PEOPLE'S COMMITTEE OF BINH DINH PROVINCE BINH DINH KEY PROJECTS MANAGEMENT UNIT

SFG2531 V4 REV

SOCIAL ASSESSMENT REPORT

COASTAL CITIES SUSTAINABLE ENVIRONMENT PROJECT
QUI NHON CITY SUBPROJECT
BINH DINH PROVINCE

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SOCIAL ASSESSMENT REPORT

PROJECT MANAGEMENT UNIT

CONSULTANTS

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ABREVIATION

IP / AP Impacted persons / Affected People

DMS Detail Measurement Survey

GOV Government of Vietnam

HH Household

IOL Inventory of Losses
OP Operation policy

PPC Provincial People's Committee

PMU Project Management Unit

RP Resettlement Plan
TOR Term of Reference

USD US Dollar

VNÐ Vietnam Dong
WB World Bank
EM Ethnic Minority

PC People's Committee

1. INTRODUCTION

1.1. The context of the Project

- 1. The Coastal Cities Environmental Sanitation Project (CCESP) funded by World Bank (WB) has been deployed in three coastal cities of Dong Hoi (Quang Binh Province), Quy Nhon (Binh Dinh Province) and Nha Trang (Khanh Hoa Province). The project was completed in late 2014 and has achieved positive results. On that basis, the cities involved in the Project would like to propose the Ministry of Planning and Investment (MPI), relevant ministries/agencies and WB to continue the support in order to deploy the Project in the second phase. The MPI has agreed to develop the project named "Coastal Cities Sustainable Environment Project (CCSEP)" funded by WB.
- 2. CCSEP – Quy Nhon city Sub-Project are the continuation of the CCESP– Quy Nhon Sub-Project that had been funded by WB. CCSEP - Quy Nhon Sub-Project (hereafter referred to as "Sub-Project") will continue to focus on dealing with stormwater drainage, collection & treatment of wastewater for inner-city wards of Dong Da, Thi Nai, Quang Trung, Ghenh Rang, Ngo May, Nguyen Van Cu, Tran Hung Dao, Le Hong Phong, Ly Thuong Kiet, Tran Phu, Le Loi, and Hai Cang; building Nhon Binh wastewater treatment plant (WWTP) with a capacity of 14,000 m³/day; building Bau Lac WWTP with a capacity of 2,350 m³/day; building a new solid waste dumping site and a leachate treatment plant with a capacity of 200 m³/day; building sanitation blocks at selected schools; launching programs on communication, technical assistance, capacity improvement for PMU and relevant agencies during project implementation. This is a sub-project that will completely serve public welfare with the highest aim of improving the quality of environment, the health and the material as well as spiritual life of local residents. These are also the main objectives in the Cooperation Strategic Plan (CPS) signed by WB and the Government of Vietnam.

1.2. Objectives of the Sub-Project

1.2.1. General objective

3. To ensure sustainable effectiveness of in investment in the environment and to increase the institutional reform program related to environmental sanitation in the cities involved in the project.

1.2.2. Specific objectives

- 4. The Sub-Project specifically targets the following:
 - To focus on solving flooding in the remaining areas regularly threatened by flood in downtown areas where investments have not been made in the project's Phase 1;
 - To build complete primary and secondary sewer systems in inner-city areas in conformity with the pre-feasibility report that has been studied and approved; to deal with environmental pollution with a wastewater collection system including tertiary stormwater sewers and collection sumps;
 - To invest in building the transport infrastructure in order to improve the infrastructure in the Project area: building Chu Y Bridge linking Thap Doi Street

with Residential Area of Key 1B to the North of Ha Thanh river; building Huynh Tan Phat bridge connecting Residential Area of Key 1B to the North of Ha Thanh river with the resettlement site of the project for the Urban – Commercial Area North Ha Thanh river. The investment in building these bridges will shorten local residents' travel time from the beneficiary areas to inner-city areas, enhancing the ability to connect between the residential area in Key 1B and the resettlement site serving the project for the Urban – Commercial Area North Ha Thanh river and other residential areas adjacent to inner-city areas; to enhance local residents' access to public services; and to heighten local residents' adaptability to climate change in the Project area;

- To build Nhon Binh WWTP with a capacity of 28,000 m³/day;
- To raise the capacity of Long My solid waste dumping site and from 0.9 to 1.8 million m³;
- To help strengthen the Investor's capacity in project implementation so as to ensure that the Sub-Project will be planned and implemented effectively and will achieve its objectives in accordance with the requirements by the GoV and the donor; to improve the capacity of and provide technical assistance to relevant authorities, particularly in the process of preparation and urban management; and to ensure the sustainability of the Project.

1.3. Components the Sub-project

- 5. CCSEP Quy Nhon Sub-Project will be implemented in 16 wards/communes of Quy Nhon City with 4 components, as follows:
 - Component 1: Sanitation infrastructure
 - Component 2: Environmental infrastructure
 - Component 3: Resettlement and Land clearance
 - Component 4: Technical assistance and institutional reform
- 6. The portfolio of CCSEP- Quy Nhon Sub-Project has been defined in the PDO, including:
- 1.3.1. Component 1 Sanitation infrastructure
 - Building steel-reinforced concrete combined sewers with a length of 5.43km (D600 to D1500), box culvert line (BxH= from 600x600 to 2x3000x1800mm) in the areas of Hoc Ba Bep, Tran Hung Dao Street, upstream ditch of Bau Sen Lake, and Phu Hoa canal; these sewer lines are positioned under the pavements and drain water from catchments through discharge gates;
 - Building tertiary sewer pipelines of a length of 28.854 km connected to sewers from HHs to enhance effective collection and treatment; raising the capacity of Nhon Binh WWTP from 14,000 to 28,000m³/day; building the tertiary sewer system in Tran Quang Dieu Ward to collect wastewater to Bau Lac WWTP with an expected design capacity of 2,350 m³/day; this tertiary sewer pipelines are projected to be of D250-D300 uPVC plastic pipes conforming to technical standards and buried at depths of 1-2m, with 01 main manhole and 02 manholes

waiting for HH connections between distances of 12-20m each. HH connection manholes are built in concrete and positioned appropriately for greatest HH connection convenience; Raising the capacity of Nhon Binh WWTP from 14,000 to 28,000m³/day; making additions in improving malodor treatment systems to minimize bad odor generated from the treatment areas which may affect surrounding HHS;

- Enlarging Long My dumping site to an area of 8.52ha; upgrading the operation of the leachate treatment station in conformity with required technical standards before pumping the effluent to Bau Lac WWTP;
- Building to a maximum of 12 sanitation blocks in remaining primary schools and secondary schools in Quy Nhon City so as to improve sanitation conditions, the health and the awareness of environmental protection among pupils/students and the community.

1.3.2. Component 2 – Urban Connectivity Improvement

- Building Chu Y Bridge (linking Thap Doi Street to the residential area of Key 1B North of Ha Thanh river); design load: HL93;
- Building Huynh Tan Phat Bridge (linking to the residential area of Key 1B North of Ha Thanh river to the Resettlement Site serving projects in Quy Nhon City); design load: HL93.

1.3.3. Component 3 – Resettlement and land clearance

 Compensation and relocation of HHs affected by the Project; site clearance for the Sub-Project and for ensuring local residents' livelihood.

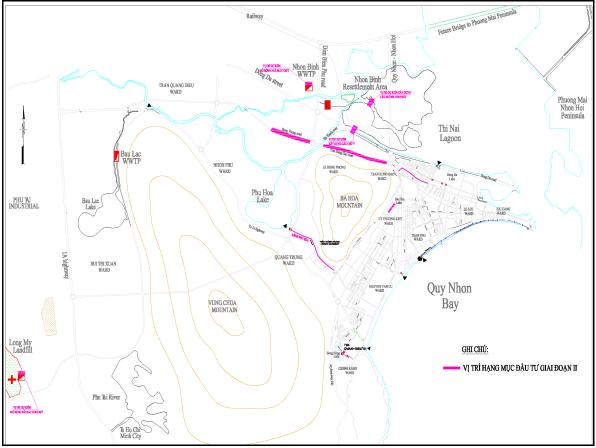
1.3.4. Component 4 -- Technical assistance and institutional reform

This Component includes assistance in project implementation such as project preparation, independent design consultancy and remaining design tasks of the Project. Component 4 also aims at enhancing the capacity and institutional reform for various departments, sectors and public-utility companies in the Province.

This Component provides assistance in project implementation through international consulting packages in construction management & supervision; independent consultancy in social safeguards & resettlement; environmental monitoring; auditing; independent consultancy in technical assistance in compliance with WB regulations; and consulting & management packages in accordance with prescriptions by the GoV. This Component also aims at enhancing the capacity of the PMU and other management agencies through workshops, experience exchanges, establishment of communication programs to raise the awareness of environmental protection among residents in the Project area; assisting in institutional reform in order to promote the efficiency during the operation; ensuring project sustainability and sharing experience with other localities in managing ODA projects in the domain of drainage and environmental sanitation.

7. Overview map of the CCSEP- Quy Nhon Sub-Project is shown in the following figure:

Figure 1.1: Overview map of investment



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2. SOCIAL ASSESSMENT OBJECTIVES AND METHODS

2.1. Objectives

- 8. Social assessment (SA) is a study aimed at reviewing the planned activities of the project funded by the World Bank, which possibly affect the livelihood and culture of local residents currently living in the Sub-Project area, including ethnic minority people (if any). A part of the SA is surveying ethnic minorities living in the Sub-Project area to be assessed and confirmed of their presence in the Sub-Project area through screening the ethnic minorities (EM). Screening ethnic minorities is carried out in conformity with the World Bank's policy OP 4.10, and is carried out in the scope and areas corresponding to the scope of environment assessment (in conformity with OP 4.01).
- 9. Social assessment is carried out at the same time with the environment assessment of the Sub-Project with two objectives: firstly, reviewing possible impacts (both positive and negative) of the Sub-Project during the implementation of the Sub-Project activities and secondly, detecting possible negative impacts form the design of mitigation measures and proposing community development activities relating to the project development objectives. Upon detecting unavoidable negative impacts, it is local residents, Governmental agencies, and relevant stakeholders must be consulted.
- 10. During assessment, If any negative impacts are detected as a consequence of the implementation of the Sub-Project, , appropriate measures are to be carried out immediately (prior to the implementation of the Project) in order to avoid, mitigate or minimize such negative impacts, and in case of unavoidable impacts, compensation must be performed to APs.
- 11. The SA report also aims to survey, on the basis of the knowledge of the cultural, economic and social characteristics of the residential communities, feasible development activities that the Sub-Project can carry out in order to ensure that local residents including ethnic minority people affected by the Sub-Project will enjoy the most reasonable economic and social benefits.
- 12. In Part 3 of this report, the Consultant will briefly present the results of SA. In Part 4, Consultant will present the findings from SA (both positive and negative impacts) and recommendation based on SA results, including gender analysis results. This can also be considered as a part of SA in describing the gender-related features in the Sub-Project area (from the viewpoint of Project impacts) to allow the integration of gender-related issues in order to promote gender equality and enhance even more the efficiency of the development of the sub-projects, as well as the whole Project. Depending on the levels of identified potential impacts from the Project and its development objectives, a Gender Action Plan, an Action Plan for Public Health and a Communication & Community Consultation Plan are also prepared and stated in detail in Appendixes 2, 3, and 4.

2.2. Methods

13. Social Assessment (SA) is a process to ensure that the activities of the Sub-Project will (i) cover major social issues involved and develop mitigation measures, and (ii) integrate a strategy on the participation of various stakeholders. Social assessment is a recurrent process that must be carried out multiply during the phases of a project cycle. The following figure shows an overview of the typical process/phases of social assessment.

Consider project context

Adjust and apply with stakeholder involvement

Ensure capacity

Consider project context

Begin stakeholder analysis; involve stakeholder

Indentify social foctors

Figure 2.1: Social assessment procedure

2.2.1. General principles

14. The following principles are used to ensure the quality of research:

Develop plans in consultation

with stakeholders

The principle of approaching from bottom to the top: This aims to ensure the widespread participation of different communities, including poor HHs in the community. Thus, project managers could get their opinions, understand their aspirations and obtain recommendations from many different social groups;

Analyze data and

assess priorities

- The principle of combining qualitative data and quantitative data;
- Cross-check: Collected information is always cross-checked from different sources in order to ensure fairness and accuracy;.
- Field survey: to ensure the appropriateness and accuracy of information.
- 15. The following methods and techniques will be used in order to gather and assess information:

2.2.2. Desk study

16. The review and analysis of documents related to the Project will provide baseline information about the Project and help to explain why there are changes or why not. On the other hand, it also helps to identify gaps in data that need to be further collected more and assessed. Information and data relating to the Project were collected from the PMU and from other sources of socio-economic analyses such as the Statistical Yearbook of Binh Dinh province, the socio- economic reports of the province /city /wards, communes and socio-economic studies from relevant projects.

2.2.3. Qualitative method

- 17. After the documents of the Project have been studied and preconditioning surveys carried out, a survey framework and method are discussed to determine the appropriate size of collecting the samples, as well as the techniques/methods to collect data. Two main survey techniques have been selected, including:
 - Use of survey questionnaires, survey tables/figures for authorities of local governments, wards/communes in the Project area;
 - Survey of socio-economic conditions of HHs through interviews with structured questionnaires (for more detail, see questionnaire sample in Appendix 1): this method requires a sampling strategy in order to assess the criteria before and after Project implementation.
- 18. As mentioned in the TOR, it is necessary to carry out a survey on HHs that are likely to be affected by and/or benefit from the Project. This survey helps to provide data on the area affected by the Project and the existing social trend and status, including:
 - Local authorities: representatives of mass organizations in the Project area in the city and the wards/communes;
 - Households: beneficiary HHs, vulnerable HHs, HHs exposed to the risk of being affected by the Project, HHs with different living standards, etc.
- 19. The survey method by layer sampling has been carried out in order to collect the data from communities affected by the Project or beneficiaries with a number of selected HHs of about 850. The Consultant will conduct random sampling from the following 2 lists of HHs:
 - Firstly, a list of selected HHs living in the surveyed locality: basing on the overview map of the investment portfolio of the Sub-Project, the Consultant will select surveyed areas with adequate representatives for the investment portfolio of the Sub-Project. Then, the Consultant will co-ordinate with local officials (statistics staff of the People's Committee of wards/communes or the head of hamlet/village) and make a list of HHs living in the surveyed areas.
 - The survey samples will also be based on the locality of each surveyed area with a specific investment item. The percentage will be proportionately based on HHs living along two sides of the road/street, or in the residential quarter, HHs adjacent to the investment items and HHs living in or close to acquired areas for the items of the Sub-Project.
 - Secondly, the list of HHs affected by each investment item: at the same time on the basis of preliminary designs, the Consultant in cooperation with PMU staff and communal cadastral officials will make a list of HHs affected by each investment item in each ward/commune.
- 20. The socio-economic survey was carried out in 3 weeks from December 17 to December 29 for 851 HHs selected in 8 of 16 wards/communes in Quy Nhon City. Among these, the 6 wards of Dong Da, Tran Hung Dao, Quang Trung, Le Hong Phong, Nhon Binh and Phuoc My are the wards/communes with main investment works from the Project and the 2 wards/communes of Ngo May and Tran Quang Dieu are those selected for the social survey. These two wards/communes represent those with only investments in tertiary connection sewerage network.

Table 2.1: Number of surveyed HHs in the catchments of the Sub-Project

			Number of surveyed HHs			
STT	Ward/commune	Investment items	Beneficiary HHs	Affected HHs	Total	
1	Dong Da	Stormwater sewers along Tran Hung Dao Street Building Chu Y bridge and Huynh Tan Phat bridges	254	9	263	
2	Quang Trung	Building double box culverts in Phu Hoa canal	114		114	
3	Ngo May	Building tertiary sewer connection system	53		53	
4	Tran Hung Dao	Stormwater sewers along Tran Bach Dang Street	144		144	
5	Le Hong Phong	Building box culverts in upstream ditch of Bau Sen lake	55		55	
6	Nhon Binh	Stormwater sewers along Hung Vuong Street Upgrading and, expanding Nhon Binh WWTP	130		130	
7	Tran Quang Dieu	Building tertiary sewer connection system	62		62	
8	Phuoc My	Expanding Long My landfill	28	2	30	
	Total		840	11	851	

(Source: Socio-economic survey report, February 2016)

surveyed objects: HH heads (husband or wife) -the economic decision maker in the family. In the survey process, balanced proportion between male and female respondents has been taken into account in order to ensure gender balance.

2.2.4. Qualitative method

- 21. In addition to quantitative study, the Consultant has also conducted the survey qualitatively, including: group discussions and in-depth interviews. The purpose of indepth interviews and group discussions is to gather opinions and aspirations of residents in the Sub-Project area, on which basis to work out measures to address potential and hidden conflicts and reduce negative impacts of the Sub- Project.
- The Consultant has carried in-depth interviews (28 times) targeting main providers of information such as: the heads of residential quarters, villages or hamlets; leaders of communes/wards and cadastral officers, heads of local health care clinics, Women's Unions, HHs in the Sub-Project area (including AHs and beneficiary HHs). Besides, there are also the group with female HH heads, the group representing social organizations of villages/hamlets, the group of vulnerable HHs, and the group of ethnic minority HHs. Issues relating to living conditions, occupations, access to the infrastructure and public services, healthcare/illnesses, traffic, climate change ... have been put forward by the Consultant in discussions and interviews in order to collect information and further survey outcomes on relevant issues. Such tools as 'poor and rich' assessment in conformity with multi-poverty criteria in 2016 and classification of poor HHs in economic groups based on housing, education, occupation, ethnic groups,

- average income ... have been used to assess the living standards of HHs in the Sub-Project area.
- 23. Community consultation: during the socio-economic survey process, the Consultant has organized 16 community consultation meetings for leaders of communes/wards and HHs in 16 communes/wards in the Sub-Project area. Attendees of these meetings include:
 - Representatives of local governments;
 - Representatives of sectors, agencies, and unions (Fatherland Front, Women's Union, Youth Union, Farmers' Union, Veterans' Union...);
 - Representatives of HHs affected by the Sub-Project: HHs affected by acquired land, HHs benefiting from the Sub-Project, especially those in the vulnerable groups (for example, women-headed HHs, HHs with handicapped people, HHs benefiting from State policy, ethnic minority HHs, etc.).
- 24. The issues brought forward by the Consultant for discussion in community consultation include: (i) introducing the Project's investment items; (ii) overview of the current socio-living standards in the area; (iii) the current status of the infrastructure of residential areas including the technical and social infrastructure: electricity supply, roads, schools and healthcare services; (iv) demand for investments in construction and upgrading of the local infrastructure system; (v) screening/assessing potential impacts on the cultural, social, economic life of local residents in the Project area which may take place during construction operations; (vi) local residents' readiness to participate in the sub-projects of investing in the construction and development of the local infrastructure, especially their willingness in receiving compensation for site clearance; (vii) the community's proposals in the preparation and implementation of the Sub-Project.

