial Road No.11
858	NCC	Quang Tri	Huong Hoa	Road	SPL IV	Acess road to Ba Tang commune
859	NCC	Quang Tri	Vinh Linh	Road	SPL V	Ho Xa - Vinh Tu - Vinh Thai Road
860	NCC	Quang Tri	Cam Lo	Road	SPL V	Cam An - Cam Thanh Inter-commune Road
861	NCC	Quang Tri	Vinh Linh	Electricity	SPL I	Vinh Tu Commune Electric
862	NCC	Quang Tri	Cam Lo	Electricity	SPL I	Cam Tuyen Commune Electric
863	NCC	Quang Tri	Trieu Phong	Electricity	SPL I	Trieu Lang Commune Electric
864	NCC	Quang Tri	Gio Linh	Electricity	SPL II	Gio Linh Commune Electric Line
865	NCC	Quang Tri	Huong Hoa	Electricity	SPL II	Huong Hoa Commune Electric Line
866	NCC	Quang Tri	Gio Linh	Electricity	SPL II	Ba Long Commune Electric Line
867	NCC	Quang Tri	Gio Linh	Electricity	SPL III	Gio My Commune Electric Line
868	NCC	Quang Tri	Huong Hoa	Electricity	SPL III	Thanh Commune Electric Line
869	NCC	Quang Tri	Huong Hoa	Electricity	SPL III	A Tuc Commune Electric Line
870	NCC	Quang Tri	Trieu Phong	Electricity	SPL IV	Trieu Thuong Commune Electric Line
871	NCC	Quang Tri	Vinh Linh	Electricity	SPL IV	Electric Network in New Economic area in South of Ben Hai
872	NCC	Quang Tri	Huong Hoa	Electricity	SPL IV	Huong Hung Commune Electric Line
873	NCC	Quang Tri	Vinh Linh-Cam Lo	Electricity	SPL V	Vinh Linh and Cam Lo Electric Line
874	NCC	Quang Tri	Vinh Linh	Water Supply	SPL I	Ho Xa Water Supply System
875	NCC	Quang Tri	Huong Hoa	Water Supply	SPL I	Lao Bao Water Supply System
876	NCC	Quang Tri	Hai Lang	Water Supply	SPL III	Hai Lang WSS
877	NCC	Quang Tri	Cam Lo	Water Supply	SPL IV	Cam Lo WSS
878	NCC	Quang Tri	Vinh Linh	Water Supply	SPL IV	Ben Quan WSS
879	NCC	Quang Tri	Gio Linh	Water Supply	SPL V	Gio Linh Distric WSS
880	NCC	Quang Tri	Cam Lo	Irrigation	SPL IV	Nghia Hy Reservoir
881	NCC	Quang Tri	Huong Hoa	Irrigation	SPL IV	Lia Irrigation System
882	NCC	Quang Tri	Hai Lang	Irrigation	SPL V	Thac Heo Reservoir
883	MD	Soc Trang	Soc Trang Town	Road	SPL I	Mac Dinh Chi Road
884	MD	Soc Trang	My Xuyen	Road	SPL II	Provincial Road No.8
885	MD	Soc Trang	Long Phu	Road	SPL III	An Thanh 1-An Thanh 3 Road
886	MD	Soc Trang	My Tu	Road	SPL III	Thuan Hoa - Phu Tam Road
					SPL V	Thuan Hoa - Phu Tam road
887	MD	Soc Trang	Vinh Chau	Road	SPL IV	District Road No.31
888	MD	Soc Trang	Thanh Tri	Road	SPL IV	District Road No.17
889	MD	Soc Trang	Nga Nam	Road	SPL V	My Quoi - Roc La Road
890	MD	Soc Trang	Long Phu	Road	SPL V	District Road No.9
891	MD	Soc Trang	Ke Sach	Electricity	SPL I	Cai Tau-Ba Trinh-Trinh Phu Electric Network
892	MD	Soc Trang	My Tu	Electricity	SPL I	Ho Dac Kien Electric
893	MD	Soc Trang	Ke Sach	Electricity	SPL I	An Lac Tay Commune Electric
894	MD	Soc Trang	Vinh Chau	Electricity	SPL II	Hoa Lac Electric Network
895	MD	Soc Trang	Thanh Tri	Electricity	SPL III	Vinh Loi Commune Electric Line
896	MD	Soc Trang	My Xuyen	Electricity	SPL IV	Electric Network in 9 Communes in My Xuyen Distric
897	MD	Soc Trang	Ke Sach	Electricity	SPL V	An Lac Tay Commune Electric Line
898	MD	Soc Trang	My Xuyen	Water Supply	SPL IV	My Xuyen WSS
899	MD	Soc Trang	Thanh Tri	Water Supply	SPL V	Phu Loc Town WSS
900	NW	Son La	Son La Town	Road	SPL I	Tinh Uy - Ban Mong Road
					SPL I	Tinh Uy - Ban Mong Road
901	NW	Son La	Son La Town	Road	SPL I	Quyet Thang - Na Cong Road
902	NW	Son La	Mai Son, Song Ma	Road	SPL II	Road No.105, Mai Son - Song Ma Road
903	NW	Son La	Son La Town	Road	SPL III	Inter-commune Road Ban Moong-Muong Chanh

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(17/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
904	NW	Son La	Moc Chau	Road	SPL III SPL V	Van Ho - Xuan Nha Road Van Ho - Xuan Nha Road
905	NW	Son La	Moc Chau	Road	SPL IV	Xuan Nha - Tan Xuan Road
906	NW	Son La	Phu Yen	Road	SPL V	Muong Bang - Dong Nghe Road
907	NW	Son La	Son La Town	Electricity	SPL I	Phieng Tam Commune Electric Line
908	NW	Son La	Thuan Chau	Electricity	SPL I	Phieng Cha Electric Network
909	NW	Son La	Son La Town	Electricity	SPL II	Chieng Pha Commune Electric Line
910	NW	Son La	Mai Son	Electricity	SPL II	Co Noi Commune Electric Line
911	NW	Son La	Son La Town	Electricity	SPL II	Phieng Tam Commune Electric Line
912	NW	Son La	Son La Town	Electricity	SPL III	Chieng Pha Commune Electric Line
913	NW	Son La	Son La Town	Electricity	SPL III	Phieng Tam Commune Electric Line
914	NW	Son La	Thuan Chau	Electricity	SPL III	Chieng Mung-Tong Co-Phieng Tam-Phieng Pha and Co Noi Commune Electric Line
915	NW	Son La	Mai Son	Electricity	SPL III	Co Noi Commune Electric Line
916	NW	Son La	Thuan Chau	Electricity	SPL V	Co Ma Commune Electric Line
917	NW	Son La	Moc Chau	Water Supply	SPL III	Moc Chau Water Supply System
918	NW	Son La	Sop Cop	Water Supply	SPL V	Sop Cop Town WSS
919	SE	Tay Ninh	NA	Road	SPL I	Sa Mat-Military Head Quarter of the South
920	SE	Tay Ninh	Tay Ninh	Road	SPL II	Cau Gia-Binh Minh, Provincial Road No.3
921	SE	Tay Ninh	Tan Bien-Tan Chau	Road	SPL II SPL III	Road No.792 Road No.792 (Tan Bien-Tan Chau)
922	SE	Tay Ninh	Tan Chau	Electricity	SPL I	Tan Hoa-Suoi Ngo Electric Network
923	SE	Tay Ninh	Tay Ninh	Electricity	SPL II	Binh Minh Commune Electric Line
924	SE	Tay Ninh	Tan Bien	Electricity	SPL II	Tan Lap Commune Electric Line
925	SE	Tay Ninh	Trang Bang	Electricity	SPL II	An Thinh Commune Electric Line
926	SE	Tay Ninh	Go Dau	Water Supply	SPL III	Go Dau WSS
927	RRD	Thai Binh	NA	Road	SPL I	Road No.224
928	RRD	Thai Binh	NA	Road	SPL I	Gia Le - Ben Ho Road
929	RRD	Thai Binh	Tien Hai	Road	SPL I	Road No.39B - Tien Hai District Section
			Thai Thuy		SPL II	Road No.39B
					SPL III	Road No.39B
930	RRD	Thai Binh	Vu Thu, Hung Ha	Road	SPL II	Road No.223, Vu Thu - Hung Ha Road
					SPL II	Provincial Road No.223
			Vu Thu		SPL III	Road No.223
931	RRD	Thai Binh	Vinh Bao	Road	SPL II	Road No.17
932	RRD	Thai Binh	Vu Thu	Electricity	SPL I	Vu Thu Electric Network
933	RRD	Thai Binh	Tien Hai	Electricity	SPL I	Tien Hai Electric Network
934	RRD	Thai Binh	Kien Xuong	Electricity	SPL I	Kien Xuong Electric Network
935	RRD	Thai Binh	Tien Hai	Electricity	SPL II	Tien Hai Electric Network
936	RRD	Thai Binh	Hung Ha	Electricity	SPL II	Hung Ha Electric Network
937	RRD	Thai Binh	Thai Thuy	Electricity	SPL II	Diem Dien Electric Network
938	RRD	Thai Binh	Dong Hung	Electricity	SPL II	Dong Hung Electric Network
939	RRD	Thai Binh	Quynh Coi	Electricity	SPL II	Quynh Coi Electric Network
940	RRD	Thai Binh	Kien Xuong	Water Supply	SPL III	Kien Xuong WSS
941	NE	Thai Nguyen	Dinh Hoa	Road	SPL I	Road No.254 Cho Chu - Deo So Road
942	NE	Thai Nguyen	Thai Nguyen City	Road	SPL I	Road No.74B Phan Dinh Phung Road
943	NE	Thai Nguyen	Vo Nhai	Road	SPL I	Dinh Ca - Khuon Manh Road
944	NE	Thai Nguyen	Thai Nguyen City	Road	SPL II	CMT 8 Road
					SPL III	Cach Mang Thang Tam Road
945	NE	Thai Nguyen	Dinh Hoa	Road	SPL III	Phuc Chu - Bao Linh Road
946	NE	Thai Nguyen	Dinh Hoa	Road	SPL III	Na Guong - Dong Thinh Road
947	NE	Thai Nguyen	Dinh Hoa	Road	SPL IV	Tan Duong - Phuong Tien - Trung Hoi Road
948	NE	Thai Nguyen	Dai Tu	Road	SPL V	Hung Son - Tan Linh - Phu Lac - Duc Luong Road
949	NE	Thai Nguyen	Dai Tu	Road	SPL V	Phuc Luong - Minh Tien Inter-commune Road
950	NE	Thai Nguyen	Dinh Hoa	Electricity	SPL I	Dinh Hoa Electric Line
951	NE	Thai Nguyen	Dong Hy	Electricity	SPL I	Van Han Electric Line
952	NE	Thai Nguyen	Dinh Hoa	Electricity	SPL II	ATK Area Electric Line
953	NE	Thai Nguyen	Dai Tu	Electricity	SPL II	Ky Phu Commune Electric Line
954	NE	Thai Nguyen	Dong Hy	Electricity	SPL II	Van Han Commune Electric Line
955	NE	Thai Nguyen	Vo Nhai	Electricity	SPL II	Phu Thuong Commune Electric Line
956	NE	Thai Nguyen	Pho Yen	Electricity	SPL IV	Tan Phu Commune Electric Line
957	NE	Thai Nguyen	Phu Binh	Electricity	SPL V	Tan Khanh-Phu Binh Commune Electric Network