2.2.5. Field direct observation

25. This method helps obtain timely and useful information as supplements to collected data, helping understand better the context of collected information and helping explain the results obtained from surveys.

2.2.6. Data analysis

- 26. The answers recorded in the questionnaires (structured interviews) are analyzed with the SPSS (Statistical Package for Social Sciences) software.
- 27. Qualitative information is analyzed in two ways: (i) by using directly field techniques, if applicable; (ii) (ii) by using quotes and case studies to further clarify quantitative information.

2.3. Socio-economic survey and assessment procedure

28. The process of organizing a socio-economic survey during the preparation of a social assessment report would include the following steps:

Documents by the project steering board/committee **Desk study** Documents of PMU Data collected from . Quy Nhon CPC Collecting all data from the Project preparation committee, relevant authorities, and CPC Selecting samples (5% of HHs and 2% spare **Preliminary** samples) works Preparing survey area/site and logistics Carrying out pilot surveys and drawing lessons thử, rút kinh nghiệm. Holding 1 meeting with relevant parties Carrying out mapping out the society and 'poorrich' classification Field survey Training 10 interviewers and Carrying out 16 group discussions in 16 consultation wards/communes Interviewing selectd HHs Holding consultation meetings in 16 wards/communes Processing quantitative data Report Processing qualitative data preparation Analyzing data Writing the report Carrying out checks and obtaining internal feedback Editing report and submitting it to PPMU, WB.

Table 2.2: Implementation procedure

3. NATURAL, SOCIAL AND ECONOMIC FEATURES OF THE SUB-PROJECT AREA

3.1. Overview of the socio-economic status of Quy Nhon City

3.1.1. Natural features

♣ Geographical location:

- 29. Quy Nhon City is located in the southeast of Binh Dinh province, with more than 134km of coastline, the north-south traffic route (National Highway 1A), of coordinates of 13°36'N 13° 54'N and; 06° 109' 109° 22'E. The City adjoins:
 - In the north: Tuy Phuoc and Phu Cat districts of Binh Dinh province; 1,065 km from Hanoi;
 - In the south: Song Cau town of Phu Yen Province; about 670 km from Ho Chi Minh City;
 - In the west: Tuy Phuoc district of Binh Dinh Province; 180km from Pleiku City; and
 - In the east: the East sea.
- 30. Quy Nhon was officially founded over 100 years ago, but the City's history started and developed together with the Champa culture in the 11th century, with Tay Son dynasty and Thi Nai port in the early 18th century. In 1998, the Prime Minister of the Government issued Decision No.558/QĐ-TTg, establishing Quy Nhon city as an urban area of Grade 2 and one of three commercial and tourism centers of the Southern Central coastal areas (together with the cities of Da Nang and Nha Trang).
- 31. Quy Nhon is the economic, political, cultural and scientific center of Binh Dinh Province. It is a port city and a key waterway and land traffic hub of Southern Central Vietnam, and also an important gateway to the Central Highlands, Southern Laos and Northeastern Cambodia, Thailand, and into the East Sea. And Quy Nhon City is also one of the core cities of Southern Central Vietnam.

4 Topography

- 32. Quy Nhon city is divided into two areas: the old municipality and Phuong Mai peninsula extension area.
 - The old municipality:
 - Location: close to the coastline; with Ba Hoa mountain of 279.2 m high and Vung Chua mountain in the middle of the inner-city area dividing the old municipality into 2 smaller areas: the inner-city area and the area of Bui Thi Xuan–Tran Quang Dieu Long My wards;
 - The inner-city area: relatively flat terrain; altitude from 1.5 m to 4 m; slopes from the mountain to the sea and from the mountain to the river banks; average declivity from 0.5% to 1%; this area usually flooded from 0.5 m to 1.0 m (p = 10%) in depth at locations with altitudes of below 2.0 m;

- Area of Bui Thi Xuan- Tran Quang Dieu Long My wards: narrow valley along the east and west of National Highway 1A are the between Vung Chua mountain and Hon Cha mountain.
 - + The terrain to the west of National Highway 1A is high and rather flat, with the lowest altitude of 5.5m and an average altitude of 8.0m. Slopes are from the west to the east and from south to north, with a declivity from 0.5% to 1.5%; extremely favorable for construction;
 - + The terrain to the east of National Highway 1A is rather low, with mostly rice fields; lowest altitude: .,1m, highest altitude: 15.0m; slope direction: from south to north; declivity: 0.,5% to 2%. This area is usually flooded from 0.5m to 2.5m (p = 10 %) in depths at locations with altitudes of below 3.0 m;
 - + The terrain of Long My area is rather flat, with altitudes of above 5.5 m or more, extremely favorable for construction.
- Phuong Mai peninsula extension area:
 - Stable sand dune; largest width: 4.5 km; smallest width: 1 km; length: about 18 km;.
 - + highest altitude: 315 m;
 - + average altitude: 15 m;
 - + lowest altitude : 0.3 m (shrimp farming area to the west of the peninsula).
 - Peninsula sloping to both east and west with a declivity of 0.5% to 2%. The peninsula is not flooded, rather favorable for construction.

Climate:

33. The inner-city area of Quy Nhon city has the typical climate of central region of Central Vietnam, with prevailing northeastern winds in the rainy season and western winds in the dry season. The dry season lasts from January to August and the rainy season from September to December (the rainfall in the rainy season accounts for 80% of that of the whole year). The weather in winter is not very cold, chiefly with prevalent northwestern and northern winds. The temperatures in summer are relatively evenly distributed, with the average temperature exceeding 28°C in 4 months. Prevalent wind directions are mainly eastern and southeastern, but western and northwestern winds would prevail in the first half of summer. The rainy season in Quy Nhon area is usually accompanied with typhoons and hurricanes which hit the area mostly in October.

34. The central area of Quy Nhon city is located in the south of Ha Thanh river. The river has a length of 85 km, starting from an altitude of 1,100 m above sea level in the southwest of Van Canh district, flowing in a southwest-northeast direction, and splitting into 2 branches at Dieu Tri: Ha Thanh and Truong Uc before discharging into Thi Nai lagoon through the 2 river mouths of Hung Thanh and Truong Uc then pouring into the sea. The river catchment is 580 km².

- 35. At present, the rivers often run dry with only an inconsiderable flow in the dry season. However, in the rainy season, there would be rapid currents, causing usual flooding in the period from October to November, with flooding duration usually lasting 58 to 75 hours.
- 3.1.2. Socio-economic features

Demography and labor

36. Quy Nhon City has a population of 285,543 (in 2014), with an average density of 1000.1 /km². The proportion in gender is rather balanced (male/female: 0.94%). About 91.09% of the population is concentrated in urban areas, mainly in 6 wards: Nhon Binh, Nhon Phu, Dong Da, Quang Trung, Ngo May and Nguyen Van Cu. Generally, the population is fairly evenly distributed among the wards, as shown in the following table:

Proportion Population in STT Ward/commune 2014 Male **Female** 1 Nhon Binh ward 18,712 9.070 9,642 Nhon Phu ward 20,429 9,918 2 10,511 3 Dong Da ward 29,550 14,342 15,208 4 Tran Quang Dieu ward 17,115 8,314 8,801 5 Hai Cang ward 17,765 8,606 9,159 Quang Trung ward 22,235 10,763 6 11,472 Thi Nai ward 5,427 7 11,215 5,788 8 Le Hong Phong ward 14,427 6,974 7,453 9 Tran Hung Dao ward 9,240 4,473 4,767 10 Ngo May ward 23,115 11,202 11,913 11 Ly Thuong Kiet ward 5,551 2,694 2,857 12 Le Loi ward 12,974 6,293 6,681 13 Tran Phu ward 11,333 5,521 5,812 14 Bui Thi Xuan ward 15,647 7,584 8,063 15 Nguyen Van Cu ward 20,098 9,722 10,376 16 Ghenh Rang ward 10,702 5,195 5,507 17 Nhon Ly commune 8,370 4,098 4,272 18 Nhon Hoi commune 3,704 1.811 1.893 19 Nhon Hai commune 6.043 2,949 3,094 20 1,983 971 1,012 Nhon Chau commune 21 Phuoc My commune 5,335 2,602 2,733 285,543 138.529 147,014 **Total**

Table 3.1: Population of Quy Nhon City

Source: 2015 Statistical yearbook of Quy Nhon City

37. Labor force: As of 31 December of 2014, the total number of working staff in enterprises is about 78,273, of which the number of people working in State enterprises is about 6,798, that of those working in non-State businesses is about 69,819 persons, and that of working for FID enterprises is about 1,656. The numbers of working people

in various businesses are as follows: about 36283 persons in the processing sector, accounting for the highest percentage; construction: 16,997; wholesale & retail trade, and repairs of motorbikes and automobiles: about 8,031; transportation and storage facilities: about 6,124; others: inconsiderable amount. The total number of people working in the private sectors of forestry and fishery is about 32,350, of which industrial processing: about 3,398; wholesale & retail trade, and repairs of motorbikes and automobiles: about 13,053; food & drink businesses: about 10,339, and others: inconsiderable amount.

- 38. Income: Quy Nhon city has been continually enjoying a year-on-year increase in economic growth in the past 10 years (2005 to 2014) at an average GDRP rate of 12.15%/year. The average income per capita increased 4.5 times, presently reaching 65 million VND/person/year, 1.5 higher than the average per capita income of Binh Dinh Province.
- 39. Housing conditions: the situation has substantially changed from 2005 2014, with houses outside and close to the inner-city areas having been replaced by multi-storey buildings with good planning, ensuring the living and business conditions of the HHs. The landscape in inner-city areas is clean and beautiful, with high-rise buildings built in an orderly manner, meeting the standards of a grade 1 urban municipality of Binh Dinh province.

Economic features

- 40. With the implementation of "national industrialization modernization" under the leadership of the Party and with the efforts made by the Party Unit and people of Binh Dinh Province in general and of Quy Nhon City in particular, Quy Nhon City has enjoyed outstanding progress in recent years with local residents' living standards being gradually improved and the economic structure having many changes the line of increasing the sectors construction, industry and services, and decreasing of the proportion of agriculture and forestry.
- 41. The economy has been restructured in the line of increasing the sectors of industry, construction and services and decreasing the proportion of agriculture, forestry, and fishery. Specifically, in 2015 industry and construction accounted for 47.81%; services: 47.03%; agriculture, forestry and fishery: 5.16% (compared with 2014, industry, construction: 47.66%; services: 46.87%; agriculture, forestry, and fishery: 5.47%).
- 42. According to the report on implementing the 2010-2015 socio-economic development of Quy Nhon city:
 - The Gross Regional Domestic Products (GRDP) increased averagely by 11% year on year; in which, the increase in the sectors of industry construction: by 10.3%; services: 12.4%; and agriculture forestry fishery: by 3.8%. The average GRDP per capita by the end of 2014 reached 66 million VND (3052 USD), increasing two times in comparison with 2010. Restructuring of the economy continues in a positive direction of increasing the proportion of the sectors of industry, construction (47.6%); services (46.9%) and agriculture forestry fishery (5.5%).
 - Trade, tourism and services: the total retail sales of goods and services increased by 14.3% per capita/year on average. The value of exports reached 16,688.6 billion VND in 2015, up 11.8% compared to 2014. The total value of imports was estimated at 579.5 million USD, up 8.43% compared with 2014. Planning and promoting in tourism have been enhanced; so far, there have been 92 hotels and

150 accommodation establishments in the City with more than 2,500 rooms (increasing 460 rooms over 2010). In 2014, Quy Nhon City witnessed 1.94 million arrivals (including 155,000international visitors); the average length of stay is 2 days/hotel; revenues from tourism reached 651 billion VND, increasing by 2.6 times compared to 2010.

• Agriculture - forestry - fisheries: The deployment of the action program of implementing Resolution No. 7 by the Central Committee (tenth session) on agriculture, farmers and rural areas, and the National Target Program on building new rural areas in the 4 communes of Ly Nhon, My Phuoc, Nhon Hai, and Nhon Chau has achieved positive results. The building of new rural areas was completed in the 2 communes of Nhon Ly and Phuoc My in 2015 and will be completed for the 2 commune of: Nhon Hai and Nhon Chau in the year 2020. The value of the production in agriculture, forestry and fisheries increased averagely by 3.6% year on year. In 2015, the value of agricultural production was estimated at 83.722 billion VND, increasing by 2.64%; and forestry production increased by 6.57% over the same period of the previous year.

♣ Security, order, social evils

43. Attention has been paid to propaganda on traffic order in the locality, contributing to raising local residents' awareness of complying with traffic laws. Many road and street have been repaired and installed with traffic signs to secure traffic safety. Ward authorities frequently launch campaigns, asking HHs to comply with traffic laws and avoiding encroaching on sidewalks and pavements. A number of streets present possible risks of traffic accidents, such as National Highway 1A, National Highway 1D, Tan Tai Street, Tran Hung Dao Street, and Hung Vuong Street, while the remaining streets are of lower incidence. Traffic accidents are mainly caused by failure in complying with traffic laws, such as traveling in the wrong lane, changing direction without observation, overtaking other vehicles improperly, failure in controlling traveling speed, failure in keeping a safe distance from other vehicles or passing trains, etc.

Education

- 44. The quality of all-round education is enhanced, with the assessment of the quality of teaching and learning at all educational levels being changed more positively and with a more practical nature.
- 45. According to the 2014 Statistical Yearbook released by the Statistical Department of Quy Nhon City, there are presently 45 pre-schools with 435 classrooms and 387 classes (of which: 218 public school classes;169 private school classes).. Teachers of primary and high schools outnumbers those in nursery schools, namely 2053 teaching at 57 schools (primary schools, lower secondary and higher secondary schools); the number of pupils and students of all educational levels in the whole city is 47m693, of which 23,122 are primary pupils, 15,548 are lower secondary students and 9023 are higher secondary students.

Culture

46. Strengthening the investment of upgrading, buying the equipment, raising the operational quality of radio speaker system along streets, opening more new subjects in order to raise the awareness of the local residents, meeting the demand for the local residents' approaching to information.

47. Implement works of new recognitions of the cultural honor for towns, villages/hamlets.. recognition of the cultural honor in many years consecutively for towns; propose the provincial people's committee to reward for the individuals, organizations having the good achievements in the movement "the whole people unite to build the cultural life".

- 48. As of 2014, in the whole city of Quy Nhon there are 10 hospitals (with 2,540 patient beds), 1 general clinic and 21 commune healthcare stations. Healthcare workers in the whole city, according to the 2014 statistical, consisted of 556 doctors, 205 assistant doctors, 1,008 nurses and 129 midwives; in pharmacology, there were 148 pharmacists (PhD and MA degrees, specialists), 360 intermediate pharmacists and 188 assistant pharmacists.
- 3.1.3. Current status of technical infrastructure

♣ Traffic

49. Quy Nhon City has a relatively developed traffic system, including waterways (Quy Nhon port, Thi Nai port, Dong Da port and Nhon Hoi deep-water port), railway (Dieu Tri railway station), airway (Phu Cat airport), and a system of internal roads connected to provincial roads into a diverse network facilitating convenient travel and transportation of goods.

Present water supply

- 50. There are 13 pumping stations for drilled wells along Ha Thanh river with a flow of 125-200m³/h/well and depths of bored wells of 18.5-25m. The total volume of water exploited is 28,500m³/h/well. Water from the pumping stations is conducted through Ø400 and Ø500 pipelines along National highway 1D to the pressurized pumping station at the foot of Ba Hoa mountain and contained in 2 reservoirs of 3,000m³ each.
- 51. The quality of water is recorded as follows:
 - pH: 6.50-6.78; colorless, odorless, tasteless
 - $Cl^{-} = 11.40-34.80 \text{ mg/l}; TDS = 0.04-0.11 \text{ mg/l}$
 - $Fe^{2+} = 0.10 0.47 \text{ mg/l}$; $Fe^{3+} = 0.00 0.03 \text{ mg/l}$
 - The concentrations of N-NO₂⁻ and N-NH₄⁺ are small and do not exceed the permitted standards.
- 52. In the whole city there is a pipeline of about 435,000m of various diameters. At present, the system has supplied water to all the inner-city wards of Quy Nhon city, Dieu Tri town, and Tuy Phuoc district, serving a total number of over 43,000 water-consuming HHs.
- Drainage current status
- 53. The existing sewer system of Quy Nhon city is a combined system, which is in reality a gravity drainage system for stormwater and also receives wastewater generated from other sources in the City. This system was previously built under the former regime and was then gradually extended and rehabilitated along with the growth of the City. However, the majority part of these sewer pipelines was built after 1990. In general, the pipelines have been built to carry stormwater and wastewater to the nearest receiving

bodies (rivers, lakes, ponds or sea) without full assessment of the capacity of the receiving bodies (especially lakes) and without identification of drainage catchments, resulting in an absence of consistent planning and hence limited effectiveness of the system.