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(18/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
958	NE	Thai Nguyen	Dai Tu	Water Supply	SPL IV	Dai Tu WSS
959	NE	Thai Nguyen	Dong Hy	Water Supply	SPL V	Trai Cau Town WSS
960	NE	Thai Nguyen	Pho Yen, Phu Binh	Irrigation	SPL IV	Ho Nui Coc Irrigation Canal
961	NE	Thai Nguyen	Dinh Hoa	Irrigation	SPL IV	Ho Bao Linh irrigation Canal
962	NE	Thai Nguyen	Dong Hy	Irrigation	SPL V	Minh Lap-Hoa Thuong Irrigation System
963	NCC	Thanh Hoa	Ha Trung	Road	SPL I	Ha Trung - Ha Lai Road
964	NCC	Thanh Hoa	Tinh Gia	Road	SPL I	Urban Road Tinh Gia Town
965	NCC	Thanh Hoa	Quang Xuong	Road	SPL I	Quang Ngoc - Quang Vong - Quang Phuc Road
966	NCC	Thanh Hoa	NA	Road	SPL II	Phan Chu Trinh Road
967	NCC	Thanh Hoa	Quang Xuong	Road	SPL II	Dong Quang-Dong Van-Dong Vinh Roac
			Dong Son		SPL III	Dong Van-Dong Quang-Dong Vinh Roac
968	NCC	Thanh Hoa	Thieu Hoa	Road	SPL II	Thieu Phu - Thieu Quang Road
					SPL III	Thieu Phu-Thieu Quang Road
969	NCC	Thanh Hoa	Tinh Gia, Bim Son, Hoang Hoa	Road	SPL II	Tinh Gia - Bim Son - Hoang Hoa Road
970	NCC	Thanh Hoa	Yen Dinh	Road	SPL II	Dinh Lien - Yen Hung Road
					SPL III	Dinh Lien-Yen Hung Road
971	NCC	Thanh Hoa	Ha Trung	Road	SPL III	Xuan Thang - Van Xuan Road
972	NCC	Thanh Hoa	Cam Thuy	Road	SPL IV	Cam Van - Cam Yen - Cam Son Road
973	NCC	Thanh Hoa	Nhu Thanh	Road	SPL IV	Road from NR 45 to Yen Lac Commune
974	NCC	Thanh Hoa	NA	Road	SPL V	Road from Do Trap bridge to Hai Ninh Coast
975	NCC	Thanh Hoa	Quan Hoa	Road	SPL V	Hoi Xuan Town - Phu Nghiem Road
976	NCC	Thanh Hoa	Ngoc Lac	Electricity	SPL I	My Tan Ngoc Khe Electric Line
977	NCC	Thanh Hoa	Nhu Xuan	Electricity	SPL I	Hoa Quy Commune Electric Line
978	NCC	Thanh Hoa	Truong Xuan	Electricity	SPL I	Xuan Cam Electric line
979	NCC	Thanh Hoa	Thieu Hoa	Electricity	SPL II	Dong Khanh Trade Center Electric Line
980	NCC	Thanh Hoa	Yen Dinh	Electricity	SPL II	Yen Ninh Commune Electric Line
981	NCC	Thanh Hoa	Yen Dinh	Electricity	SPL II	Yen Hung Commune Electric Line
982	NCC	Thanh Hoa	Tinh Gia	Electricity	SPL II	Truong Lam Commune Electric Line
983	NCC	Thanh Hoa	Cam Thuy	Electricity	SPL II	Cam Long Commune Electric Line
984	NCC	Thanh Hoa	Tinh Gia	Electricity	SPL II	Dinh Hai Commune Electric Line
985	NCC	Thanh Hoa	Tho Xuan	Electricity	SPL IV	Quang Phu Commune Electric Line
986	NCC	Thanh Hoa	Ha Trung	Water Supply	SPL III	Ha Trung WSS
987	NCC	Thanh Hoa	Nhu Thanh	Water Supply	SPL IV	Nhu Thanh WSS
988	NCC	Thanh Hoa	Thuong Xuan	Water Supply	SPL IV	Thuong Xuan WSS
989	NCC	Thanh Hoa	Dong Son	Water Supply	SPL IV	Rung Thong WSS
990	NCC	Thanh Hoa	Tho Xuan	Water Supply	SPL IV	Tho Xuan WSS
991	NCC	Thanh Hoa	Hau Loc	Water Supply	SPL V	Hau Loc WSS
992	NCC	Thanh Hoa	Quang Xuong	Irrigation	SPL III	Quang Xuong Irrigation
993	NCC	Thanh Hoa	Hau Loc	Irrigation	SPL III	Quang Loc Irrigation
994	NCC	Thanh Hoa	Thach Thanh	Irrigation	SPL III	Vung Su Reservoir
995	NCC	Thanh Hoa	Cam Thuy	Irrigation	SPL IV	Duong Coc Reservoir
996	NCC	Thanh Hoa	Vinh Loc	Irrigation	SPL IV	Ben Da-Nui Trac PS
997	NCC	Thanh Hoa	Thach Thanh	Irrigation	SPL V	Long Dong Irrigation Canal
998	NCC	Thua-Thien Hue	NA	Road	SPL I	Provincial Road No.68B
					SPL II	Provincial Road No.68
999	NCC	Thua-Thien Hue	NA	Road	SPL I	Provincial Road No.4
					SPL II	Provincial Road No.4
1000	NCC	Thua-Thien Hue	NA	Road	SPL I	Cong Chem - Cua Hau Road
					SPL II	Cong Chem - Cua Hau Road
1001	NCC	Thua-Thien Hue	Phu Vang	Road	SPL V	Phu Xuan - Phu Da Inter-Commune Road
1002	NCC	Thua-Thien Hue	Huong Tra	Electricity	SPL I	Hai Duong Commune Electric Network
1003	NCC	Thua-Thien Hue	Phu Vang	Electricity	SPL I	Phu Dien Commune Electric Network
1004	NCC	Thua-Thien Hue	Phu Loc	Electricity	SPL I	Loc Vinh Commune Electric Network
1005	NCC	Thua-Thien Hue	Phu Vang	Electricity	SPL II	Vinh Ha Commune Electric Line
1006	NCC	Thua-Thien Hue	Huong Thuy	Electricity	SPL II	Duong Hoa War Zone Electric Line
1007	NCC	Thua-Thien Hue	Phu Vang	Electricity	SPL II	Vinh Thai Commune Electric Line
1008	NCC	Thua-Thien Hue	Huong Tra	Electricity	SPL II	Binh Dien Commune Electric Line
1009	NCC	Thua-Thien Hue	Phu Loc	Electricity	SPL II	Vinh My Commune Electric Line
1010	NCC	Thua-Thien Hue	Phong Dien	Electricity	SPL II	Bac Hien Commune Electric Line
1011	NCC	Thua-Thien Hue	Phu Loc	Electricity	SPL V	Electric Line in area 3 of Phu Loc Distric