- 54. In terms of drainage, the City might be divided into 3 areas:
 - Inner-city area;
 - Area to the west of the city (Bui Thi Xuan ward and Tran Quang Dieu ward);
 - Phuong Mai peninsula area.
- 55. A pattern of shared sewerage is applied to the inner-city area, while there has been no clear-cut drainage pattern for the western area of the City and Phuong Mai peninsula area.
- 56. Wastewater and stormwater are collected by tertiary and secondary sewer pipelines and conducted into primary sewers, then discharged into the lake or other receiving bodies. The main receiving bodies are Ha Thanh river, Thi Nai lagoon, Dong Da lake, Phu Hoa lake and Quy Nhon bay.
- 57. As the drainage system in a number of inner-city areas is completely a gravity system without a proper structure for discharge gate, its effectiveness is much dependent on tidal regimes.

3.2. Socio-economic data in the Sub-Project area

58. The CCSEP - Quy Nhon Sub-Project is carried out in 16 wards/communes of Quy Nhon City including 15 wards and 1 commune. The population and density in each ward/commune in the Project area are presented in detail in the following table of data:

Table 3.2: Population and density in the Sub-Project area

TT	Ward/commune	Area (km²)	Population (person)	Density (persons/km²)
Ι	Inner-city (wards)			
1	Nhon Binh	14.7	18,712	1,273.2
2	Nhon Phu	13.22	20,429	1,545.2
3	Dong Da	6.26	29,550	4,719.3
4	Tran Quang Dieu	10.93	17,115	1,565.2
5	Hai Cang	9.84	17,765	1,806.2
6	Quang Trung	7.77	22,235	2,860.5
7	Thi Nai	1.95	11,215	5,751.3
8	Le Hong Phong	1.05	14,427	13,784.6
9	Tran Hung Dao	0.47	9,240	19,659.6
10	Ngo May	1.4	23,115	16,556.8
11	Ly Thuong Kiet	0.69	5,551	8,006.6
12	Le Loi	0.57	12,974	22,753.4

TT	Ward/commune	Area (km²)	Population (person)	Density (persons/km²)
13	Tran Phu	0.72	11,333	15,806.1
14	Nguyen Van Cu	1.43	20,098	14,054.5
15	Ghenh Rang	24.9	10,702	429.8
II	Outskirts (commune)			
1	Phuoc My	68.3	5,335	78.1

- 59. Results of analyzing survey data are presented in detail as follows:
- 3.2.1. General information about surveyed HHs

Respondents' age groups

60. Age groups are among the important variables reflecting concepts and opinions on the same issues of each generation. In a socio-economic survey, the respondents' age is a very important factor manifesting the objectivity and reliability of the survey results. In this survey, the ages of respondents in each ward of The Sub-Project are shown in the following table:

31 - 50 20 - 3051 - 60 Over 60 Ward/co Percenta Total No. Perc mmune ge Frequ Freq Percentag Frequen Percent Percent Frequency entage e (%) age (%) age (%) ency uency су (%) Dong Da 2 0.2 102 12.0 83 9.8 76 8.9 263 30,9 Le Hong 2 0.2 20 2.4 19 2.2 1.6 6.5 Phong 2.2 Ngo May 1 0.1 23 2.7 19 10 1.2 53 6,2 Nhon 4 0.5 43 5.1 37 4.3 46 5.4 130 15.3 Binh Phuoc My 19 2.2 9 2 0.2 30 3,5 1.1 Quang 3 0.4 48 5.6 41 4.8 22 2.6 114 13,4 Trung Tran 49 5.8 44 5.2 51 6.0 144 16,9 Hung Dao Tran Quang 2 0.2 32 3.8 9 1.1 19 2.2 62 7,3 Dieu **Grand** total 14 1.6 336 39.5 261 30.7 240 28.2 851 100

Table 3.3: Age groups of respondents

(Source: Socio-economic survey, February 2016, N = 851)

61. The respondents are mainly of the group of 31-50 years old, accounting for 39.5%, followed by the group of 51-60, accounting for 30.7%, the group of over 60: 28.2%; and the group of 20-30: 1.6%. This shows that the persons responding to the questionnaires in the surveyed wards/communes were largely in the working age,

creating favorable conditions for the assessment of the actual status related to Project related local issues as well as the provision of opinions on the need for investment in the infrastructure and the making of decisions on the readiness of participating in the activities of the Sub-Project.

₲ Gender of respondents

62. In the total number of surveyed persons, male respondents accounted for 63.7% (542 persons), higher than 36.3% of females (309 persons). Compared in each commune/ward with the proportion in the total number of samples, the ratio differs very slightly, specifically in Dong Da ward, the ratio between males and females was 19.5% to 11.4%; in Le Hong Phong ward: 4.7% to 1.8%; in Ngo May ward: 3.9% to 2.4%; in Nhon Binh ward: 9.3% to 6.0%; in Phuoc My ward: 3.3% to 0.2%; in Quang Trung ward: 7.8% to 5.6%; in Tran Hung Dao ward: 10.5% to 6.5%; and in Tran Quang Dieu ward: 4.8% to 2.5%. As the heads of HHs were given priority in responding to the questionnaires, these higher proportions of males are quite understandable.

Males **Females** N Tot Percenta Ward/commune Frequen Percenta Frequen Percenta al ge (%) o. cy ge (%) сy ge (%) Dong Da 19.5 30.9 1 166 97 11.4 263 2 Le Hong Phong 4.7 55 40 15 1.8 6.5 33 3 Ngo May 3.9 20 2.4 53 6.2 4 Nhon Binh 79 9.3 51 6.0 130 15.3 Phuoc My 3.3 30 5 28 2 0.2 3.5 **Quang Trung** 66 7.8 48 5.6 114 16.9 6 7 Tran Hung Dao 89 10.5 55 6.5 144 16.9 Tran Quang Dieu 41 4.8 21 2.5 62 7.3 **Grand total** 542 63.7 309 36.3 851 100

Table 3.4: Gender of respondents

(Source: Socio-economic survey, February 2016, N = 851)

♣ Relationship between respondents and householders

63. The heads of Vietnamese HHs are the most influential persons in the families, who make decisions on all livelihood aspects of the HHs. They would therefore often represent the HHs to participate in external activities, including Project activities. Analysis results show that HH heads accounted for 93.7% of the respondents, followed by the spouse with 5.3%; and the children of HH heads made up only 1.1%. That the HHs heads or the spouses of HH heads participated in the survey is of great significance, which shows the high reliability of the survey questions. Specifically, the relationships between HH heads and respondents are as follows:

Table 3.5: Respondents' relationship with HH heads

N	Ward/commune	Householder's spouses			Children	Tot	%		
0.	ward/commune	Frequen cy	%	Frequen cy	%	Frequen cy	%	al n	70
1	Dong Da	223	88.1	23	9.1	7	2,8	253	100
2	Le Hong Phong	53	96.4			2	3.6	55	100
3	Ngo May	43	81.1	10	18.9			53	100
4	Nhon Binh	128	100					128	100
5	Phuoc My	30	100					30	100
6	Quang Trung	112	100					112	100
7	Tran Hung Dao	133	92.4	11	7.6			144	100
8	Tran Quang Dieu	60	100	7.6				60	100
	Grand total	782	93,7	44	5,3	9	1,1	835	100

(Source: Socio-economic survey, February 2016, N = 851)

♣ Number of cohabitant households in the family

- 64. The wards/communes with 100 % of respondents who are HH heads are: Phuoc My, Nhon Binh, Quang Trung, and Tran Quang Dieu. This is followed by Le Hong Phong ward (96.1%), Tran Hung Dao ward (92.4%), Dong Da ward (88.1%) and Ngo May ward (81.1%). The proportion of respondents who are the spouses of HH heads is not high, namely, 18.9% in Ngo May ward, 9.1% in Dong Da ward, and 7.6% in Tran Hung Dao ward. Respondents who were other members in the HHs (children/ parents of HH heads) made up 3.6% in Le Hong Phong ward and 2.8% in Dong Da ward. Thus, HH heads can be seen to make up the greatest majority of respondents. As they could get hold of all the information on the HH economy, HH heads can be said to contribute to the high reliability of the survey.
- 65. The choice of a traditional family life pattern with three or four generations sharing the same roof or the modern life pattern of nuclear families with a couple of husband and wife and children depends on the living conditions and the socio-economic conditions of each family, each region, and each territory. There are virtually no standard regulations for the family pattern. However, at present the nuclear family pattern with only one generation is the development trend for families. Quy Nhon city is no exception, and the number of cohabitant HHs in a same family in the Project communes/wards is as follows:

Table 3.6: Number of cohabitant households in the same family

No.	Ward/commune	One HH		Two HHs		>2 HHs		Total	%
		Frequency	%	Frequency	%	Frequency	5	Total	70
1	Dong Da	225	26,4	37	4,3	1	0,1	263	30,9
2	Le Hong Phong	44	5,2	10	1,2	1	0,1	55	6,5
3	Ngo May	49	5,8	4	0,,5	0	0	53	6,2
4	Nhon Binh	117	13,7	13	1,5	0	0	130	15,3

No.	Ward/commune	One HH		Two HHs		>2 HHs		Total	%
NO.		Frequency	%	Frequency	%	Frequency	5	Total	70
5	Phuoc My	30	3,5	0	0	0	0	30	3,5
6	Quang Trung	105	12,3	6	0,7	3	0,4	114	13,4
7	Tran Hung Dao	129	15,5	15	1,8	0	0	144	16,9
8	Tran Quang Dieu	55	6,5	6	0,7	1	0,1	62	7,3
	Grand total	754	88,6	91	10,7	6	0,7	851	100

(Source: Socio-economic survey, February 2016, N = 851)

66. According to the survey results, nuclear families with only one generation account for 88.6%, followed by HHs with two generations (10.7%) and HHs with more than 02 HHs living in the same house (0.7%). The greatest number of HHs living in a same house is 4; these HHs are in the wards of Quang Trung, Le Hong Phong and Tran Quang Dieu.

♣ HH size

67. According to Vietnamese traditions, especially in rural areas, a rich family is one with many children. Though this view is truthful in terms of human resources and humanities, it may not be suitable in the current context of economic development. The number of people in a family will much affect the potential for the economic development of each HH. In the total number of surveyed HHs of 851 with 3,502 people, the average HH size is 4.1 persons/HH. The largest number of people in the HH is 9 and the smallest number is 1.

Total number HHs with <4 HHs with 4 HHs with 5-6 HHs with more of persons persons persons persons than 6-9 persons living in the No. Ward/commune Total same house Avera Frequency Frequency Frequency Frequency Person ge 26 Dong Da 105 10.5 62 7.3 0.8 12.3 9 Le Hong 2 11 1.3 2.4 21 2.5 3 0.4 55 6.5 20 Phong 2.9 Ngo May 17 2.0 25 11 1.3 53 6.2 13 15. Nhon Binh 3.8 53 6.2 42 32 0.4 1.8 12 1.4 30 3.5 Phuoc My 3 15 13. 11 Quang Trung 27 3.2 55 6.5 0.7 Tran Hung 14 16. 7 65 7.6 46 5.4 31 3.6 2 0.2 9 Dao 4 Quang Tran 25 2.9 20 2.4 16 1.9 0.1 7.3 62 Dieu 3.50 100 306 312 211 24.8 22 **Grand total** 36.0 36.7 2.6 4.1

Table 3.7: HH size

(Source: Socio-economic survey, February 2016, N = 851)

68. According to the survey results, the number of HHs with 4 persons accounts for the highest proportion of 36.7%, followed by the group of HHs

with 1-3 persons (36%), HHs with 5-6 persons (24.8%); and HHs with 7-9 persons (2.6%). It can therefore be said that the HH size in the Project area at present are mainly of an average size.

Ethnic groups

- 69. The number of minority ethnic inhabitants in Binh Dinh is about 9,500 HHs with 36,500 persons (accounting for 2% of the population of the whole province), living mainly in the areas of the 6 mountainous and midland districts of An Lao, Vinh Thanh, Van Canh, Hoai An, Tay Son, and Phu Cat. At present there are 27 ethnic minorities living in the province, of which the 3 largest and longest residing groups are the Cham, the Bana and the H'rê (9,300 households with 35700 persons); other newcomers are of 200 HHs with 800 persons).
- 70. The Sub-project area is mostly inhabited by the Kinh people. Besides, there is a small percentage of the Thai, the Tay, the Cham, the Chinese, the Raglay and the Tho residing in the wards of Le Hong Phong or Hai Cang. These ethnic minority people live scatteringly among the Kinh people. As they have been long living among the Kinh, these ethnic minority people practice the same customs and habits as the Kinh.

N	Ward/commune	Kinl	ì	Chan	ì	Ragla	ıy	Hoa		Tot	
0.		Frequen cy	%	Frequen cy	%	Frequen cy	%	Frequen cy	%	al	%
1	Dong Da	262	30. 8			1	0.1			26 3	.9 .9
2	Le Hong Phong	55	6.5							55	6. 5
3	Ngo May	51	6.0	1	0. 1	1	0.1			53	6. 2
4	Nhon Binh	128	15. 0					2	0. 2	13 0	15 .3
5	Phuoc My	30	3.5							30	3. 5
6	Quang Trung	114	13. 4							11 4	13 .4
7	Tran Hung Dao	141	16. 6	1	0. 1			2	0. 2	14 4	.9
8	Tran Quang Dieu	62	7.3							62	7. 3
	Grand total	843	99. 1	2	0. 2	2	0.2	4	0. 5	85 1	10 0

Table 3.8: Respondents' ethnic minority groups

(Source: Socio-economic survey, February 2016, N = 851)

71. All ethnic minority HHs living in the Sub-Project area are able to read and write Vietnamese and use Vietnamese as their official language. Up to 99.1% of the respondents to the questionnaire are the Kinh, with only 0.2% being ethnic minority people, mainly the Cham accounting for 0.2% of the population in Ngo May ward and Tran Hung Dao ward, the Raglay accounting for 0.2% in the wards of Dong Da and

- Ngo May, and the Hoa accounting for 0.5% of the residents in the wards of Nhon Binh and Tran Hung Dao.
- 72. According to the ethnic minorities screening results and the socio-economic survey result in the Sub-Project area, there are no ethnic minority HHs or groups negatively affected by the Sub-Project. However, during the Sub-project implementation, it is still necessary to take measures to mitigate or avoid possible negative impacts to HHs in general and the ethnic minority HHs in particular.

♣ Educational background

73. Any community development program is directly or indirectly aimed at improving the living standards of local residents, encouraging them to participate in all activities/steps of the Project from the beginning to its close. Especially during the process of participation in monitoring the activities of the Project, local residents have an even more significant role. For all HHs to not only understand the objectives of the Project but also monitor its activities, screening of the educational background of the participants of the survey proves to be one among the most important factors.

Early Lower Upper Tertiary or primary Primary secondary secondary above Ward/commu school leavers school school % Total Frequen Frequen Frequen Frequen Frequen сy cy cyсу су 2. 30. Dong Da 17 16 1.9 96 11.3 116 13.6 18 2.1 0 9 Le Hong 2 3 0.4 20 2.4 23 2.7 9 1.1 55 6,5 Phong 0. 3 Ngo May 5 1 0.1 14 1.6 18 2.1 15 1.8 53 6.2 6 15, 1. 13 Nhon Binh 16 19 2.2 24 2.8 38 4.5 33 3.9 9 3 0. 2 8 0.9 11 1.3 9 1.1 30 3,5 Phuoc My 2 0. 11 13, Quang Trung 4 19 2.2 44 5.2 32 3.8 15 1.8 5 4 4 Tran Hung 0. 14 16, 3 7 9 1.1 36 4.2 50 5.9 46 5.4 9 4 4 Dao Tran Quang 0. 8 5 14 1.6 19 2.2 13 1.5 11 1.3 62 7,3 Dieu 6 10. 6. 85 52 89 31 299 **Grand total** 264 35.1 147 17.3 100

Table 3.9: Respondents' educational background

(Source: Socio-economic survey, February 2016, N = 851)

74. The table shows that the group of early leavers from primary schools accounts for the lowest proportion (6.1%), while the group with primary education makes up 10.5%, the group of tertiary education or above accounts for 17.3%, the groups with lower secondary education and upper secondary education account for the greatest proportions (31.0% and 35.1% respectively). So the respondents can be said to have a relatively good educational background, with those who have finished the lower and upper secondary education making up the majority. This helps affirm the understanding and reliability in the process of providing information, which is also is an extremely favorable condition for mobilizing the public in participating in the activities of the Project.

3.2.2. Socio-economic context

Jobs and occupations

- 75. The HHs' living depends largely on the occupation and work stability of the breadwinners in the family, especially the HH heads. Most of the families in the group of State employees (including persons currently working in office and pensioners) and the group of business HHs are those with relatively stable income and living. The group of poor HHs is usually without jobs or without stable occupations where the income is not secure resulting in unstable living.
- 76. According to the survey results, most of the families are in the group of business/service HHs with 303 persons (55.6%), followed by the group with unstable jobs (242 persons, accounting for 28.4%); the agricultural group with 61 persons (16.6%), the group of State employees with 41 persons (4.8%); and the group of army/police staff with only 31 persons (3.6%). The occupational structure of the respondents of the survey in each commune/ward in the Sub-Project area is presented in the following table:

No	Ward/comm une	Ward/comm State employees		Army/polic Business/service e staff e		s/servic	Farmers		Housewives		Unstable jobs		Tota	%	
•		Frequenc y	%	Frequenc y	%	Frequenc y	%	Frequenc y	%	Frequenc	%	Frequenc y	%	l	70
1	Dong Da	5	,6	13	,5	99	11,6	35	4, 1	25	2, 9	86	1 0,1	86	0,1
2	Le Hong Phong	2	,2			26	3,1	3	0, 4	10	1, 2	14	1, 6	55	6, 5
3	Ngo May	7	.8	3	.4	20	2.4	5	0. 6	5	0, 6	13	1, 5	53	6, 2
4	Nhon Binh	12	.4	4	.5	54	6.3	27	3. 2	9	1, 1	24	2. 8	13 0	1 5.3
5	Phuoc My					3	0.4	16	1. 9			11	1. 3	30	3. 5
6	Quang Trung	2	.2	2	.2	35	4.1	17	2. 0	15	1. 8	43	5. 1	11 4	1 3.4
7	Tran Hung Dao	10	.2	8	.9	52	6.1	20	2. 4	22	2. 6	32	3. 8	14 4	1 6.9
8	Tran Quang Dieu	3	.4	1	.1	14	1.6	18	2. 1	7	0. 8	19	2. 2	62	7. 3
	Grand total	41	.8	31	.6	303	35.6	141	1 6.6	93	1 0.9	242	2 8.4	85 1	1 00

Table 3.10: Respondents' occupations

(Source: Socio-economic survey, February 2016, N = 851)

77. The results of the survey on HHs' occupations in the Sub-Project area reflect the very occupational context of the locality. Quy Nhon City can be said to have become one of the urban centers of the Central coastal area, with its economy developing in the line of industry – seaports - services - tourism. This is the reason why the workforce has gradually shifted from the agricultural sector to businesses/services in order to meet the demand for developing the tourist potential of the City in particular and the service sector in general. The majority of business/service HHs concentrate in the wards of Dong Da, Le Hong Phong, Quang Trung, Nhon Binh, Tran Hung Dao... These wards have key traffic roads where key works can be found such as markets, hospitals, schools, commercial centers and spiritual tourist sites

4

HHs' assets

78. Like income, daily-life comforts and vehicles also make up one of the criteria for classifying and assessing the community living standards. The values of assets in each HH depend largely on the HH's economic condition. Essential assets or assets of modest values are usually seen in HHs with medium living standards. Conversely, well-off and wealthy HHs would possess assets of much higher values. The HHs' assets are presented in detail in the following table:

Medium-income Poor group Wealthy group group No. **Total** % Assets in use Frequen Frequen Frequen % cyсy сy Car 12 15.1 12 14 Television 79 100.0 2 75 97.4 678 97.6 832 97.8 3 77.1 Bicycle 62 80.5 560 80.6 34 43.0 656 4 Fridge 39 50.6 645 92.8 79 100.0 763 89.7 5 Air-conditioner 5 6.49 160 23 70 88.6 235 27.6 6 Radio 20 26 251 36.1 42 53.2 313 36.8 7 805 Motorbike 72 93.5 654 94.1 79 100.0 94.6 Washing machine 8 10.4 311 44.7 74 93.7 393 46.2 9 Gas stove 54 70.1 675 97.1 77 97.5 806 94.7 10 Audio system 10 13 129 18.6 63 79.7 202 23.7 11 Video player 9 11.7 62 78.5 25.5 146 21 217 100.0 12 73 94.8 693 99.7 79 99.3 Phone 845 13 6.49 102 14.7 73 92.4 180 21.2 High quality furniture

Table 3.11: Households' assets in current use

(Source: Socio-economic survey, February 2016, N = 851)

- 79. It can be said that expensive assets of high value are mainly seen in the group of wealthy households, including cars (14%), high quality furniture (21.2%), audio systems (23.7%), air conditioners (27.6), and washing machines (46.2%). Others are essential and more popular assets, such as color TV (97.8%), motorbikes (94.6%); fridges (98.7%); and telephones (99.3%).
- 80. It can be seen that most of the HHs are well-off and wealthy households usually with the demand for expensive and luxurious assets. These are business/service HHs and a small number of State-employee HHs. For other assets of less value such as electric fans, radios, TV sets, video players, ... there are no big differences among the groups.

Income and spending

81. The HHs' incomes are one of the most important criteria to assess their living standards. The Vietnamese usually do not like to disclose their real income and would add the

- word "about" to the figures in their answers. This has raised the most difficulties in the survey of HHs' incomes.
- 82. Owing to the specific characteristics of each project area in terms of living standards, the assessment of a HH's economic status may vary from area to area. One HH may be regarded as wealthy in one place but may be said to have medium income in another place. Therefore, the surveyor has a very important role to play in classifying the economic status of each HH. The surveyor will base on the following to classify the economic status of a HH:
 - The proportion of poor households according to MOLISA1: the level of income of poor HHs in urban areas (including the poor and near poor) is equal to or less than 900,000 VND/person/month; the level of medium income is from 1,300,000 VND to 1,950,000 VND/person/month; and the average income of wealthy HHs (including well-off and wealthy households) is from 1,950,000 VND/person/month and over;
 - During the survey, the surveyor should carry out close and careful observation of the living standards of the HHs (houses, daily-life comforts in the house, etc.).

Table 3.12: Households' living standards in each ward/commune in the Sub-project area

No.	Surveyed	Wealthy HHs		Medium-income HHs		Poor HHs			%
	areas	Frequency	%	Frequency	%	Frequency	%	Total	·
1	Dong Da	19	2.2	235	27.6	9	1.1	263	30.9
2	Le Hong Phong	2	0.2	51	6.0	2	0.2	55	6.5
3	Ngo May	6	0.7	37	4.3	10	1.2	53	6.2
4	Nhon Binh	16	1.9	90	10.6	24	2.8	130	15.3
5	Phuoc My	3	0.4	25	2.9	2	0.2	30	3.5
6	Quang Trung	13	1.5	96	11.3	5	0.6	114	13.4
7	Tran Hung Dao	17	2.0	114	13.4	13	1.5	144	16.9
8	Tran Quang Dieu	3	0.4	47	5.5	12	1.4	62	7.3
Gı	and total	79	9.3	695	81.7	77	9.0	851	100

(Source: Socio-economic survey, February 2016, N = 851)

Social Assessment Report

¹Theo QĐ Số: 59/2015/QĐ-TTg, ngày 19 tháng 11 năm 2015, về việc ban hành chuẩn nghèo tiếp cận đa chiều áp dụng cho giai đoạn 2016 – 2020.

- 83. According to the 2010-2015 socio-economic development report and the 2016-2020 action plan of Quy Nhon city People's Committee, in recent years, hunger elimination and poverty reduction tasks performed by the City's authorities have obtained significant achievements. However, in many communes/wards there still are HHs with meager income, insufficient to cover material needs and maintain the minimum living standards. Hunger elimination and poverty reduction are still great concerns of the Party Unit, the government and unions at all levels of the city. The goal is then to link socio-economic development tasks with social security and welfare, employment, increased income, and reduced poverty. The proportion of poor HHs as classified by national standards decreased from 4.87% (2010) to 2.74% (2012). There are no more hungry HHs in the whole city. It is planned that in 2015 poor households as classified by national standards would account for less than 2%.
- 84. However, according to the survey on HH's economic status, on the basis of the income level disclosed by respondents, the proportion of poor HHs was higher than the proportion of poor HHs in the whole city. Specifically, in the total number of 851 HHs, wealthy HHs made up 9.3%; HHs with medium income made up 81.7%; and poor HHs accounted for 9.0%. These poor HHs were mainly in the wards/communes of Nhon Binh (2.8%); Tran Hung Dao (1.5%); Tran Quang Dieu (1.4%); and Phuoc My (0.2%). The majority of poor HHs in the surveyed areas are farming HHs and forestry HHs lacking in cultivation land, or fishery HHs lacking in capital for investing in and improving their fishing equipment, buying fishing tools, means, fishing nets; HHs with jobless members, HHs shattered by living difficulties, HHs with makeshift housing, etc.
- 85. In terms of spending, income and savings, from the data provided by respondents, there are substantial differences among the groups of HHs, specifically:

Table 3.13: Average of income and spending

			VND				
No.	Income, spendin	Average	Poor group	Medium- income group	Wealthy group		
1	Average income	HH/month	6,852,000	3,287,000	6,607,000	12,907,000	
1		Person/month		1,187,250	1,848,000	3,226,750	
2	2 Average spending	HH/month	5,140,000	2,80,3000	4,749,000	7,392,000	
2		Person/month		821,750	1,651,750	2,285,000	
3	Average savings	HH/month	2,061,000	314,000	1,998,000	3,622,000	

(Source: Socio-economic survey, February 2016, N = 851)

- The average monthly income of the HHs is 6,852,000 VND/household, in which: the poor group earns 3,287,000 VND per month; the medium-income group:6,607,000 VND; and the wealthy group: 12,907,000 VND. This would mean, the average incomes per capita per month of the poor group, the medium income group and the average group are 1,187,250 VND; 1,848,000 VND and 3,226,750 VND respectively.
- The average monthly spending of the HHs is 5,140,000 VND, in which: the poor group spends 2,803,000 VND; the group of medium income: 4,749,000 VND; and the wealthy group: 7,329,000 VND. The average spending per capita of the poor,

- the medium-income and wealthy groups are 821,750 VND, 1,651,750 VND, and 2,285.000 VND respectively.
- The HHs' average savings are 2,061,000 VND/month. The groups differ in their savings. Specifically, the poor group can save 314,000 VND; the group with medium income: 1,998,000 VND; and wealthy HHs: 3,622,000 VND.
- 86. From the information provided by the HHs, it can be said that there are large differences in the levels of income, spending and savings among the groups of HHs. Wealthier HHs would earn, spend and save more.

HHs' number of income sources:

87. With the present HH economic development, of HH economy usually follows a combined pattern (agriculture coupled with other occupations), resulting in relative abundance in income sources. Seasonal jobs may be less stable but make up a significant source of income in the HH economy.

HH gro	oup	One source	Two sources	Three sources	Four sources	Total	
XV141 IIII-	Frequency	1	53	6	19	79	
Wealthy HHs	%	0.1	6.2	0.7	2.2	9.3	
HHs with	Frequency	56	417	128	94	695	
medium income	%	6.6	49.0	15.0	11.0	81.7	
De en IIII-	Frequency	12	18	47	0	77	
Poor HHs	%	1.4	2.1	5.5	0.0	9.0	
Total	Frequency	69	488	181	113	851	
Total	%	8.1	57.3	21.3	13.3	100.0	

Table 3.14: Number of HH income sources

(Source: Socio-economic survey, February 2016, N = 851)

- 88. HHs with 2 and 3 income sources account for considerable proportions, specifically 57.3% and 21.3% respectively of the total. This is followed by HHs with4 income sources, accounting for 13.3%. The number of HHs with 1 income source is the smallest, accounting for only 8.1%. That the majority of HHs earn their income from various sources is quite understandable: in families with many persons in the working age, each would have and earn income from his/her own job. Therefore, the number of HHs with 2-3 income sources accounts for a relatively high proportion. HHs with only one income source are mainly those depending on paid salary or those of which the members do the same job.
- 89. When asked whether or not their income sources were stable, 82.5% responded that the sources were not stable for different reasons, while the remaining 17.5% affirmed that their monthly income was stable.

Table 3.15: households' income stability

Household group	Stability	T-4-1	
Household group	Yes	No	Total

W141 IIII-	Frequency	31	48	79
Wealthy HHs	%	39.2	60.8	100.0
HHs with	Frequency	118	577	695
medium	%	17.0	83.0	100.0
income	70			
Do on IIIIo	Frequency	0	77	77
Poor HHs	%	0.0	100.0	100.0
Total	Frequency	149	702	851
	%	17.5	82.5	100.0

90. Wealthier HHs make up a higher proportion of positive answer for income source stability than the remaining groups. Specifically, wealthy HHs account for 39.2%; HHs with medium income: 17.0%; and poor HHs: 0%.

91. Vulnerable HHs

"Vulnerable households" is a concept used to mention communities or groups of persons with lower political, economic and social status than the majority, making them more likely to be missed out or their rights violated. Therefore, vulnerable HHs should receive special attention and protection compared with other communities/groups of persons. Vulnerable groups would include poor HHs, ethnic minority HHs, HHs with handicapped people, HHs with lonely and elderly people, and women-headed HHs. In survey programs, defining vulnerable groups is very important and serves as a basis for developing compensation an resettlement plans (if any); especially in the programs and plans of restoring the livelihood, special attention is always paid to these vulnerable groups. The survey results are shown in the following table:

Vulnerable groups Ethnic With Female-HH group Total headed minority elderly/ Poor Others handicapped people 1 14 57 79 0 7 Frequency Wealthy HHs 0 1.3 17.7 8.9 72.2 100 % 64 7 79 43 502 695 Hs with Frequency medium 9.2 1.0 11.4 6.2 72.2 100 % income 8 4 11 1 53 77 Frequency Poor HHs 10.4 5.2 14.3 1.3 68.8 100 % 72 12 104 51 612 851 Frequency Total 8.5 12.2 6.0 1.4 71.9 100 %

Table 3.16: Households' living conditions

(Source: Socio-economic survey, February 2016, N = 851)

- 92. Survey results show that 71.9% of the HHs are not among the vulnerable groups. The group of female-headed HHs accounts for the highest proportion with 12.2%, followed by the group of poor HHs with 8.5%; the group of HHs with elderly and handicapped people with 6.0%; and the group of ethnic minority HHS with 1.4%.
- 93. In terms of HH economy, 17.7% of the group of wealthy HHS, have females as their heads; 8.9% are with elderly/handicapped people; and 1.3% are ethnic minority HHs. In the group of HHs with medium income, 11.4% are female-headed HHs, followed by poor HHs with 9.2%; HHs with elderly/handicapped people with 6.2%; and ethnic minority HHs with 1.0%. In the poor group, female-headed HHs make up 1.0%; poor HHs: 10.4%; the group of HHs with elderly/handicapped people: 6.0%; and the group of ethnic minority HHs: 5.2%. It can be seen from these figures that the vulnerable groups/HHs account for a relatively high percentage. These vulnerable HHs would need satisfactory compensation for impacts from the Project on one hand and would be entitled to priority policies on the other in order to mitigate difficulties and hardships caused by the Project.

3.2.3. Land and residential housing

Housing

- 94. Housing can partly reflect the living standards of HHs whether they are wealthy, of medium income or poor. With better and better economic conditions in recent years, most of the houses are 2-3 solidified construction works with concrete roofs. The houses are also separate from kitchens, bathrooms and toilets. The houses of the HHs are built on titled land with ownership certificates and are convenient for access to the traffic, healthcare, and education; and the majority of houses are built on long-existing residential land.
- 95. Results show that of the 851 HHs surveyed, the general housing trend is building semi-solid houses accounting for 51.4%, followed by solidified houses with 48.2%. In the survey, only 4 HHs are living in temporary houses, accounting for 0.5%. In terms of HH economy, the classification of residential housing is as follows:

Specific and the specif							
Househo	ld group	Solid,	Semi-	Тотополи	Total		
		permanent	permanent	Temporary			
Washby IIIIs	Frequency	45	34	0	79		
Wealthy HHs	%	5.3	4.0	0.0	9.3		
HHs with	Frequency	351	341	3	695		
medium income	%	41.2	40.1	0.4	81.7		
Door IIIIo	Frequency	14	62	1	77		
Poor HHs %		1.6	7.3	0.1	9.0		
Total	Frequency		437	4	851		
Total	%	48.2	51.4	0.5	100		

Table 3.17: Households' type of houses in the Sub-Project area

(Source: Socio-economic survey, February 2016, N = 851)

96. Of the number of wealthy households, 57.0% have solid and permanent houses and 43.0% live in semi-permanent houses; there is no temporary house. In the group of medium-income HHs, 57% live in solid and permanent houses; 49.1% in semi-permanent houses; and 0.4% (3 HHs in temporary houses. In the group of poor HHs, 14% live in solid and permanent houses; 62.0% in semi-permanent houses; and 1 in a temporary house.

Length of residence

97. Another element to be surveyed is the length of residence of HHs in the Project area. This is also a basis for assessing whether the information provided by the HHs are objective, ruthful and accurate. Most often, the longer a HH has been residing in the area, the more understand it would understand the existing situation of the surrounding living environment. This would lead to more practical and realistic judgments and assessment. Survey results show that the HH economy did not depend on and did not affect the HHs' length of residence in the area.

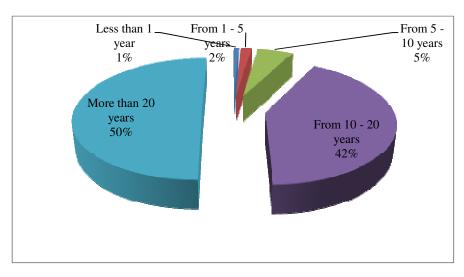


Figure 3.1: Length of residence

(Source: Socio-economic survey, February 2016, N = 851)

98. Up to 50.2% of the HHs have been residing in the area for 20 years or more; 42.1% for 10-20 years; 5.4% for 5-10 years; 1.6% for 1-5 years; and the remaining 0.7% for less than 1 year. It can be seen that more than a half of the HHs have long resided in the area (more than 20 years), with the remaining percentage has had the time of residence of 10 – 20 years. Recorded migrants in the Project wards/communes do not make up a substantial number. The majority of HHs can be said to be "natives" of the area and understand clearly the existing status of the locality. Therefore, the information provided by HHs is completely objective, truthful and practical.

Land origin

Table 3.18: Land origin

Land origin	IIII acanamy	Total
Lana ongin	nn economy	Total

		Wealthy HHs	HHs with medium income	Poor HHs	
Tulo aute d	Frequency	10	140	19	169
Inherited	%	12.7	20.1	24.7	19.9
A 11 4 - 4	Frequency	4	22	4	30
Allocated	%	5.1	3.2	5.2	3.5
D	Frequency	65	533	54	77
Purchased/built	%	82.3	76.7	70.1	76.6
TD (1	Frequency	79	695	77	851
Total	%	19.9	3.5	76.6	100

99. Survey on the origin of land shows that up to 76.6% of the HHs had purchased the land and built their houses on it, followed by 19.9% of the HHs that inherited the land from parents or relatives; only 3.5% of the HHs had been allocated the land by the State. In terms of HH economy, up to 82.3% in the group of wealthy HHs purchased the land/house, 12.7% inherited the land and 5.1% were allocated the land. In the group of medium-income HHs, 76.7% built their own houses; 21.1% inherited the land; and only 3.2% were allocated the land/house by the State. In the group of poor HHs, 70.1% purchased their own land/house; 19.9% inherited the land; and the remaining 3.5% were allocated the land. State employees and civil servants were issued with documents certifying the land/house were allocated by their units, while poor HHs were allocated by the City's government as social welfare support to the poor or social assistance to help improve their living standards.

♣ Land ownership documents

100. For HHs, land and housing do not only provide them a place to live but are also assets of high value. Therefore the certificates of land use/house ownership are proofs of citizens' legal rights over the land/houses they are using. For HHs affected by the Components of the Project, the land use /housing ownership certificates serve as an important legal basis for applying the prices of the compensation as well as financial assistance for the HHs.