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(19/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
1012	NCC	Thua-Thien Hue	NA	Water Supply	SPL I	Chan My Water Supply System
1013	NCC	Thua-Thien Hue	Phu Bai	Water Supply	SPL III	Phu Bai WSS
1014	NCC	Thua-Thien Hue	Nam Dong	Water Supply	SPL V	Khe Tre WSS
1015	NCC	Thua-Thien Hue	Phong Dien-Quang	Irrigation	SPL III	Phong Chuong-Cua Lac Irrigation System
1016	NCC	Thua-Thien Hue	Phong Dien	Irrigation	SPL V	Dien Hoa-Dien Hai Irrigation System
1017	MD	Tien Giang	Cho Gao Town	Road	SPL I	Cho Gao Town Road
1018	MD	Tien Giang	NA	Road	SPL I	Provincial Road No.867(Tan Phuoc-Chau Thanh)
1019	MD	Tien Giang	NA	Road	SPL II	Provincial Road No.871
1020	MD	Tien Giang	Go Cong	Road	SPL III	Provincial Road No.862
1021	MD	Tien Giang	NA	Electricity	SPL I	Phu Tan Electric
1022	MD	Tien Giang	Tan Thoi	Electricity	SPL I	Tan Thoi Electric
1023	MD	Tien Giang	NA	Electricity	SPL I	Long Hung Electric
1024	MD	Tien Giang	NA	Electricity	SPL II	Tan Thoi Commune Electric Line
1025	MD	Tien Giang	NA	Electricity	SPL II	Thanh My Commune Electric Line
1026	MD	Tien Giang	NA	Electricity	SPL II	Binh Xuan Commune Electric Line
1027	MD	Tien Giang	Cai Be	Electricity	SPL III	My Loi A Commune Electric Line
1028	MD	Tien Giang	Cai Lay	Electricity	SPL III	Tan Hoi Commune Electric Line
1029	MD	Tien Giang	Chau Thanh	Electricity	SPL III	Diem Hy Commune Electric Line
1030	MD	Tra Vinh	Tra Vinh Township	Road	SPL I	Urban Road of Tra Vinh Township, 30Rds.
1031	MD	Tra Vinh	Tra Vinh Township	Road	SPL II	Urban Road of Tra Vinh Township, 28Rds.
1032	MD	Tra Vinh	Tieu Can	Road	SPL II	Provincial Road No.912
					SPL III	Provincial Road No.912
					SPL IV	Provincial Road No.912
1033	MD	Tra Vinh	Cau Ngang	Road	SPL III	Thanh Son - Hiep My Dong Road
1034	MD	Tra Vinh	Cang Long, Chau	Road	SPL IV	District Road No.8 & At Ech Bridge
1035	MD	Tra Vinh	Cau Ke	Road	SPL IV	Bo Xe and Thanh Phu bridges in Road No. 911
1036	MD	Tra Vinh	Cang Long, Tra Cu, Tieu Can	Road	SPL V	Acess roads to center of Huyen Hoi, Kim Son, Tan Hoa, Dai Phuc communes
1037	MD	Tra Vinh	NA	Electricity	SPL I	Ham Giang Electric Network
1038	MD	Tra Vinh	NA	Electricity	SPL II	Ham Giang Electric Network
1039	MD	Tra Vinh	NA	Electricity	SPL III	Cau Quan Commune Electric Line
1040	MD	Tra Vinh	Duyen Hai	Electricity	SPL III	Long Toan Commune Electric Line
1041	MD	Tra Vinh	Cau Ke	Electricity	SPL III	Hoa An Commune Electric Line
1042	MD	Tra Vinh	Cang Long	Electricity	SPL III	My Cam Commune Electric Line
1043	MD	Tra Vinh	Tieu Can	Water Supply	SPL IV	Cau Quan WSS
1044	MD	Tra Vinh	Cau Ke	Water Supply	SPL IV	Cau Ke WSS
1045	MD	Tra Vinh	Cau Ngang	Water Supply	SPL V	Widenning and Upgrading Treament Station in My Long-Cau Ngang District
1046	MD	Tra Vinh	Cang Long	Irrigation	SPL IV	Khu B1-Lang The Irrigation Canal
1047	MD	Tra Vinh	Chau Thanh	Irrigation	SPL V	Lang The Irrigation Canal
1048	NE	Tuyen Quang	Ham Yen-Chiem Hoa	Road	SPL I	Provincial Road 176 (km0-km23.5)
			Chiem Hoa-Na Hang		SPL II	Provincial Road 176 (km39-km58.055)
					SPL III	Provincial Road 176
1049	NE	Tuyen Quang	Ham Yen	Road	SPL III	Khau Lang - Cao Duong Road
1050	NE	Tuyen Quang	Chiem Hoa	Road	SPL IV	Phuc Thinh - Trung Ha Road
1051	NE	Tuyen Quang	Na Hang	Road	SPL IV	Thuong Lam - Lang Can Road
1052	NE	Tuyen Quang	Chiem Hoa	Road	SPL V	Duc Thinh - Hoa An Road
1053	NE	Tuyen Quang	Yen Son	Road	SPL V	Tu Quan Quy Quan Road
1054	NE	Tuyen Quang	Tuyen Quan Town	Electricity	SPL I	Tuyen Quang Town-Dao Vien-Dong Da Electric Network
1055	NE	Tuyen Quang	Yen Son	Electricity	SPL I	Trung Son-Trung Yen Electric Network
1056	NE	Tuyen Quang	Chiem Hoa	Electricity	SPL II	35KV-Ngoc Hoi-Kien Dai Electric Line
1057	NE	Tuyen Quang	Chiem Hoa	Electricity	SPL II	35KV-Quang Linh-Tri Phi-Linh Phu Electric Line
1058	NE	Tuyen Quang	Chiem Hoa	Electricity	SPL III	Vinh Quang -Binh Nhan Transfomer and Electric Line
1059	NE	Tuyen Quang	Ham Yen	Electricity	SPL III	Tan Yen-Bach Nha Transfomer and Electric Line
1060	NE	Tuyen Quang	Son Duong	Electricity	SPL IV	Electric Line and Transfomer in Binh Yen Commune
1061	NE	Tuyen Quang	Yen Son	Electricity	SPL V	Construction TFS Station in Hung Loi-Trung Minh Commune
1062	NE	Tuyen Quang	Tuyen Hoa	Irrigation	SPL IV	Minh An Pump Station
1063	NE	Tuyen Quang	Chiem Hoa	Irrigation	SPL V	Irrigation System in Yen Lap Commune
1064	MD	Vinh Long	NA	Road	SPL I	Mau Than Road
1065	MD	Vinh Long	NA	Road	SPL I	Hung Dao Vuong Road
1066	MD	Vinh Long	Tam Binh, Tra On	Road	SPL II	Provincial Road No.33(Tam Binh-Tra On)
1067	MD	Vinh Long	Vung Liem, Long Ho	Road	SPL II	Provincial Road No.31(Vung Liem-Long Ho)

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.2 Sub-Project (Infrastructure) List

(20/20)