Table 3.19: Types of ownership documents by HHs' living conditions

HH group		Types of land use/housing ownership documents						
		Red book/pink book	Allocation certificate issued by agencies	Land/house certification	Land/house leasing contract	No document	Total	
	Frequency	71	0	5	0	3	79	
Wealthy HHs	%	89.9	0	6.3	0	3.8	100	
HHs with	Frequency	601	10	54	2	28	695	
Medium income	%	86.5	1.4	7.8	0.3	4.0	100	
	Frequency	62	1	9	0	5	77	
Poor HHs	%	80.5	1.3	11.7	0	6.5	100	

		Types of land use/housing ownership documents					
HH group		Red book/pink book	Allocation certificate issued by agencies	Land/house certification	Land/house leasing contract	No document	Total
	Frequency	734	11	68	2	36	851
Total	%	86.3	1.3	8	0.2	4.2	100

- 101. Survey results show that 86.3% of the HHs have the "red book/pink book"; 1.3% of the HHs have land/house ownership certificates issued by State agencies; 8.0% obtain temporary land/house certificates. Of the total of 851 HHs participating in the survey, 36 (4.2%) do not have any document on land use/house. This is because: (1) their houses are built on agricultural land adjacent to residential land and the purpose of land use has been changed; (2) the land/house is encroaching on public land: unoccupied land, roadways, sidewalks, canals, ditches; (3) the area of the land is too small to be granted appropriate titles.
- 3.2.4. Existing status of traffic network and traffic density
- 102. Of the total of 851 surveyed HHs, 31.1% are living in the houses right on the streets, making up the highest proportion; 8.9% of the HHs are located on alleys of above 5 m in width; 22.1% are residing on lanes of 3-5 m in width; 16.5% live on lanes of 2-3 m in width; and the remaining 21.4% on lanes of even narrower widths.

Table 3.20: Widths of, streets, alleys and lanes where HHs live

	Н	HHs' economy			
HHs' residen	Wealthy	Medium income	Poor	Total	
Road/street	No. of HHs	25	218	22	265
Road/street	%	31.6%	31.4%	28.6%	31.1%
Long of Son in width	No. of households	10	55	11	76
Lane of >5m in width	%	12.7%	7.9%	14.3%	8.9%
	No. of households	14	154	20	188
Lane of 3 - 5m in width	%	17.7%	22.2%	26.0%	22.1%
	No. of households	14	114	12	140
Lane of 2 - 3m in width	%	17.7%	16.4%	15.6%	16.5%
	No. of households	16	154	12	182
Lane of < 2m in width	%	20.3%	22.2%	15.6%	21.4%
Total	No. of households	79	695	77	851
Total	%	100%	100%	100%	100%

(Source: Socio-economic survey, February 2016, N = 851)

103. In the recent years, the system of urban roads and inner-city roads of Quy Nhon City have received consistent investments, basically meeting traffic needs of local residents. The structure of the urban roads is quite diverse with asphalted roads, concrete roads, etc. However there still exist some earthen roads. Survey results on the situation of the

Tran Hung Dao

Tran Quang Dieu

Total

%

% Number

%

Number

road network leading to the HHs in each commune/ward in the Project area are shown in detail in the following table:

Road features Commune/ward Total Asphalted Concrete Stone/brick Earthen road road paved road road Number 81 172 6 263 Dong Da % 30.8% 65.4% 1.5% 2.3% 100% Number 24 30 0 55 1 Le Hong Phong % 0% 43.6% 1.8% 100% 54.5% 29 24 0 0 53 Number Ngo May % 54.7% 0% 45.3% 0% 100% Number 45 0 12 130 73 Nhon Binh % 34.6% 56.2% 0% 9.2% 100% Number 3 27 0 0 30 Phuoc My % 10% 90% 0% 0.0% 100% Number 64 50 0 0 114 Quang Trung % 56.1% 43.9% 0% 0% 100% 18 0 144 Number 63 63

43.8%

17.7%

17.7%

11

320

43.8%

51.6%

51.6%

471

32

Table 3.21: Current status of access roads to HHs in each commune/ward

(Source: Socio-economic survey, February 2016, N = 851)

12.5%

8.1%

8.1%

28

5

0%

14

32

22.6%

22.6%

100%

100%

100%

851

62

- 104. The table shows that 51.6% of access roads to HHs are concrete roads; 17.7% are asphalted roads; 8.1% are stone/brick/cement paved roads; and the remaining 22.6% are earthen roads. It can be said that the road network in the urban areas in general and the quality of lanes in particular have received uniform investments and upgradation, facilitating residents' travel. However, earthen roads and stone/brick paved roads in the Project area still make up a high percentage (30%). Earthen roads are concentrated in the outskirt communes/wards, with sparse population such as the wards of Tran Quang Dieu, Nhon Binh, Phuoc My, etc.
- 105. Survey results on the quality of the traffic roads/lanes in the Project area show that synchronous investments have not been made in the roads in the Project area and, the quality of roads in this area is not very good. Specifically, when asked about the quality of roads/lanes leading to their houses, only 39.1% of surveyed HHs said that the roads were good in general; 19.7% said the roads were narrow; 11.3% said that the roads was usually flooded; and 13.6% said the pavement was low.

Table 3.22: Respondents' assessment by gender of the quality of roads/lanes

Quality of roads/lanes	Gen	Total
	Males	Females

Quality of roads/lanes		Gen	Gender		
		Males	Females	Total	
Cood in general	No. of persons	221	122	333	
Good in general	%	38.9%	39.5%	39.1%	
Hanally flooded	No. Of persons	62	34	96	
Usually flooded	%	11.4%	11.0%	11.3%	
N	No. Of persons	102	66	168	
Narrow	%	18.8%	21.4%	19.7%	
Lavypayamant	No. Of persons	70	46	116	
Low pavement	%	12.9%	14.9%	13.6%	
Bumpy; difficult to	No. Of persons	8	12	20	
travel	%	1.5%	3.9%	2.4%	
Too dusty	No. Of persons	80	40	120	
Too dusty	%	14.8%	12.9%	14.1%	

3.2.5. Existing status of power supply and HHs' power consumption

106. In recent years, the second phase of Quy Nhon city power grid improvement project have been funded by SIDA (Swiss international cooperation agency) to procure imported equipment and accompanied services in order to improve the load of the power distribution grid with the aim to meet power demand for socio-economic development in Quy Nhon City; to decrease power losses in the distribution grid; to generalize the 22 kV medium voltage power grid together with the transformer station, facilitating safe and continuous supply of electricity. According to the data released by the City's power company, 100% of the HHs registering the use of power have been served with separate power meters. However, survey results are obtained as follows:

Table 3.23: Power supply currently used by HHs

		Power supply cu		
Househ	old group	With separate	Shared	Total
		meters	Shared	
W/ 141 IIII -	Frequency	79	0	79
Wealthy HHs	%	100.0	0.0	100,0
HHs with	Frequency	693	2	695
medium income	%	99.7	0.3	100,0
D IIII	Frequency	77	0	77
Poor HHs	%	100.0	0.0	100,0
T-4-1	Frequency	849	2	851
Total	%	99.8	0.2	100,0

(Source: Socio-economic survey, February 2016, N = 851)

107. Electricity has been supplied to 100% of the HHs, of which 99.8% of households have their own power meters and only 0.2% have to share the supply with other HHs. The 3 HHs that share the power supply are those with medium income. Survey results show

that the HHs that share the power supply are those that are building or have just built their new house and have not fulfilled the formalities of applying for the service. These HHs are expected to be able to use the supply and have their own meters after their houses have been completed. Thus, power supply can be said to present no difficulty to HHs in the Project.

108. Survey results on how the current intensity of the power current is or whether the current supply meets the demand of the HHs' power, show the following data:

Household group		Current into	Total	
	<i>&</i> 1	Strong enough	Normal	1000
W 141 IIII-	Frequency	59	20	79
Wealthy HHs	%	74.7	25.3	100
HHs with	Frequency	526	169	695
medium income	%	75.7	24.3	100
DIIII-	Frequency	50	27	77
Poor HHs	%	64.9	35.1	100
m . 1	Frequency	635	216	851
Total	%	74.6	25.4	100

Table 3.24: Current intensity in the Sub-Project area

(Source: Socio-economic survey, February 2016, N = 851)

- 109. In the survey, 74.6% of the HHs stated that the current intensity was strong enough; 25.4% said that the current intensity was normal; and no HHs said that the quality of power was poor and could not meet the daily life demand for power. In terms of HH economy, there is no great difference among the groups of HHs on the issue 74.7% of wealthy HHs, 75.7% of HHs with medium income; and 64.9% of poor HHs said that power supply was strong enough. Similarly, 25.3% of wealthy HHs, 24.3% of HHs with medium income, and 35.1% of poor HHs stated that the current intensity was normal but still was able to meet local residents' demand for power.
- 3.2.6. Existing status of water supply and HH's water consumption

Water sources:

110. Clean water is one of the criteria in assessing the development and the civilization of urban residents. Survey on water sources currently used for HHs' daily-life activities in the Sub-Project area shows that the water used by the HHs in the Sub-Project area is mainly tap water supplied by the City's water supply company (accounting for 98.4%), except for only a small proportion of HHs. However, survey results show only 60.5% of the HHs in the Sub-Project area use only 1 water source – tap water from the city's company and 39.5% of the HHs use 2 water sources or more (usually tap water and water from bored wells), mainly in the wards of Tran Hung Dao, Quang Trung, Le

Hong Phong... These HHs would use tap water for daily-life activities and water from bored wells for other purposes such as watering trees, washing cars and motorcycles, etc.

Table 3.25: Number of source of water supply in use of households in commune/ward

Number of water sources		House			
		Wealthy	Medium income	Poor	Total
0.1	Frequency	43	417	55	515
Only one source	%	54.4	60	71.4	60.5
From two sources or	Frequency	36	278	22	336
more	%	45.6	40	28.6	39.5
	Frequency	79	695	77	851
Total	%	19.9	3.5	76,6	100

(Source: Socio-economic survey, February 2016, N = 851)

♣ Amounts of water consumption

The amount of water consumed by HHs in essential needs such as drinking, cooking, bathing, and washing can be relatively quantified and calculated in the following table. The average amount of water consumption can be seen at 98.25 liters/person/day (equivalent to 402 liters/HH).

Table 3.26: HHs' daily water consumption for various purposes

		On average		Poor HHs		Average HHs		Wealthy HHs	
No.	For daily life activities	L/HH/ day	L/HH/ day						
1	Drinking	10,045	2,45	9,84	2,4	9,594	2,34	10,045	2,45
2	Cooking	79,048	19,28	76,7602	18,722	77,449	18,89	87,33	21,3
3	Bathing, washing	314,88	76,8	252,765	61,65	339,9105	82,905	344,81	84,1
Total/ on average (L)		402.825	98,25	339,3652	82,772	426,9535	104,135	442,185	107,85

(Source: Socio-economic survey, February 2016, N = 851)

111. When being asked whether the current water volume is enough for family use, the responses did not differ much among the groups of HHs in the Project area. Specifically, 750 HHs said that water supply was enough (accounting for 88.1%); and 101 other HHs said that it was not enough for use (11.9%). So, basically the amount of tap water supply is currently sufficient for local HHs' use. Consultation with the representatives of commune/ward leaders and HHs in the Sub-Project area shows that in the Sub-Project area, only Phuoc My ward and some other HHs located far from residential areas were still facing difficulty in getting connected to the city's running water source., These households have had to get connected to other alternative water sources for daily-life activities.

Table 3.27: Assessment of water supply volumes to groups of HHs in the Project area

Assessment of v	vater supply	HH	Is' living condi	tions		
volum	* * *	Wealthy	Medium income	Poor	Total	
Sufficient	No. of HHs	73	607	70	750	
	%	92.4%	87.3%	90.9%	88.1%	
Not sufficient	icient No. of HHs		88	7	101	
	%	7.6%	12.7%	9.1%	11.9%	
Total	No. of HHs	79	695	77	851	
Total	%	100%	100%	100%	100%	

₩ Water source quality

112. When asked of the quality of water that the HHs are using, 88.6% of surveyed HHs said that the water they are using is clean and hygienic. These HHs are mainly those with access to the City's source of clean water. In Quy Nhon city there are 13 well pumping stations along Ha Thanh river with a capacity of 125-200m³/h/well; the depths of the drilled wells are 18.5–25 m. The total volume of exploited water is 28,500 m³/day. The water from the wells are pumped and conducted through Ø500 and Ø400 pipelines along National highway 1D to the pressurized pumping station at the foot of Ba Hoa mountain with 2 reservoirs of 3,000 m³/each. With this system, running water is supplied to 100% of HHs in inner-city wards and Dieu Tri town of Tuy Phuoc district. Survey results show that 95.3% of surveyed HHs said that disruption of water supply does not occur in their residential area.

3.2.7. Existing status of drainage and flooding

Existing drainage status

- 113. Poor drainage, usually leading to flooding, and stagnation of wastewater in the residential areas of most communes/wards of the city is one of the most distressing problems raised by respondents to questionnaires and participants in group discussion.
- 114. Therefore, a survey on the existing drainage situation and assessment of shortcomings before working out proper measures to improve the sewerage system up to the aspirations of locals in the Project area is one of the main tasks of the Project.
- 115. During the survey, the surveyors have combined in-depth interviews with field observation in order to obtain uniform evaluation of the existing drainage status in local residential areas. The survey results on the drainage sewerage system in residential areas are presented in the following table:

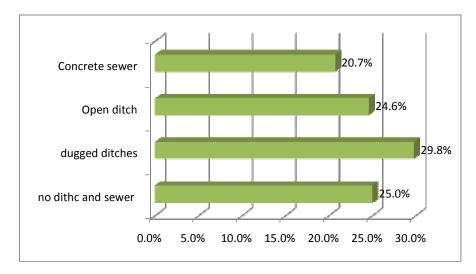
Table 3.28: Existing status of the sewerage system in the Sub-Project area

		Sewer	ls				
Communes/wards		Concrete sewers	Open canals	Dug canals (with no construction works)	Without sewer system	Total	
Dong Da	Amount	59	67	97	40	263	
Dolig Da	%	26.2%	29.3%	36.9%	15.2%	100%	
Le Hong Phong	Amount	22	5	14	13	55	

		Sewers	system in cor	nmunes/ward	ls	
Communes	s/wards	Concrete sewers	Open canals	Dug canals (with no construction works)	Without sewer system	Total
	%	50.9%	9.1%	25.5%	23.6%	100%
Ngo May	Amount	3	26	15	9	53
ngo way	%	5.7%	49.1%	28.3%	17%	100%
Nhon Binh	Amount	38	34	22	36	130
	%	36.9%	26.2%	16.9%	28%	100%
DI M	Amount	0	3	5	24	30
Phuoc My	%	0%	10%	17%	90%	100%
О	Amount	3	18	57	36	114
Quang Trung	%	2.6%	15.8%	50%	31.6%	100%
T H D	Amount	29	54	27	34	144
Tran Hung Dao	%	20.1%	37.5%	18.8%	23.6%	100%
Tana Ossana Diese	Amount	22	2	17	21	62
Tran Quang Dieu	%	35.5%	3.2%	27.4%	33.9%	100%
	Amount	176	209	254	213	851
Total	%	20.7%	24.6%	29.8%	25%	100%

116. Survey results show that the sewer system in the Sub-Project area is still poor and is lacking in consistency. Up to 25% of the surveyed HHs said that there was no sewer system in their area; 29.8% of the sewers were just earthen dug ditches; only 20.7% of the surveyed HHs said that the sewer system was made of the concrete with covers; 24.6% of the HHs stated that the sewer system was just open canals without covers. The data in the table show that Phuoc My ward is the ward suffering from the poorest sewer system in the Sub-Project area; 90% of local HHs surveyed said that there were no drainage sewers or ditches in the area and this was an outskirt ward in the suburbs of Quy Nhon city. In the Sub-Project areas, even in such urban wards as Dong Da, Le Hong Phong, Nhon Binh...the sewer system has not been consistently built, with sewers totally absent in many residential areas ,and soil dug ditches without construction works are still present in many residential areas.

Figure 3.2: Existing status of sewer systems in the Sub-Project area



117. Survey results on the sewerage system of the HHs in the Project area show 40.5% of the HHs have been connected to the main sewerage network; only 2.7% of the HHs discharge wastewater directly into rivers/canals. However, up to 22.6% of the HHs allow wastewater to be absorbed into the ground or to run off. This is one of the reasons leading to wastewater stagnation, polluting the environmental in residential areas. The survey results on the discharge of wastewater from HHs in the Project area are presented in detail in the following table:

Table 3.29: HHs' drainage system by living standards

No.	Where wastewater is discharged	Poor HHs		HHs with medium income		Wealthy HHs		Total	%
	uischargeu	Frequ ency	%	Frequ ency	%	Frequ ency	%		
1	From toilets into septic tanks	30	45.5	284	47.2	22	32.8	336	45.7
2	From washing places/kitchens into septic tanks	17	25.8	185	30.7	18	26.9	220	29.9
3	Into common sewerage system (open/close)	30	39	285	41	30	38	345	40.5
4	Directly into rivers/lakes/canals	4	6.1	15	2.5	1	1.5	20	2.7
5	Self-absorbed, running off	14	21.2	139	23.1	13	19.4	166	22.6
6	Don't know	0	0	7	1.2	2	3	9	1.2

(Source: Socio-economic survey, February 2016, N = 851)

118. As surveyed by living conditions, poor HHs discharging wastewater directly into rivers/lakes/channels account for the higher proportion with 6.1%; this proportion gradually decreases in HHs with higher living standards; specifically, the group of HHs with medium income practicing such discharge makes up 2.5%; and wealthy HHs: 1.5%. This may be due to many reasons, but one of these is financially related when initial investments have to be made. For the HHs in Phuoc My ward and some other areas in the wards of Dong Da, Le Hong Phong, Nhon Binh... where there is no sewerage system, there is no great difference in the proportions of poor HHs, HHs with

medium income and wealthy HHs allowing wastewater to run off, be absorbed into the ground.