No. for Infrastructure	Region	Province	District	Sector	Phase	Sub-Project
1068	MD	Vinh Long	Long Ho	Road	SPL III	Long Ho-Cai Ngang Road
1069	MD	Vinh Long	Long Ho	Electricity	SPL I	Phu Duc Electric
1070	MD	Vinh Long	Binh Minh	Electricity	SPL I	KhanhTiet-Khanh Tu-Thuan An Electric Network
1071	MD	Vinh Long	Vung Liem	Electricity	SPL II	Trung An-Aa Kinh Commune Electric Line
1072	MD	Vinh Long	Vung Liem	Electricity	SPL II	Trung An Phu Cuong Commune Electric Line
1073	MD	Vinh Long	Tra On	Water Supply	SPL III	Tra On WSS
1074	MD	Vinh Long	Tam Binh	Water Supply	SPL V	Cai Ngang WSS
1075	MD	Vinh Long	Tra On	Irrigation	SPL V	Rach Tra-Thien My Irrigation Canal
1076	RRD	Vinh Phuc	Vinh Yen City	Road	SPL I	Urban Road (Vinh Yen Town)
1077	RRD	Vinh Phuc	NA	Road	SPL I	Luc Ha - Tay Thien Road
1078	RRD	Vinh Phuc	Yen Lac	Road	SPL I	Quan Tien - Lung Ha Road
1079	RRD	Vinh Phuc	Phuc Yen	Road	SPL I	Road to Hai Ba Trung Temple
1080	RRD	Vinh Phuc	Vinh Tuong	Road	SPL II	Road No.304(Vu Di - Hoi Thinh)
					SPL III	Road No.304 (Hoi Thinh-Vu Di-Vinh Thinh)
1081	RRD	Vinh Phuc	Binh Xuyen	Road	SPL II	Road around Dai Lai Lake
1082	RRD	Vinh Phuc	Binh Xuyen	Road	SPL II	Trung My - Huong Canh Road
					SPL III	Huong Canh-Trung My Road
1083	RRD	Vinh Phuc	Lap Thach	Road	SPL II	Quang Yen - Phu Hau Road
1084	RRD	Vinh Phuc	Vinh Tuong	Road	SPL II	Vu Di-Tu Trung-Dai Tu Road
					SPL III	Vu Di-Dai Tu Road
1085	RRD	Vinh Phuc	TC-GB	Road	SPL III	Road No.303B
1086	RRD	Vinh Phuc	Lap Thach	Road	SPL IV	Ngoc My - Quang Son Roac
1087	RRD	Vinh Phuc	Binh Xuyen	Road	SPL V	Thien Ke - Trung My - Thanh Lanh dike Road
1088	RRD	Vinh Phuc	Lap Thach	Electricity	SPL I	Quang Son Electric Line
1089	RRD	Vinh Phuc	Lap Thach	Electricity	SPL I	Xuan Hoa Electric Line
1090	RRD	Vinh Phuc	Yen Lac Town	Electricity	SPL I	Yen Lac Town Electric Line
1091	RRD	Vinh Phuc	Tam Dao	Electricity	SPL II	Huong Dao Commune Electric Line
1092	RRD	Vinh Phuc	Vinh Tuong	Electricity	SPL II	NguKiem-VinhThinh Commune Electric Line
1093	RRD	Vinh Phuc	Tam Dao	Electricity	SPL II	Bo Ly Commune Electric Line
1094	RRD	Vinh Phuc	Lap Thach	Electricity	SPL IV	Electric Network in 4 Communes in Lap Thach Distric
1095	RRD	Vinh Phuc	Tam Duong	Electricity	SPL IV	Electric Network in 6 Communes in Tam Duong District
1096	RRD	Vinh Phuc	Yen Lac	Water Supply	SPL III	Yen Lac WSS
1097	RRD	Vinh Phuc	Vinh Tuong	Water Supply	SPL V	Vinh Tuong WSS
1098	RRD	Vinh Phuc	Lap Thach	Irrigation	SPL V	Don Nhan Irrigation System
1099	NE	Yen Bai	Ha Giang Town	Road	SPL I	Nguyen Thai Hoc Road
					SPL II	Nguyen Thai Hoc Road
1100	NE	Yen Bai	Tran Yen	Road	SPL I	Yen Bai - Khe Sang Road
					SPL I	Yen Bai - Khe Sang Road
					SPL II	Yen Bai - Khe Sang(Yen Bai - Mau A)
					SPL III	Yen Bai Khe Sang Road
					SPL IV	Yen Bai - Khe Sang Road
1101	NE	Yen Bai	Tran Yen	Road	SPL II	Huong Ly - Van Phu Road
1102	NE	Yen Bai	Tram Tau	Road	SPL II	Van Chan - Tram Tau Road
1103	NE	Yen Bai	Van Yen	Road	SPL V	Dong An - Phong Du Ha Road
1104	NE	Yen Bai	Yen Binh	Road	SPL V	Hoang Thi Road
1105	NE	Yen Bai	Van Chan	Electricity	SPL I	Nghia Tam Commune Electric Line
1106	NE	Yen Bai	Van Chan	Electricity	SPL II	Nghia Tam Commune Electric Line
1107	NE	Yen Bai	Tram Tau	Electricity	SPL III	Phinh Ho Commune Electric Line
1108	NE	Yen Bai	Tran Yen	Electricity	SPL III	Cuong Thinh Commune Electric Line
1109	NE	Yen Bai	Tran Yen	Electricity	SPL III	Minh Quan Commune Electric Line
1110	NE	Yen Bai	Van Chan	Electricity	SPL III	Nghia Loi Commune Electric Line
1111	NE	Yen Bai	Van Chan	Electricity	SPL III	Tan Thinh Commune Electric Line
1112	NE	Yen Bai	Luc Yen	Electricity	SPL V	Lam Thuong Electric Network
1113	NE	Yen Bai	Van Yen	Water Supply	SPL III	Mau A Water Supply System
1114	NE	Yen Bai	Tram Tau	Water Supply	SPL V	Tram Tam Town WSS
1115	NE	Yen Bai	Van Chan	Irrigation	SPL V	Khe The Irrigation System

Region: NE-North East Mountainous, NW-North West Mountainous, RRD-Red River Delta

NCC-North Central Coast, SCC-South Central Coast, CH-Central Highland, SE-South East, MD-Mekong Delta

## Appendix 1.3 Number of Sub-Projects and Infrastructures by Province

(1/2)