The quality of wastewater drainage in residential areas

- 119. The absence of sewer systems would result in uncollected and untreated wastewater overflowing into the roads and the environment, , polluting water sources and badly affecting HHs' living environment. This poses a potential risk of disease outbreaks.
- 120. Survey results on the quality of wastewater drainage in the Project area show that only 40.8% of the surveyed HHs said that the drainage quality was good; 20.2% of the surveyed HHs said that the drainage quality in residential areas was at an average level; and 39% said that the drainage system was poor. The data of the drainage quality in each ward in the Sub-Project area are shown in the following table:

W	ard	Dra	ainage quality		
VV (aru	Good	Average	Poor	Total
Dong Da	Number of HHs	84	39	140	263
	%	31.9%	14.8%	53.2%	100%
Le Hong	Number of HHs	10	40	5	55
Phong	%	18.2%	72.7%	9.1%	100%
Ngo May	Number of HHs	53	0	0	53
	%	100%	0%	0%	100%
Nhon Binh	Number of HHs	25	25	80	130
	%	19.2%	19.2%	61.5%	100%
Phuoc My	Number of HHs	0	15	15	30
	%	0%	50%	50%	100%
Quang Trung	Number of HHs	114	0	0	114
	%	100%	0%	0%	100%
Tran Hung	Number of HHs	51	27	66	144
Dao	%	35.4%	18.8%	45.8%	100%
Tran Quang	Number of HHs	10	26	26	62
Dieu	%	16.1%	41.9%	41.9%	100%
Total	Number of HHs	347	172	332	851
	%	40.8%	20.2%	39.0%	100%

Table 3.30: Drainage quality in the Sub-Project area

(Source: Socio-economic survey, February 2016, N = 851)

121. Further study of the drainage quality in the said wards of the Sub-Project and results obtained from group discussions in-depth interviews for HHs in the Sub-Project area show that frequent flooding in Quy Nhon City, during the rainy season (August, September and October), especially in the wards of Dong Da, Nhon Binh, Tran Quang

Dieu, Tran Hung Dao... was due to the low road surfaces and the absence of drainage sewers.

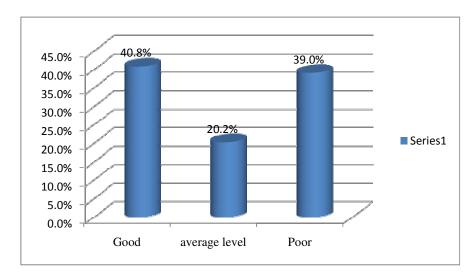


Figure 3.3: Drainage quality in the Sub-project catchments

(Source: Socio-economic survey, February 2016, N = 851)

- 122. The existing drainage system of Quy Nhon city is a combined sewer system, which is in fact a gravity drainage system built in the 1990s. In this system, the drainage routes have been generally built for carrying off stormwater and wastewater into the nearest receiving bodies (rivers, lakes or seas).
- 123. There has been no clear-cut formation of a drainage system in the western area of the city and in Phuong Mai peninsula area. The system in these areas is completely a gravity drainage system without appropriate structures for discharge gates, resulting in the great dependence of the drainage system of low-lying inner-city areas on the tidal regime. Wastewater and stormwater from residential areas of the City are collected by secondary and tertiary sewer systems and conducted into the primary sewer pipeline, then discharged directly into balancing lakes or other receiving bodies. The main receiving bodies are Ha Thanh river, Thi Nai lagoon, Dong Da lake, Phu Hoa lake and Quy Nhon bay.

Wish for investment to be made in the sewer system in the Sub-Project area

124. Survey results on HHs' wish for investment to be made in building the sewer system in the Sub-Project area show that 75.6% of the surveyed HHs said that it was urgent to build such a system; 23.2% said that such a system should be built if conditions permit; and only 1.2% of the surveyed HHs said that it was not necessary to build a sewer system. It can be seen that the majority of HHs in the Sub-Project area would need such a sewer system in the area. Survey results on HHs' ability to get connected to the main sewer system of the Project, 62.6% of the surveyed HHs said that they would be ready for such connections,; these HHs are those with medium income residing in the wards of Dong Da, Nhon Binh, Tran Quang Dieu, and Tran Hung Dao. These wards have been frequently flooded and suffered from stagnant wastewater due to the degradation of the existing sewer system.

Table 3.31: HHS' desire to get connected to the main sewer system in the Sub-Project area

НН е	conomy		get connected to s sewer system	Total
		Ready	Not ready	
Wealthy HHs	Number of households	41	38	79
	%	4.8%	4.5%	9.3%
HHs with	Number of households	443	252	695
medium income	%	52.1%	29.6%	81.7%
Poor HHs	Number of households	49	28	77
	%	5.8%	3.3%	9.0%
Total	Number of households	533	318	851
	%	62.6%	37.4%	100.0%

Flooding

125. Quy Nhon City formerly suffered from frequent localized flooding in the rainy season (from September to November) caused by with high flow rates of water coming from mountain tops pouring down into the city. Flooding did not occur not only in low-lying residential areas with poor drainage, but also in some main streets right in inner-city areas. However, at present only a number of areas prone to flooding remain, where the terrain is low in elevation or the downgraded sewer lines have not been replaced. Survey results show that 35.4% of the surveyed HHs said that in the recent years flooding has still occurred in the area where they live, especially the wards of Dong Da, Nhon Binh, Phuoc My, and Tran Quang Dieu have been suffering from frequent flooding in the rainy season..

Table 3.32: Flooding in the Sub-Project area

Wa	nd	Floo	ding	
vv a.	ıu	Yes	No	Total
	Number of	130	128	258
Dong Da	households			
	%	50.4%	49.6%	100%
Le Hong Phong	Number of	1	23	24
	households			
	%	4.2%	95.8%	100%
	Number of	0	53	53
Ngo May	households			
	%	0%	100.0%	100%
	Number of	60	69	129
Nhon Binh	households			
	%	46.5%	53.5%	100%
Phuoc My	Number of	26	4	30

Wa	nd	Floo	ding	
vv a	ıu	Yes	No	Total
	households			
	%	86.7%	13.3%	100%
Quang Trung	Number of	0	113	113
	households			
	%	0%	100%	100%
	Number of	36	105	141
Tran Hung Dao	households			
	%	25.5%	74.5%	100%
Tron Ouona	Number of	33	28	61
Tran Quang Dieu	households			
Dieu	%	54.1%	45.9%	100%
	Number of	286	523	809
Total	households			
	%	35.4%	64.6%	100%

- 126. Survey and investigation show that flooding in the Sub-Project areas is caused by heavy rains as the local system of canals and ditches is unable to drain all the water from the areas. Poor drainage has been mentioned by many local residents and leaders, specifically:
 - Phu Hoa canal: in phase 1 of the Project, in order to improve the capacity of draining stormwater from the catchment on Nguyen Thi Minh Khai Street and Ly Thai To Street into Phu Hoa canal, dredging was carried out in the whole of Phu Hoa canal. However, the canal bed has now been narrowed down by indiscriminate dumping of waste and waste construction materials by residents on the canal banks. This has reduced the canal bed to a width of only 1.2m. The two sides have almost been embanked (in the final section of Phu Hoa canal pouring into Phu Hoa lake, the 2 sides are still earthen banks). This eventually results in flooding after the heavy and prolonged rains, as the canal is unable to promptly drain stormwater.
 - Upstream ditch of Bau Sen lake: the existing ditch route upstream Bau Sen lake was built in 1992 with rip-rap stone. According to information provided by Binh Dinh Water Supply and Drainage Joint-Stock Company and the interview results obtained from HHs living in this area, this ditch route is degrading seriously, with a number of slumping sections, reducing the drainage capacity in the area.
 - Tran Hung Dao Street: the sewers in the lanes/alleys are small and were built long ago, and have now been degraded. The poor quality results in frequent flooding, polluting the environment and affecting local residents' health.
 - Hoc Ba Bep area: this is one of the most flooded areas at present, distressing local communities. Flooding is caused by heavy rains sending large volumes of stormwater down from Ba Hoa mountain. Additionally, this is a naturally low-lying area compared with Tran Hung Dao Street. Besides, the existing ditches and sewers have been downgraded and are located under residential houses, with sections narrowed down, unable to drain effectively.

- Hung Vuong Street: there is presently no sewer system along this route. This is an area with a natural low elevation, usually flooded by heavy rains.
- Bach Dang Street: there is currently a steel-reinforced concrete sewer pipeline of D600mm along the street. This pipeline has now already been seriously downgraded, much limited drainage capacity.

3.2.8. Existing status of waste collection and treatment

127. Solid waste and domestic waste present one of the problems in major cities, especially in a developing city as Quy Nhon City. Huge volumes of daily domestic waste is one of the urgent issues to be addressed with appropriate and effective solutions so as to ensure both the environmental landscape and living quality and protect the environment with the collection, transportation, disposal and treatment of solid waste. This is also a common difficulty shared by developing countries, municipalities and urbanized areas in general. Surveys on the collection and treatment of solid waste are expected to help comprehend the whole context before working out introducing proposals and recommendations to managers, local government authorities and local residents in the area. Survey results show 96.9% of the HHs confirmed that collection of domestic waste has been carried out in the Sub-Project area. The forms of handling domestic waste in each ward are shown in the following table::

Table 3.33: HHs' forms of handling domestic waste in the Sub-Project area

			Forms of he	andling was	te		
Ware	d	Waste collected at doorstep	Disposing at designated places	Dumping onto empty land	Burying/burning	Total	
Dong Da	Number of households	243	20	0	0	263	
	%	92.4%	7.6%	0%	0%	100%	
Le Hong Phong	Number of households	51	4	0	0	55	
	%	92.7%	7.3%	0%	0%	100%	
Ngo May	Number of households	53	0	0	0	53	
<i>C</i> ,	%	100%	0%	0%	0%	100%	
Nhon Binh	Number of households	79	27	4	20	130	
	%	60.8%	20.8%	3.1%	15.4%	100%	
Phuoc My	Number of households	29	1	0	0	30	
	%	96.7%	3.3%	0%	0%	100%	
Quang Trung	Number of households	114	0	0	0	114	
	%	100%	0%	0%	0%	100%	
Tran Hung Dao	Number of households	83	61	0	0	144	
_	%	57.6%	42.4%	0.0%	0.0%	100.0%	
Tran Quang Dieu	Number of households	45	15	2	0	62	

			Forms of handling waste						
Ward		Waste collected at doorstep	Disposing at designated places	Dumping onto empty land	Burying/burning	Total			
	%	72.6%	24.2%	3.2%	0.0%	100%			
Total	Number of households	697	128	6	20	851			
	%	81.9%	15%	0.7%	2.4%	100%			

- 128. Results obtained from consultation with representatives of the local government authorities in the Sub-Project area show that at present the collection of solid waste in Quy Nhon City is carried out in all the wards/communes with a collection rate of 95% of the waste. In the 4 islands and peninsulas, waste collection reaches 80%. In the whole city, waste collection reaches 85%.
- 129. In Quy Nhon City, local residents would usually put waste into nylon bags and place them on the sidewalks, at the end of lanes/alleys, or in front of their houses. Then, URENCO workers would arrive and collect the bags. At present, waste bags are placed at these places at any time during the day or night, not only at expected collection times.
- 130. Every day, the amounts of domestic waste from residential areas, streets, agencies... in inner-city areas are collected and transported to temporary gathering sites of each area by Quy Nhon UNRENCO workers. Solid waste from markets in the city is collected and transported to temporary gathering sites by the market management unit.
- 131. At present, there are about 64 sites in Quy Nhon city for collecting solid domestic waste. After being collected, solid waste will be gathered at temporary sites before being transported by garbage trucks of Quy Nhon URENCO to Long My solid waste treatment site 20 km to the southwest of the city center. The daily times for transporting solid waste are mainly 3-5h AM and 15 17h.
- 3.2.9. Existing status of environmental sanitation and health

♣ Environmental sanitation of HHs

- 132. The biggest difference between the rich and the poor is the gap in income, living standards, educational conditions, and conditions of accessing services of clean water, environmental sanitation, healthcare ... The poor would not have enough conditions to improve their living standards and their daily-life habits would mainly depend on the natural conditions. Due to these limitations, the majority of the locals with low income in the Sub-Project area have not paid enough attention to building hygienic toilets. The possession of "standardized" toilets has become an indispensable demand of the modern and civilized society.
- 133. Survey results on the possession of toilets show that the majority of the HHs have their own toilets. Of these toilets, septic toilets account for the highest proportion of 58.7%; semi-septic toilets account for 41.6%; only 0.7% of the HHs still use makeshift toilets. Economically disadvantaged HHs, generally use drop-hole toilets or discharge human waste directly into the environment.

Medium-income Wealthy group Poor group group No. Type of toilet Total % Frequency % Frequency % Frequency % Septic toilet 65 7.6 411 48.3 24 2.8 500 58.7 7.2 Semi-septic toilet 13 1.5 280 32.9 62 355 41.6 3 Bin toilet 3 0.4 1 0.1 4 0.5 Makeshift toilet 1 0.1 1 0.1 2 0.2 69.5 **Grand total 78** 9.2 81.7 **78** 9.1 851 100

Table 3.34: Existing status of HHs' use of toilets

- 134. In general, as the HHs in the Sub-Project area have relatively stable income, local residents have paid more attention to improving the living quality of their families. However, as shown by the results, only 59.5% of the HHs said that their toilets were clean and hygienic; 37.7 % said that their toilets were dirty and not hygienic; and the rest had no idea on the issue or refused to answer.
- 135. Those HHs stating that their toilets were clean and hygienic are mainly those with septic toilets; conversely, the HHs using other types of toilets (drop-hole toilets, direct discharge into the environment) said that their toilets in current use were dirty and not hygienic. However, this is only preliminary assessment by the respondents and might differ much from reality. In general, in the wards of the Sub-Project area, whatever types of toilets the HHs may use, wastewater from these toilets would penetrate into the ground or be discharged directly into canals and ditches, seriously polluting the surrounding environment. Therefore, it is now necessary to enhance propaganda in order to change local residents' habits and behavior, hence limiting environmental pollution which might be caused by bad sanitation habits...

Medium-income Wealthy group Poor group group Quality of toilets Total % No. Frequency % Frequency % Frequency % 1 Clean, hygienic 44 5.2 410 48.2 52 6.1 506 59.5 Dirty, not hygienic 34 4.0 268 31.5 19 2.2 321 37.7 3 6 0.7 24 2.8 No idea/no answer 1 0.1 17 2.0 81.7 Grand total **79** 9.3 695 77 9.0 851 100

Table 3.35: Quality of HHs' toilets

(Source: Socio-economic survey, February 2016, N = 851)

136. On the basis of the proposal by the Department of Education and Training of Quy Nhon City, proposals are made for the construction of 10 sanitation blocks in primary schools and secondary and high schools in Quy Nhon City, in order to create hygienic conditions for the educational environment. The Consultant has carried out surveys on the quality of the toilets in primary schools, secondary schools and high schools and a

number of public toilets in Quy Nhon City. The survey results on the quality of toilets in such areas as primary schools, healthcare clinics, cultural houses,.... in local residential areas show only a small proportion of good remarks made by surveyed HHs on the quality of these toilets. The people's evaluation of the quality of toilets in the Sub-Project areas is shown in the following table:

Table 3.36: Public's evaluation of the quality of toilets in the Sub-Project areas

No.	Surveyed areas	Good		Normal		Bad		No idea		Total	%
		Frequency	%	Frequency	%	Frequency	%	Frequency	%		
1	Nursery schools	334	39.3	353	41.5	148	17.4	15	1.8	850	100
2	Primary schools	95	47.7	92	46.2	6	3.0	6	3.0	55	100
3	Lower secondary schools	111	61.3	62	34.3	0	0	8	4.4	181	100
4	Ward healthcare clinics	115	62.8	54	29.5	4	2.2	10	5.5	183	100
5	Cultural houses	37	33.3	32	28,8	2	1.8	40	36	111	100
6	Parks	14	12.5	50	44.6	6	5.4	42	37.5	112	100

(Source: Socio-economic survey, February 2016, N = 851)

3.2.10. Need of rehabilitating toilets

137. Survey results on the needs of rehabilitating the family toilets show that 15.5% of the HHs in the project area expressed the need of improving their toilets, of which 4.7% proposed loans for this need. The following table presents survey results on HHs' need of improving/building their toilets within the 3 coming years:

Table 3.37: Need of improving/building toilets within 3 coming years

		HHs	s' living condit	ions	
Need of improving	toilets	Wealthy	Medium income	Poor	Total
Vac and calf naving	No. of HHs	5	78	9	92
Yes and self paying	%	6.3%	11.2%	11.7%	10.8%
Vac and propaging lang	No. of HHs	3	33	4	40
Yes and proposing loans	%	3.8%	4.7%	5.2%	4.7%
No	No. of HHs	71	584	64	719
INO	%	89.9%	84.0%	83.1%	84.5%
Total	No. of HHs	79	695	77	851
Total	%	100%	100%	100%	100%

(Source: Socio-economic survey, February 2016, N = 851)

Environmental pollution in the Sub-Project area

138. Survey results show 26.8% of the HHs said that the surrounding environment had been polluted. Of the wards, Le Hong Phong, Phuoc My,

Tran Quang Dieu, and Nhon Binh are the wards of which the environmental pollution is most complained about by local residents.