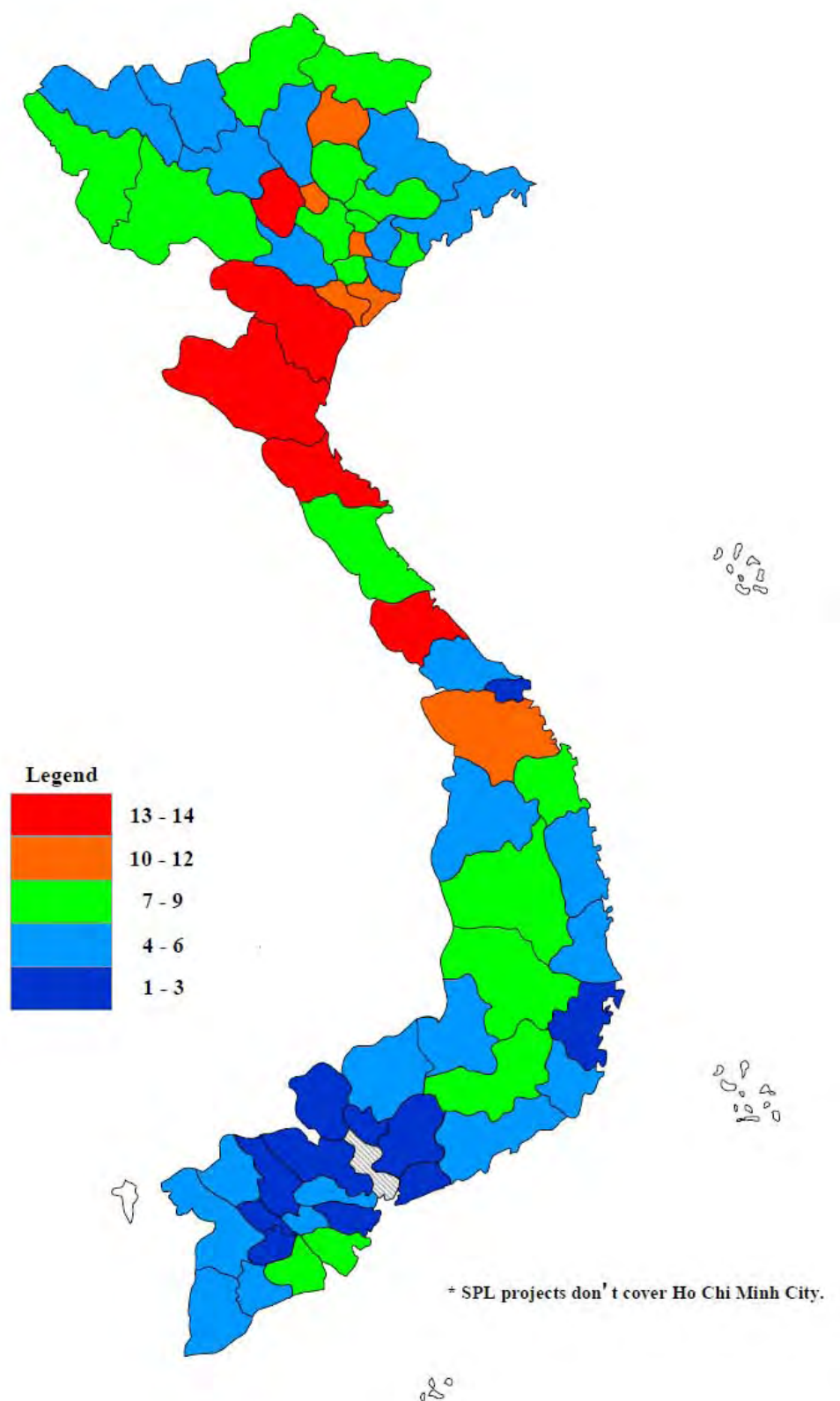
Province	Road		Electricity Distribution		Water Supply		Irrigation		Total	
	sub-project	infra-structure	sub-project	infra-structure	sub-project	infra-structure	sub-project	infra-structure	sub-project	infra-structure
An Giang	4	4	16	16	1	1	0	0	21	21
Ba Ria Vung Tau	3	2	4	4	0	0	0	0	7	6
Bac Giang	10	8	23	23	1	1	1	1	35	33
Bac Kan	13	11	5	5	1	1	3	3	22	20
Bac Lieu	5	4	6	6	1	1	1	1	13	12
Bac Ninh	10	9	8	8	1	1	0	0	19	18
Ben Tre	5	3	5	5	0	0	0	0	10	8
Binh Dinh	6	6	11	11	1	1	4	4	22	22
Binh Duong	1	1	4	4	0	0	0	0	5	5
Binh Phuoc	7	4	7	7	0	0	0	0	14	11
Binh Thuan	7	5	15	15	0	0	0	0	22	20
Ca Mau	6	4	6	6	2	4	1	1	15	15
Can Tho	4	3	0	0	0	0	0	0	4	3
Cao Bang	11	8	13	13	0	0	1	1	25	22
Da Nang	2	2	7	7	0	0	0	0	9	9
Dac Lak	10	9	9	9	2	2	5	5	26	25
Dak Nong	4	4	4	4	0	0	2	2	10	10
Dien Bien	11	7	1	1	3	3	1	1	16	12
Dong Nai	2	2	0	0	0	0	0	0	2	2
Dong Thap	4	3	8	8	1	1	1	1	14	13
Gia Lai	8	7	11	11	2	2	3	3	24	23
Ha Giang	11	8	5	5	3	3	1	1	20	17
Ha Nam	12	9	11	11	0	0	0	0	23	20
Ha Noi (Ha Tay)	11	8	8	8	1	1	0	0	20	17
Ha Tinh	17	14	26	26	6	5	7	7	56	52
Hai Duong	8	6	8	8	1	1	0	0	17	15
Hai Phong	9	8	1	1	1	1	0	0	11	10
Hau Giang	1	1	4	4	1	1	0	0	6	6
Hoa Binh	8	4	11	11	0	0	2	2	21	17
Hung Yen	11	10	7	7	0	0	0	0	18	17
Khanh Hoa	2	2	8	8	0	0	0	0	10	10
Kien Giang	5	5	4	4	1	1	0	0	10	10
Kon Tum	6	4	7	7	3	3	2	2	18	16
Lai Chau	7	6	7	7	3	4	1	1	18	18
Lam Dong	8	7	11	11	2	2	2	2	23	22
Lang Son	9	6	8	8	1	1	1	1	19	16
Lao Cai	11	6	14	14	2	2	2	2	29	24
Long An	4	3	3	3	0	0	0	0	7	6
Nam Dinh	14	11	15	15	0	0	0	0	29	26
Nghe An	15	13	13	13	4	4	4	4	36	34
Ninh Binh	15	12	9	9	1	1	1	1	26	23
Ninh Thuan	8	6	11	11	1	1	3	3	23	21
Phu Tho	16	14	19	19	5	5	5	5	45	43
Phu Yen	7	5	9	9	2	2	4	3	22	19
Quang Binh	8	7	10	10	2	2	1	1	21	20
Quang Nam	12	11	11	11	4	3	1	1	28	26
Quang Ngai	10	9	9	9	2	2	4	4	25	24
Quang Ninh	8	5	1	1	2	2	0	0	11	8
Quang Tri	16	13	13	13	6	6	3	3	38	35
Soc Trang	9	8	7	7	2	2	0	0	18	17
Son La	9	7	10	10	2	2	0	0	21	19

### Appendix 1.3 Number of Sub-Projects and Infrastructures by Province

(2/2)

Province	Road		Electricity Distribution		Water Supply		Irrigation		Total	
	sub-project	infra-structure	sub-project	infra-structure	sub-project	infra-structure	sub-project	infra-structure	sub-project	infra-structure
Tay Ninh	4	3	4	4	1	1	0	0	9	8
Thai Binh	9	5	8	8	1	1	0	0	18	14
Thai Nguyen	10	9	8	8	2	2	3	3	23	22
Thanh Hoa	16	13	10	10	6	6	6	6	38	35
Thua-Thien Hue	7	4	10	10	3	3	2	2	22	19
Tien Giang	4	4	9	9	0	0	0	0	13	13
Tra Vinh	9	7	6	6	3	3	2	2	20	18
Tuyen Quang	8	6	8	8	0	0	2	2	18	16
Vinh Long	5	5	4	4	2	2	1	1	12	12
Vinh Phuc	15	12	8	8	2	2	1	1	26	23
Yen Bai	11	6	8	8	2	2	1	1	22	17
Total	518	408	526	526	96	97	85	84	1225	1115

### Appendix 3.1 Distribution of the Number of Infrastructures



**Road Sector**



## Appendix 3.2 Record of Receiving the Replies to the Questionnaires

(1/3)

Province	Road Sector				Electricity Sector				Water Supply Sector				Irrigation Sector			
	Total.Sub-project.No	Total Rep	Sub-project III-V	Reply III-V	Total.Sub-project.No	Total Rep	Sub-project III-V	Reply III-V	Total.Sub-project.No	Total Rep	Sub-project III-V	Reply III-V	Total.Sub-project.No	Total Rep	Sub-project III-V	Reply III-V
An Giang	4	4	1	1	16	4	4	4	1	1	1	1	0	0	0	0
Ba Ria V.Tau	3	3	1	1	4		4						0	0	0	0
Bac Giang	10	7	2	2	23	5	5	5	1	1	1	1	1	1	1	1
Bac Kan	13	8	7	7	5		3		1		1		3		3	
Bac Lieu	5	5	3	3	6		4		1	1	1	1	1		1	
Bac Ninh	10	1	2	1	8		0	0	1		1		0	0	0	0
Ben Tre	5	2	2	2	5	3	3	3					0	0	0	0
Binh Dinh	6	6	1	1	11		5		1	1	1	1	4	3	4	3
Binh Duong	1		0	0	4		2						0	0	0	0
Binh Phuoc	6	5	2	2	7	5	4	4					0	0	0	0
Binh Thuan	7	6	2	1	15		4						0	0	0	0
Ca Mau	5	2	2	2	6	6	4	4	2	2	2	2	1	1	1	1
Can Tho	4	4	0	0	0	0	0	0					0	0	0	0
Cao Bang	11	9	7	6	13	13	10	10					1	1	1	1
Da Nang	2	2	0	0	7		4						0	0	0	0
Dac Lak	10	10	6	6	9	3	3	3	2	2	1	1	5	5	5	5
Dak Nong	4	4	4	4	4		2						2		2	
Dien Bien	11	11	8	8	1		0	0	3	3	3	3	1	1	1	1
Dong Nai	2	2	1	1	0	0	0	0					0	0	0	0
Dong Thap	4	4	2	2	8		4		1	1	1	1	1		1	
Gia Lai	7	7	4	4	8	1	4	1	2	1	1	1	3	2	3	2
Ha Giang	11	3	5	3	5	2	3	2	3	3	2	2	1	1	1	1
Ha Nam	12	4	3	2	11		0	0					0	0	0	0
Ha Noi	12		2		8		0	0	1		1		0	0	0	0
Ha Tinh	17	17	8	8	26		5		5	3	4	2	7	1	7	1
Hai Duong	8	6	1	1	8		0	0	1	1	1	1	0	0	0	0

## Appendix 3.2 Record of Receiving the Replies to the Questionnaires

(2/3)

Province	Road Sector				Electricity Sector				Water Supply Sector				Irrigation Sector			
	Total.Sub-project.No	Total Rep	Sub-project III-V	Reply III-V	Total.Sub-project.No	Total Rep	Sub-project III-V	Reply III-V	Total.Sub-project.No	Total Rep	Sub-project III-V	Reply III-V	Total.Sub-project.No	Total Rep	Sub-project III-V	Reply III-V
Hai Phong	9	9	2	2	1		0	0	1	1	1	1	0	0	0	0
Hau Giang	1		1		4		1		1	1	1	1	0	0	0	0
Hoa Binh	7	7	3	3	11	4	4	3					2	2	2	2
Hung Yen	11		4		7		0	0					0	0	0	0
Khanh Hoa	2	2	0	0	8		3						0	0	0	0
Kien Giang	5	5	2	2	4		1		1	1	1	1	0	0	0	0
Kon Tum	6	6	2	2	6		4		3		3		2		2	
Lai Chau	7	7	5	5	4	2	2	2	3	3	3	3	1	1	1	1
Lam Dong	8	8	3	3	11		4		2	2	1	1	2	0	2	1/0
Lang Son	9	9	5	5	8	1	4	1	1	1	1	1	1	1	1	1
Lao Cai	11	11	6	6	17	15	5	5	2	2	2	2	2	2	2	2
Long An	4		0	0	3		0	0					0	0	0	0
Nam Dinh	14	11	3	3	15		0	0					0	0	0	0
Nghe An	15	4	8	4	13		7		4	1	3	1	4		4	
Ninh Binh	15	9	4	3	9		0	0	1		0		1		1	
Ninh Thuan	8	7	4	4	11		4		1		1		3	3	3	3
Phu Tho	16	16	9	9	19	5	5	5	5	5	4	4	5	5	5	5
Phu Yen	7	7	4	4	9	1	3	1	2	2	2	2	4	1	4	1
Quang Binh	8	8	2	2	10	1	1	1	2	2	2	2	1	1	1	1
Quang Nam	12	12	5	5	11		5		4		3		1		1	
Quang Ngai	10	10	4	4	9		0		2	2	2	2	4	4	4	4
Quang Ninh	8	8	2	2	1		0	0	2	2	1	1	0	0	0	0
Quang Tri	16	15	9	9	13	8	7	7	6	6	4	4	3		3	
Soc Trang	9	5	7	5	7	4	3	3	2	2	2	2	0	0	0	0
Son La	9		5		10		5		2	2	2	2	0	0	0	0
Tay Ninh	4		1		4		0	0	1	1	1	1	0	0	0	0

## Appendix 3.2 Record of Receiving the Replies to the Questionnaires

(3/3)

Province	Road Sector				Electricity Sector				Water Supply Sector				Irrigation Sector			
	Total.Sub-project.No	Total Rep	Sub-project III-V	Reply III-V	Total.Sub-project.No	Total Rep	Sub-project III-V	Reply III-V	Total.Sub-project.No	Total Rep	Sub-project III-V	Reply III-V	Total.Sub-project.No	Total Rep	Sub-project III-V	Reply III-V
Thai Binh	9		2		8		0	0	1		1		0	0	0	0
Thai Nguyen	10	7	6	4	8		2		2	2	2	2	3		3	
Thanh Hoa	16	6	8	4	10		1		6	2	6	2	6	2	6	2
Thua-Thien Hue	7	7	1	1	10		1		3	3	2	2	2	1	2	1
Tien Giang	4	3	1	1	9		3						0		0	
Tra Vinh	9	7	6	6	6		4		3	2	3	2	2	1	2	1
Tuyen Quang	8	6	6	4	8		4						2		2	
Vinh Long	5	5	1	1	4		0		2	2	2	2	1		1	
Vinh Phuc	15		6		8	3	0	0	2	2	0	0	1	1	1	1
Yen Bai	10	6	4	4	8	6	6	6	2	2	2	2	1	1	1	1
<b>Total</b>	<b>512</b>		<b>217</b>		<b>522</b>		<b>166</b>		<b>96</b>		<b>80</b>		<b>85</b>		<b>85</b>	
Replied (No.of project)	355	355	175	175	92	92	70	70	71	71	60	60	42	42	42	42
Replied (%)	69.34%		80.65%		17.62%		42.17%		73.96%		75.00%		49.41%		49.41%	

## Appendix 3.3 Questionnaire

### I. General Information

Name of Liaison with  
DPI/MPI: \_\_\_\_\_.