Table 3.38: Assessment by local residents' on the living environment in the Project area

Wa	rd		vironment in the trea polluted?	
		Yes	No	Total
Doma Do	No. of HHs	38	225	263
Dong Da	%	14.4%	85.6%	100%
I - II Di	No. of HHs	47	8	55
Le Hong Phong	%	85.5%	14.5%	100%
N M	No. of HHs	0	53	53
Ngo May	%	0%	100%	100%
Nils and Disale	No. of HHs	65	65	130
Nhon Binh	%	50.0%	50.0%	100%
Dhara Mar	No. of HHs	25	5	30
Phuoc My	%	83.3%	16.7%	100%
O T	No. of HHs	0	114	114
Quang Trung	%	0%	100%	100%
T II D	No. of HHs	10	134	144
Tran Hung Dao	%	6.9%	93.1%	100%
Tran Over a Disse	No. of HHs	43	19	62
Tran Quang Dieu	%	69.4%	30.6%	100%
Total	No. of HHs	228	623	851
Total	%	26.8%	73.2%	100%

(Source: Socio-economic survey, February 2016, N = 851)

139. Investigation on the causes of pollution has yielded many different opinions. To many respondents, pollution of the living environment was caused by wastewater, solid waste, flooding...in which, flooding in the rainy season is one of the main reasons resulting in environmental pollution in the local area, followed by stagnant domestic wastewater. The types and levels of pollution in the areas are presented in the following table:

Table 3.39: Types of pollution in the Sub-Project area

								1	ypes	of pollution	on						
No	HH economy	HH wastewater from sewer se			d odor from sewers Noise		se	Dust		Flooding by storm		Dome wastev		Waste and wastewater from business activities		Stagnant wastewater from rivers/lakes	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
1	Wealthy HHs	4	1.8	1	0.5	4	1.8	8	0.9	7	3.1	2	0.6	7	0.8	1	0.5
2	HHs with medium income	47	20.6	27	12.5	47	20.6	11	13.5	76	33.2	28	8.5	95	11.2	22	10.2

								Т	ypes	of pollution	on						
No	HH economy	waste	Domestic wastewater from sewer Bad odor from sewers		Noi	se	Dus	t	Flooding by storn		Dome wastev		Waste wastew from bus activit	ater siness			
		Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
3	Poor HHs	6	2.6	5	2.3	6	2.6	13	1.5	15	6.6	3	0.9	5	0.6	3	1.4
	Total	57	20.5	33	15.3	57	20.5	136	16.0	98	42.8	33	10	107	12.6	26	12.1

Table 3.40: Levels of impacts from pollution sources by living standards

Causes of pollution	No.	Impact level		group		ium- e group	gro	ulthy	Total	%
ponution			Frequ ency	%	Frequ ency	%	Frequ ency	%		
	1	Serious	5	2.5	41	20.3	4	2.0	50	24.8
	2	Substantial	4	2.0	22	10.9	2	1.0	28	13.9
1. Noise	3	Mild	12	5.9	10	50.2	7	3.5	124	61.4
		Tota	21	10.4	168	83.2	13	6.4	202	100
			13	9.6	115	84.6	8	5.9	136	16.0
	1	Serious	3	2.2	12	8.8	1	0.7	16	11.8
2. Dust	2	Substantial	5	3.7	32	23.5	2	1.5	39	28.7
Z. Dust	3	Mild	5	3.7	71	52.2	5	3.7	81	59.6
		Tota		11.8	39	28.7	81	59.6	136	100
			15	6.6	76	33.2	7	3.1	89	42.8
	1	Serious	2	2.0	13	13.3	2	1.0	17	17.3
3. Flooding	2	Substantial	7	7.1	32	32.7	3	3.1	42	42.9
due to rain	3	Mild	6	6.1	31	31.6	2	2.0	39	39.8
		Tota	l 17	17.3	42	42.9	39	39.8	98	100
4. Wastewater	1	Serious	1	3.1	3	9.4	-	-	4	12.5
from domestic	2	Substantial	1	3.1	12	37.5	1	3.1	14	43.8
wastewater	3	Mild	1	3.1	12	37.5	2	6.3	32	100
sewers		Tota	1 3	9.4	27	84.4	2	6.3	32	100
5. Wastewater	1	Serious			8	7.3			8	7.3
from	2	Substantial	1	0.9	19	18.7	1	0.9	21	19.6
production/bus		Mild	4	3.7	70	65.4	6	5.6	80	74.8
iness	4	No impact								
establishments		Tota	ıl 5	4.7	95	88.8	7	6.5	107	100
6. Wastewater	1	Serious			3	11.5			3	11.5
due to	2	Substantial	2	7.7	5	19.2			7	26.9
stagnation in	3	Mild	1	3.8	14	53.8	1	3.8	16	61.5
rivers/lakes		Tota	ıl							
7. Bad odors	1	Serious	1	3.0		24.2			9	27.3
from sewers	2	Substantial	3	9.1	11	33.3			14	42.4
nom sewers	3	Mild	1	3.0	8	24.2	1	3.0	10	30.3

Causes of	No	Impact level	Poor	group	Med income	ium- e group	Wea gro	•	Total	%
pollution	110.	Impact ic ver	Frequ	%	Frequ	%	Frequ	%	10141	70
			ency	70	ency	,,,	ency	70		
	4	No impact								
		Tota	1 5	15.2	27	81.8	1	3.0	33	100
	1	Serious	1	2.3	2	4.7	1	2.3	4	9.3
8. Bad odors	2	Substantial	2	4.7	9	20.9	1	2.3	12	27.9
from waste	3	Mild	3	7.0	22	51.2	2	4.7	27	62.9
		Tota	l 6	14.0	33	67.7	4	9.3	43	100

- 140. Results from in-depth interviews and observation also show:
 - Phu Hoa canal: Field surveys reveal serious pollution in the section of Phu Hoa canal, caused by domestic waste on the banks as well as in the canal bed due to indiscriminate dumping waste by residents in this area.
 - Upstream ditch of Bau Sen lake from the starting point in Ngo May ward flowing through Pham Ngu Lao Street to the final point of discharge into Bau Sen lake. The ditch is covered with concrete slabs with an average length of about 1.5m. Yet, the ditch still gives rise to bad odors. Additionally, the discharge of waste from husbandry activities of a number of HHs (directly into the canal) pollutes the surrounding environment even more, especially in summer. Local HHs around the upstream ditch are badly affected by bad odors.
 - Bach Dang Street: the construction of the sewer system and pumping stations was completed in Phase 1 of the Project, but the wastewater reaching the wastewater treatment stations are at present of low quality as tertiary sewers have not been constructed in a number of areas. Therefore, proposals for this phase will be made on building tertiary sewers in lanes/alleys where there are no sewers or the existing sewers have been dilapidated and intensifying connections to HHs along the two sides of the street.

↓ Common diseases contracted by local residents in the Sub-Project area

141. The shortage of clean water has resulted in flooding in many areas, aggravated by uncollected waste and the absence of sewer systems. Al these lead to outbreaks of diseases, threatening local residents' health. The most common diseases include diarrhea, colds, fever, etc. affecting hundreds of people every year. Women are mostly threatened by gynecological diseases. The main causes of such diseases and illnesses are parasites and insects which spread diseases via polluted water environment and infect humans through eating, drinking, and daily life activities. The following table shows the common diseases in the area as remarked by local residents:

Table 3.41: Common diseases by living conditions in the Project area

No.	No. Common diseases in the area		y group		income oup	Poor	group	Total	%
			%	Freq.	%	Freq.	%		
1	Flu	34	4.0	280	32.4	24	2.8	338	39.7
2	Headache	50	5.9	397	46.7	41	4.8	488	57.3

No.	Common diseases in the area	Wealth	y group		i-income oup	Poor	group	Total	%
		Freq.	%	Freq.	%	Freq.	%		
3	Diarrhea	1	0.1	20	2.4	3	0.4	24	2.8
4	Dysentery			7	0.8	1	0.1	8	0.9
5	Cholera			5	0.6	2	0.2	7	0.8
6	Itching/ allergy	6	0.7	133	15.6	25	2.9	164	19.3
7	Gynecological diseases	1	0.1	46	5.4	4	0.5	51	6.0
8	Diseases from worms	8	0.9	74	8.7	4	0.5	86	10.1
9	Hepatitis A			11	1.3	4	0.5	15	1.8
10	Stomachache	10	1.2	129	15.2	9	1.1	148	17.4
11	No idea	2	0.5	43	11.7	10	2.7	55	15.0

- 142. Of the common diseases caused by domestic unclean water and flooding, flu, headache and itching, allergic diseases are most suffered by local residents in the Sub-Project area with 29.7% for flu; 58.3% for headache; and 19.3% for itching, allergy. Both adults and children may contract such diseases. Besides, diseases from worms, stomach disorders, diarrhea, etc. are also contracted by many persons in the Sub-Project area.
- 143. In the frequently flooded areas of the Sub-Project area, the proportion of persons contracting diseases relating to water sources, especially allergic diseases, skin diseases, etc. is higher than that of the people in unflooded areas.
- 144. Surveyed HHs believed that these diseases were mostly caused by polluted water sources and flooding in the rainy season (69.3%), followed by 18 % of the HHs stating that such diseases are caused by unhygienic food; 5.3% blamed narrow or confined living space for pollution; and 7.4 % mentioned individual unhygienic habits as the cause. Therefore, investments in the construction items of the Project are what local residents are expecting.

♣ Propaganda on disease prevention

145. In the Project area, propaganda on preventing diseases and epidemics have been adequately performed by local authorities with information widely propagated to local communities through radio announcements, health workers at clinics, the Women's union, etc. Survey results show that 87.7% of the respondents affirmed that propaganda on preventing diseases have been carried out among local residents, specifically:

Table 3.42: Sources of information propagated to local residents

l No.	HH economy	Radi	o	Heal worke Wome Unio	ers, en's	Banno pictur sloga	res/	TV broadc		Meet	ings	Childre (informate from school	tion
	economy	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
1	Wealthy HHs	53	7.2	40	5.4	41	5.6	63	8.5	20	2.7	2	0.3
2	HHs with medium income	413	56	268	36.4	300	40.7	515	69.9	193	26.2	21	2.8
3	Poor HHs	39	5.3	32	4.3	29	3.9	61	8.3	16	2.2	7	0.9

No.	HH economy	Radi	lo	Heal worke Wome Unio	ers, en's	pictu	Banners/ pictures/ slogans		asts	Meet	tings	Childre (information school	tion
	cconomy	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
	Total	505	68.5	430	46.1	370	50.2	639	86.7	229	31.1	30	4.1

- 146. The implementation of the Sub-Project will affect the community's health with dust, noise, pollution and migrant workers during the construction stage. Therefore, it is necessary to raise the awareness of the community in the Sub-Project area of potential impacts and to propose, measures to prevent and minimize impacts on community's health. However, some impacts will be unavoidable during the construction of the works. Generated solid waste, dust, and noise can give rise to impacts on the health and safety of both workers and the community. In addition to impacts on the environment and community's health, the implementation of the Project will also be likely to spread infectious diseases.
- 147. The risks of spreading sex-transmitted diseases and HIV infection from the implementation of the Sub-Project might be the cause of impacts coming from: (i) the existing popularity and infection rate of diseases; (ii) poor awareness of the community on infection and preventive measures; and, (iii) the presence of laborers including expatriates and migrant workers. Consultation results in districts/communes of the Project area show that propagation on HIV infection has frequently been carried out among local residents by the healthcare clinics in coordination with the Department of Family Planning and Women's Unions of the wards/communes. Besides, distribution of free condoms has also been integrated in such propagation campaigns to ensure the effectiveness of communication activities on HIV/AIDS.
- 148. Therefore, in the near future, so as to protect local residents' health and to prevent possible spreading of diseases, the City's authorities should carry out effectively propaganda via the mass media, organize medical checkups among local residents on the one hand and work out measures to improve the surrounding environment to prevent diseases which might be caused by environmental pollution on the other.
- 3.2.11. Desire and ability to participate in the Sub-Project

♣ Prioritized proposals for improving HHs' infrastructure

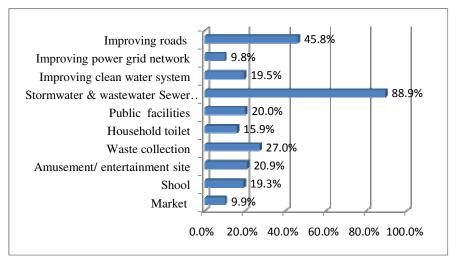
- 149. One of the basic principles of the Project is to enhance ownership local residents' mastership in all phases of the Sub-Project: preparation, implementation, management and operation of the Project. Therefore, in the preparation stage, the opinions from local residents will have a very important role to play, as they would tell what they expect in the development of the infrastructure. On that basis, the Project makes investments and improvements in conformity with local residents' expectations.
- 150. Survey results on prioritized investment items in the Sub-Project area are presented in the following table:

Impro ving Amusement/ Improving Stormwater & Improving Public Househol Waste School clean Market entertainmepower grid wastewater roads water toilet d toilet collection toilet nt site network Sewer system HH syste No. group m Frea Freq. % Freq. % % % % (%) Freq. (%) % Freq. Freq. Freq. % Freq. Freq. Freq. Wealthy HHs 0.9 14 16 33 39 8 0.9 11 1.3 234 27.5 21 2.5 5 0.6 19 20 2.4 HHs with medium 325 8.7 137 15.7 116 13.6 65 7.6 149 17.5 38.2 74 16.1 487 57.2 134 188 22.1 income 3 HHs 11 1.3 15 1.8 32 3.8 0.1 18 2.1 36 4.2 15 1.8 14 1.6 23 2.7 6 0.7 84 9.9 178 20.9 390 45.8 83 9.8 166 19.5 430 88.9 170 20 135 15.9 230 27.0 164 19.3 Total

Table 3.43: Prioritized proposals for improving the infrastructure in the Sub-Project area

151. Survey results show that the 2 investment items in the Sub-Project area enjoying most of community's consent are: (1) the construction and upgradation of the stormwater & wastewater sewer system (88.9%); and (2) improvement of the road system (45.8%). These are the leading priorities of a practical and essential nature in the Sub-Project area. As previously analyzed in the report, in the Sub-Project area many road sections in residential areas in Quy Nhon City are still lacking in sewer systems and are prone to frequent flooding, hence to environmental pollution and damaged city landscape.

Figure 3.4: Prioritized proposals to improve the infrastructure in the Sub-Project area



(Source: Socio-economic survey, February 2016, N = 851)

Local residents' readiness to participate in the Project

152. In any development project, the participation of the community in implementing the Project, maintaining and promoting its effectiveness is

- one of the most important factors contributing to Project success and ensuring Project sustainability.
- 153. Survey results show that of the total of 851 surveyed HHs responding to the question "Does your family support the implementation of the Sub-Project?",827 (accounting for 97.2%) voiced their support of the implementation of the Sub-Project in the locality. 96% of the respondents stated that they were ready to participate and contribute their opinions such as attending the meetings and discussing in groups in order to help materialize the Project. A high percentage of participants contributed their opinions on the project and there is no difference in the percentages between males and females: 96.3% and 95.5%, respectively.

Table 3.44: Percentage of HHs by gender ready to contribute opinions

	M	lales	Fei	males	Т	otal otal
Contributing opinions	Frequency	%	Frequency	%	Frequency	%
Yes	522	96.3	295	95.5	817	96
No	20	3.7	14	4.5	34	4
Total	542	100	309	851	2276	100

154. Survey results on the percentage of HHs' readiness to participate in supervising Project implementation show that 78.8% said they would always be ready and 19.3% stated they would consider the offer. Only 1.9% of the respondents said they would not participate in the supervision owing to shortage of free time. Consideration of the issue in terms of HHs' living conditions would reveal that in the Project area, the poor group made up a lower percentage of those who would e always be ready than the wealthy and medium-income groups, and the proportion of HHs that would need more consideration is higher than that of the wealthy group and the group with medium income.

Table 3.45: Percentage of HHs ready to participate in supervision by living conditions

Participati	nα	НН	s' living condit	ions	
in project supe	_	Wealthy	Of medium income	Poor	Total
A layaya maaday	No. of HHs	66	546	59	671
Always ready	%	83.5%	78.6%	76.6%	78.8%
Needing further	No. of HHs	11	136	17	164
consideration (if reasonable)	%	13.9%	19.6%	22.1%	19.3%
No	No. of HHs	2	13	1	16
INO	%	2.5%	1.9%	1.3%	1.9%
Total	No. of HHs	79	695	77	851
Total	%	100%	100%	100%	100%

(Source: Socio-economic survey, February 2016, N = 851)

155. Community consultation results in communes/wards of the Sub-Project also show that most of the HHs expressed their support of the implementation of the Project and hope the project would be implemented in the soonest possible time, hence avoiding "project delay". Surveys on potential contribution from HHs into the Project, many opinions

were recorded, including several different forms of contribution: cash; voluntary donation of land, yard, fence, eaves... depending on each HH's capability.

★ Expectations of receiving information from the Project

156. With the question on what information they would like to obtain from the Project, the majority of the respondents said that they wanted to know about detailed and specific activities of the Project (99.3%); 98.4% wished to know of the scope of impacts from the Project; and 94.4% wanted to know the duration of project implementation. There is no significant difference in the expectations between male and female respondents.

D (; ; (;	M	lales	Fen	nales	Total			
Participating in supervising	Frequency	%	Frequency	%	Frequency	%		
Activities	536	98.9	309	100	845	99.3		
Implementation plan	424	78.2	248	80.3	672	79		
Expenditures	418	77.1	246	79.6	664	78		
Implementation								
duration	508	93.7	295	95.5	803	94.4		
Scope of impacts	530	97.8	305	98.1	835	98.1		

Table 3.46: Percentage of HHs ready to participate in supervision in terms of gender

(Source: Socio-economic survey, February 2016, N = 851)

157. Form of receiving information: Survey results on the form of propagating project information show the majority of respondents selecting to receive project information through announcements in radio broadcasts and from local loudspeakers (accounting for 74.5%). Especially, there is no significant difference in the form of receiving project information among the groups of HHs.

Table 3.47: Form o	of receiving	information i	bv HHs' l	living standards
I word S. II. I OIIII o	' I C C C i V i i i S	injointanton e	Jy IIII i	avers brancacias

		НН	HHs' living standards					
Form of receiving	ing information	Wealthy	Of medium income	Poor	Total			
From radio	No. of HHs	62	519	53	634			
broadcasts and loudspeakers	%	78.5%	74.7%	68.8%	74.5%			
Leaflets	No. of HHs	8	74	7	89			
	%	10.1%	10.6%	9.1%	10.5%			
Mastings	No. of HHs	9	100	17	126			
Meetings	%	11.4%	14.4%	22.1%	14.8%			
Others	No. of HHs	0	2	0	2			
Others	%	0%	0.3%	0%	0.2%			
Total	No. of HHs	79	695	77	851			
Total	%	100%	100%	100%	100%			

(Source: Socio-economic survey, February 2016, N = 851)

158. Frequency of receiving information: 85.6% of the respondents wanted to obtain project information on monthly basis; 80.4% preferred a quarterly basis; and 12.8% chose a yearly basis.