SPL Phase:				Name of the Project:			
Province:			District/City:			Commune:	
Organization in Charge:	Project Owner	Operation, Maintenance and Management	Name of the Organization: - Address: - Tel / Fax: - E-mail:				
Date:							
Respondent:							
Cell phone #:							
Year of Construction Works Commencement:				Project Owner in the Implementation stage:			
Year of Construction Works Completion:				Material Cost (BVND):			
Construction Cost (BVND):				Domestic Fund (BVND):			
Total investment Cost (BVND):				JBIC Fund (BVND):			

## II. Questionnaire about Operation and Maintenance (O&M)

O&M General:		Capacity of O&M Organization:	
Date transferred to O&M:	<ul style="list-style-type: none"> <li>- Day</li> <li>- Month</li> <li>- Year</li> </ul>	Established year :	
Name of O&M organization:		Total staffs:	
Type of organization:	Co / Co-operative	Of which;	<ul style="list-style-type: none"> <li>- Engineers:</li> <li>- Technicians :</li> <li>- Major Equipment:</li> </ul>
Maintenance:		Operation and Effect Indicator:	
Major repair item & Date:		Annual Average Daily Traffic (AADT) before the construction	<ul style="list-style-type: none"> <li>- Total: Passenger Car Unit (PCU)</li> <li>- Year:</li> <li>- Place:</li> </ul>
Small repair item & Times:			
Replaced item:		Annual Average Daily Traffic (AADT) after the construction	<ul style="list-style-type: none"> <li>- Total: Passenger Car Unit (PCU)</li> <li>- Year:</li> <li>- Place:</li> </ul>
Maintenance Activities		Accessibility to Market :	<ul style="list-style-type: none"> <li>- Time Spent Before / After(hr):</li> <li>- Name of the Market:</li> <li>- Location (From/To):</li> </ul>
Having maintenance plan:	Yes/No <ul style="list-style-type: none"> <li>- Every year</li> <li>- 5 years</li> <li>- Others (.....)</li> </ul>		
Having financial plan for maintenance:	Yes/No		
Finance resources	Mill Dong		
Of which:	<ul style="list-style-type: none"> <li>- State budget % of demand</li> <li>- Own budget % of demand</li> <li>- Others % of demand</li> </ul>	Accessibility to School:	<ul style="list-style-type: none"> <li>- Time Spent Before / After(hr):</li> <li>- Name of the School:</li> <li>- Location (From/To):</li> </ul>
Difficulties Facing During O&M:		Difficulties facing during O&M:	
Bottlenecks, \if any:			
Majority of type of vehicle:			
Availability of public transportation:			
No. of traffic accident per year (before) :			
No. of traffic accident per year (after):			
Environmental issues, if any:			
Development condition along the road/bridge:			
		<b>Suggestions:</b>	

## Appendix 3.4 Progress Record of the Survey

(1/2)

Province	Road Sector		Electricity Sector		Water Supply Sector		Irrigation Sector	
	No. of Sub-project	Progress	No. of Sub-project	Progress	No. of Sub-project	Progress	No. of Sub-project	Progress
An Giang	4	6/22	16	7/2	1	5/17		
Ba Ria Vung Tau	3	5/29	4	5/10				
Bac Giang	10	7/23	23	6/18	1	9/3	1	9/13
Bac Kan	13	6/16	5	7/1	1	8/19	3	8/19
Bac Lieu	5	7/2	6	6/26	1	5/11	1	5/6
Bac Ninh	10	5/16	8	6/15	1	8/25		
Ben Tre	5	6/19	5	6/30				
Binh Dinh	6	6/15	11	7/28	1	7/12	4	6/8
Binh Duong	1	5/31	4	5/6				
Binh Phuoc	7	5/20	7	5/7				
Binh Thuan	7	5/10	15	5/14				
Ca Mau	6	6/30	6	7/8	2	5/12	1	5/5
Can Tho	4	6/15	0					
Cao Bang	11	6/17	13	5/15			1	8/18
Da Nang	2	5/31	7	7/12				
Dac Lak	10	7/9	9	8/19	2	7/16	5	5/27
Dak Nong	4	7/1	4	8/20			2	5/29
Dien Bien	11	5/15	1	8/2	3	7/28,29	1	8/6
Dong Nai	2	5/22	0					
Dong Thap	4	7/9	8	7/1	1	5/5	1	5/13
Gia Lai	7	7/12	8	8/17	2	7/15	3	6/11
Ha Giang	11	5/7	5	6/23	3	8/16,17	1	8/16
Ha Nam	12	6/7	11	6/3				
Ha Noi (inculding former HaTay)	12	7/29	8	8/20	1	9/7		
Ha Tinh	17	5/9	26	8/6	6	6/2,3	7	7/20
Hai Duong	7	5/6	8	6/25	1	8/25		
Hai Phong	9	5/15	1	8/13	1	8/30		
Hau Giang	1	6/28	4	6/8	1	5/13		
Hoa Binh	8	5/11	11	5/18			2	8/2
Hung Yen	11	5/12	7	6/8				
Khanh Hoa	2	6/27	8	8/3				
Kien Giang	5	6/28	4	6/16	1	5/14		
Kon Tum	6	7/27	6	8/13	3	7/13,14	2	6/15
Lai Chau	7	5/13	4	8/4	3	8/2,3	1	8/10
Lam Dong	8	6/30	11	7/31	2	7/19	2	5/19
Lang Son	9	7/12	8	8/17	1	8/24	1	9/15
Lao Cai	11	5/9	17	7/15	2	8/12,13	2	8/13
Long An	4	6/8	3	5/20				
Nam Dinh	14	6/15	15	6/11				
Nghe An	15	7/24	13	7/31	4	5/31,6/1	4	7/23
Ninh Binh	15	6/30	9	6/2	1	8/31	1	7/30
Ninh Thuan	8	5/6	11	5/19	1	7/20	3	5/17
Phu Tho	16	5/10	19	5/20	5	8/6,9,10	5	8/4
Phu Yen	7	6/20	9	7/30	2	7/7	4	6/3

### Appendix 3.4 Progress Record of the Survey

(2/2)

Province	Road Sector		Electricity Sector		Water Supply Sector		Irrigation Sector	
	No. of Sub-project	Progress	No. of Sub-project	Progress	No. of Sub-project	Progress	No. of Sub-project	Progress
Quang Binh	8	5/14	10	8/10	2	6/4	1	7/15
Quang Nam	12	6/5	11	7/19	4	6/14,15	1	7/8
Quang Ngai	10	6/10	9	7/24	2	7/8,9	4	7/7
Quang Ninh	8	7/26	1	8/18	2	8/26,27		
Quang Tri	16	5/22	13	8/13	6	6/7,8	3	7/14
Soc Trang	9	6/24	7	6/23	2	5/10		
Son La	9	5/7	10	8/1	2	7/26,27		
Tay Ninh	4	6/3	4	5/5	1	5/19		
Thai Binh	9	5/21	8	6/9	1	8/30		
Thai Nguyen	10	6/15	8	8/16	2	8/18	3	9/12
Thanh Hoa	16	7/9	10	7/24	6	5/24,26	6	7/29
Thua-Thien Hue	7	5/29	10	7/15	3	6/9,10	2	7/12
Tien Giang	4	6/9	9	6/24				
Tra Vinh	9	6/25	6	6/11	3	5/6	2	5/11
Tuyen Quang	8	6/7	8	6/25			2	9/8
Vinh Long	5	6/12	4	6/10	2	5/7	1	5/12
Vinh Phuc	15	5/20	8	8/13	2	9/6	1	9/10
Yen Bai	11	5/17	8	5/25	2	8/4,5	1	8/5
<b>Total</b>	<b>517</b>		<b>522</b>		<b>96</b>		<b>85</b>	
Completed (No. of project)	517		522		96		85	
Completed (%)	100%		100%		100%		100%	