3.3. Gender-related issues in the Sub-Project area

159. Gender issues in the Sub-Project area have been much improved since the issuance of the Law on Gender Equality. No more cases of serious domestic violence were recorded in the Project wards/communes. Women have participated more in solving family affairs as well as participating in social activities. There is no gender discrimination in education and healthcare services. To obtain analysis results on gender-related issues in the Sub-Project area, the Consultant has collected relevant comprehensive data from relevant officials of the wards/communes in the Project areas for analysis before making decisions and obtained qualitative and quantitative results to address gender-related issues in the Sub-Project area.

♣ Gender-related issues in families

- 160. Who in the family would make decisions on family important matters as well as possession of assets and participation in local community activities?
- 161. Survey results on task allocation in the family show that women are the main homemakers and the persons doing all the cleaning. In the Sub-Project area, gender equality is quite obvious when 93.2% of the respondents stated that both wife and husband make decisions on such matters as purchasing vehicles or houses; 97.2 % was joint decisions on bank loans and investments in business; especially, 81.7% of the respondents affirmed that both wife and husband jointly owned family assets. The data of the issue are as follows:

Table 3.48: Decision on major matters in families in terms of HH economy

No.	HH group	Woi	men	Me	n	Both won		T	otal
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
	Wealthy HHs	59	6.9	1	0.1	19	2.2	79	9.3
Homemaker	HHs with medium income	510	59.9	65	7.6	120	14.1	695	81.7
	Poor HHs	52	6.1	4	0.5	21	2.5	77	9.0
	Total	621	73.0	70	8.2	160	18.8	851	100
	Wealthy HHs	3	0.4	4	0.5	72	8.5	79	9.3
Making decisions on major	HHs with medium income	16	1.9	30	3.5	649	76.3	695	81.7
purchases	Poor HHs	3	0.4	2	0.2	72	8.5	77	9.0
	Total	22	2.6	36	4.2	793	93.2	851	100
	Wealthy HHs	8	0.9	5	0.6	49	5.8	62	7.3
Holder of asset ownership	HHs with medium income	4	0.5	6	0.7	40	4.7	50	5.9
Ownership	Poor HHs	67	7.9	66	7.8	606	71.2	739	86.8
	Total	79	9.3	77	9.0	695	81.7	851	100
Seeking	Wealthy HHs			2	0.2	77	9	79	9.3
bank loans	HHs with medium	13	1.5	7	0.8	675	79.3	695	81.7

No.	HH group	Woi	men	Men		Both women and men		Total	
	0 1	Freq.	%	Freq.	%	Freq.	%	Freq.	%
	income								
	Poor HHs	1	0.1	1	0.1	75	8.8	77	9
	Total	14	1.6	10	1.2	827	97.2	851	100

♣ Participation in community activities

162. Survey results show differences between men and women in the participation in local organizations and agencies. Specifically, 53.6% of females participated in local agencies and the organizations, while the percentage for men of was just 39.8%. More women than men participated in community activities. The survey results are shown in the table below:

	Tasks	Gender	Poo	or HHs	HHs with r		Wealthy	HHs	Tota	1
			Freq.	%	Freq.	%	Freq.	%	Freq.	%
	Participation –	Femal	29	58	271	51.6	41	67.2	341	53.6
1	in local organizations	Male	17	17	218	41.5	17	27.9	252	39.6
	& agencies	Both	4	8.0	36	6.9	3	4.9	43	6.8
2	activities: community meetings, of	Femal	30	56.6	275	52.1	40	66.7	345	53.8
		Male	16	30.2	215	40.7	17	28.3	248	38.7
	residential quarters	Both	7	13.2	38	7.2	3	5.0	48	7.5

Table 3.49: Participation in community activities

(Source: Socio-economic survey, February 2016, N = 851)

163. In general, gender equality has developed in the Sub-Project area in making decisions on important family matters. Women's role and status has been enhanced and appreciated more and more. However, women's participation in local community activities was limited in comparison with men.

- 164. Gender-related issues in political activities are assessed based on the basis of summary reports on civil servants, specialized and non specialized staff of the communes in the Project areas.
- 165. Statistical data collected from the communes/wards in the Sub-Project area and consultation results with the representatives of the local government in the Sub-Project areas show that women participation in political activities has presently been improved. However, these improvements in recent years are only a quantitative nature, and in reality women still have a lower political status than men in important and decisive positions, which limits females' participation in the process of making decisions and their chances to enjoy proper interests. This issue should be included in mass media

- propaganda in the gender action plan in order to promote the position/status of women in politics.
- 166. This limitation can be minimized if local women, especially females in AHs are given opportunities to participate in vocational programs, promotion and communication campaigns for enhancing the awareness of sanitation, traffic safety or prevention of social evils. Gender discrimination should be regarded as a risk and will be integrated in the gender action plan as shown in Appendix 2.

3.4. Ethnic minorities

- 167. On the basis of provided documents, screening of the Sub-project initially includes analysis of the project context, defining stakeholders and their participation., Screening would include announcements on project investments and other potential plans, preliminary field surveys in order to define the proposed locations for the Sub-Project and the scope and degree of impacts (for example, land acquisition, the need/necessity of the auxiliary works).
- 168. The Consultant has carried out meetings to discuss with the representatives of the PMU of Key Projects of Binh Dinh Province, the Committee for Site Clearance and Land Fund Development to collect information, preliminarily define the amounts of AHs, beneficiary HHs with attention paid to vulnerable groups such as poor HHs, female-headed HHs, and ethnic minority HHs. Screening results show that no ethnic minority HHs or no ethnic minority communities will be adversely affected by the implementation of the Sub-Project.

4. ASSESSMENT OF IMPACTS FROM THE SUB-PROJECT

4.2. Positive impacts

- 4.1.1. Improving traffic quality
- 169. It can be presently observed in the existing traffic status of Quy Nhon City that the landscape of the streets is far from being beautiful. A number of road sections in residential areas have been seriously downgraded and there are still a number of earthen road sections, badly affecting local residents' travel and limiting business activities from outskirt wards into the inner-city areas.
- 170. The Sub-Project Components for the construction of interceptors, wastewater & stormwater collection sewers, bridges, will be combined with other Components for stormwater drainage and traffic system rehabilitation to better traffic activities in the construction sites for Chu Y bridge and Huynh Tan Phat bridge.
- 171. Once the roads and bridges have been bettered, the prices of land will soar up owing traffic convenience and the residents' living standards and business conditions will be enhanced. The prices of land in the Sub-Project area with the construction of bridges and sewer systems will increase by 8 10 % once the Sub-Project has been implemented.
- 4.1.2. Minimizing losses due to flooding
- 172. Flooding takes place about 2-4 times/year, bringing about losses from damaged traffic means, houses and assets, and traffic infrastructure. With the implementation of the CCSEP Quy Nhon Sub-Project, indirect beneficiaries will be all the residents of Quy

Nhon City and those within the Sub-Project area will directly benefit from the Project, specifically:

- It is expected that after rehabilitating and improving the sewer system, flooding will be thoroughly solved in the area formerly prone to floods in inner-city areas. Direct beneficiaries will be residents in inner-city areas and Hoc Ba Bep area, and areas surrounding Bau Sen lake, Phu Hoa canal. About 90,000 persons (of 18,000 households) of 16 wards will have wastewater collected thanks direct connection into the city's main sewer system.
- About 23,000 persons in the wards of Nhon Binh, Dong Da, Tran Phu, Ly Thuong Kiet, and Ngo May will benefit directly from reduced flooding and from having wastewater collected and treated.
- 173. Stormwater sewers will not negatively affect the water environment. On the contrary, thanks to the Sub-Project areas most likely to be flooded areas at present will be improved. The stormwater drainage sewer system, once completed, will contribute to limiting flooding in a number of areas such as Hoc Ba Bep, Bach Dang Street, Tran Hung Dao Street, and Hung Vuong Street by increased drainage capacity. The Sub-Project will also help prevent flood water from the outskirts from overflowing into inner-city areas, minimizing environmental pollution.
- 4.1.3. Minimizing environmental pollution
- 174. The collection and treatment of domestic wastewater in the Sub-project area will minimize possible direct discharge of wastewater into natural water bodies such as canals, ditches, lakes, and lagoons, reducing substantially pollutants that might reach the rivers in the areas. Bad odors of gases coming from domestic waste and wastewater during decomposition of organic matter will be reduced and eliminated after treatment.
- 175. The volume of collected wastewater can be managed effectively thanks to a good system. The drainage of wastewater in close sewers will help prevent leakage and penetration which might pollute groundwater. Wastewater will be collected and led to treatment stations, and there is no more wastewater overflowing freely into the sea, rivers, and lakes.
- 176. Sludge and waste containing heavy metals, hazardous substances, concentrated organic substances and pathogenic bacteria will suspend then accumulate in lakes, lagoons, canals, drainage ditches, directly affecting the quality of surface water sources and possibly polluting groundwater. The collection and treatment of wastewater will help reduce bad odors from the upstream ditch of Bau Sen lake and decrease indiscriminate dumping of waste into the open canal of Phu Hoa. Additionally, the increased capacity of Nhon Binh and Bau Lac WWTPs as well as the construction of a new cell building in Long My Landfill will contribute to improving sanitation in the environment of Quy Nhon City.
- 4.1.4. Boosting local economic development, increasing income and improving locals' living standards
- 177. The CCSEP Quy Nhon Sub-Project will contribute to completing and developing the City's infrastructure and landscape, reducing flooding in inner-city areas, improving environmental sanitation and locals' health and the quality of living; promoting the development of the sectors of tourism, processing and services. Local residents will then

- have more jobs and their knowledge is raised, yielding more sustainable development of the social system.
- 178. After being completed and put into operation, the Sub-Project will affect positively and sustainably the economy of local residents in the following ways:
 - Reducing annual spending on health thanks to improved environment;
 - Reducing travel time thanks to less flooding and reducing time for health checkups;
 - Improving the tourist environment, creating favorable conditions for investment;
 - Contributing to reducing the proportion of poor HHs thanks to reducing the abovementioned spending;
 - Improving local economy thanks to roads and bridges, creating favorable conditions for travel and business and providing opportunities for investment.

4.1.5. Positive impacts on public health and society

- 179. Locals' living conditions and living environment in the beneficiary areas are remarkably improved with reduced infectious diseases and improved local residents' health.
- 180. According to survey results, about 3%-5% of HHs' monthly spending would go to health care. Up to 65% of such spending is for treating diseases relating to the environment such as dengue fever, diarrhea, food poisoning, skin diseases, etc. These diseases and illnesses are expected to be cut down to 50% once the Sub-Project is implemented.

4.3. Negative impacts

4.3.1. Land acquisition and resettlement

181. The total land area to be permanently acquired would be 196,937 m², including 172,67 m² residential land, 100.43 m³ garden land and 196,937 m² forestry land. The total number of affected households would be 7 HHs equating with 41 PAPs, of which one HH (with four families) in the proposed construction site of Y-bridge will have their residential land and garden land impacted, only to dismantle their entire houses to be relocated and resettled and 6 others living in the proposed expansion area of Long My Landfill Site will only have their forestry land impacted, but they are to be severely affected and one of whom to be of vulnerable group

Table 4.1: Scope and level of impacts from land acquisition for the Project

No.	Item	Location	Area (m²)	Type of land	Existing works
1	Long My Landfill expansion	Phuoc My commune	196.937	Forestry land	-
2	Chu Y bridge	Dong Da ward	273.10	Residential land and Garden land	House and Other strucutres

- 182. The implementation of the Sub-Project will affect 01 HHs, which will be relocated owing to the land acquisition for the construction of Chu Y bridge bridges. According to survey results, the HHs to be relocated are Kinh HHs that have long resided in the locality. The Sub-Project has formulated the Resettlement Action Plan with satisfactory compensation policies in order to minimize the impacts from land acquisition.
- 183. To minimize the impacts from land acquisition, in the process of detail planning, the Design Consultant is to consult the local community in order to work out measures to minimize land acquisition and mitigate other negative impacts caused by land acquisition to local residents. Besides, a Resettlement Action Plan of the Sub-project has been prepared to ensure satisfactory compensation for all losses incurred by APs.
- 4.3.2. Impacts on local residents' living environment during construction
- 184. Demolition and leveling work will be carried out during the construction of Chu Y bridge and Huynh Tan Phat bridge. This will generate dust and noise during site clearance, affecting HHs of Bac Ha Thanh residential area, Nam Ha Thanh residential area, and Key 1A residential adjacent to the construction sites of the two bridges.
- 185. Excavation, backfilling and ground leveling operations will be performed in the sites for Long My Landfill expansion, Nhon Binh WWTP, canals and sewer pipelines, on Tran Hung Dao Street, Hung Vuong Street, Bach Dang Street, the upstream ditch of Bau Sen lake, Phu Hoa canal, and the area of Tran Quang Dieu ward. These operations will generate dust and noise, affecting HHs along the roads of the construction sites, close to the waste dumping area, the WWTP and tertiary sewer pipelines. Dust pollution will only be over once excavation and backfilling of the road bases have been completed.
- 186. During the operation of WWTP, impacts will take place from bad odors from toxic gases as H₂S, NH₃, CH₄, and unpleasant smell generated by the decomposition of microorganisms, especially the organic substances, during waste treatment processes . In anaerobic wastewater treatment tanks, relatively large amounts of BOD gas can give rise to malodor and toxic gases, directly affecting workers and especially residential areas nearby. However, the use of the technology of treating and depositing anaerobic sludge in combination with adjusting the distance between the WWTP with the residential area, at a minimum of 200m, will meet the permissible standards on the safe distance for a WWTP in Thanh Long hamlet. Additionally, the establishment of a buffer zone of green trees around the plant will help prevent bad odors and toxic gases from dispersing into the surrounding.
- 4.3.3. Impacts on local residents' livelihood and business from construction operations
- 187. Land acquisition and construction operations in residential areas will definitely affect the livelihood and business of local residents in the sites for construction. According to the survey results, a number of HHs living along National Highway No. 1A, Xuan Thuy Street, Hung Vuong Street, Tran Hung Dao Street and Bach Dang Street are running small businesses or trading in food & drink services. Dust pollution will affect these business and service operations as customers would prefer cleaner eating and drinking places to dirty places with heavy dust, leading to reduced numbers of customers. However, to minimize minimizing the negative impacts, the Investor will coordinate with the local government in assessing the level of impacts in order to make reasonable compensation. In addition, during construction, the contractors are to plan and perform construction operations in such a way to minimize negative impacts on these HHs. The authorities of the wards/communes are to carry out satisfactory compensation and

- assistance in line with the policies stated in the RAP, with a view at avoiding negative impacts on HHs' livelihood and business.
- 188. The results of consultation with local residents in the Sub-Project area show that the local residents are much concerned about the transportation of soil and other building materials which may cause causing the environmental pollution. Local residents also worry much about migrant workers who will arrive and live in the area, affecting the quiet rural environment and possibly giving rise to security issues such as thieving and robbery.
- 4.3.4. Impacts on the existing infrastructure in the Sub-Project area

Impacts on traffic infrastructure

189. During the construction of stormwater and wastewater sewer pipelines, sections of Phu Hoa canal, the upstream ditch of Bau Sen lake, excavation, gathering and transportation of materials and construction waste will affect mostly a section of National Highway No. 1A, Xuan Thuy Street, Hung Vuong Street, Tran Hung Dao Street and Bach Dang Street.

Impacts on drainage infrastructure

190. The existing drainage pipelines run mainly along the technical corridors of the roads. The construction of sewer systems of the Sub-Project, to be performed in the middle of the roads, will not affect the drainage infrastructure in the area. Additionally, as the Investor of the Sub-Project is also the managing unit of the drainage system in the area, impacts on the existing drainage infrastructure can be avoided.

Impacts on power supply infrastructure

- 191. At present, dozens of kilometers of power cables of the national power grid have been bundled and placed underground in the residential areas, urban areas and sections of key roads of Quy Nhon City. The Investor will closely cooperate with the power managing unit in the area in order not to affect these underground cable lines. Risks relating to power safety and power supply can be avoided through proper construction measures.
- 4.3.5. Risks to health, labor safety and traffic safety

Health

192. The construction of Sub-Project items will create negative impacts on the environment from dust, noise, etc. Besides, it may also give rise to diseases owing to new people arriving from other localities. In addition to the impacts on the community's health during construction, there are also risks of spreading infectious diseases. Risks of sex transmitted diseases and HIV may be present with the implementation of the Project owing to the following: (i) the existing rate and popularity of infection; (ii) the community's knowledge on infection and prevention; and (iii) the presence of expatriate and migrant workers.

Labor accidents

193. Accidents may occur during construction operations and the transportation of building materials due to mistakes or negligence, the lack of labor safety gear, the lack of awareness of complying with regulations on labor safety, or workers' poor health on site. These will cause serious impacts on humans and assets.

Traffic accidents

- 194. The Sub-Project will carry out the construction of box culverts on the streets of Hung Vuong, Tran Hung Dao and Bach Dang with successive measures in one side of roads with the other for traffic use. Therefore, excavation, backfilling, and installing pipes will make use of parts of existing roadbeds, hindering traffic and presenting potential risks of traffic accidents. Excavation and backfilling operations will also cause spilling of soil and mud over the roads, which during rains -- would be likely to cause traffic accidents on the slippery roads. In addition, mud and soil spilling out onto the road surfaces may generate dust, reducing road users' visibility.
- 195. The construction and installation of wastewater collection pipelines along existing routes and in Tran Quang Dieu ward will obstruct the traffic, increasing the risks of traffic accidents and limiting road users' travel. Yet, this level of impacts is regarded as low.
- 196. The roads most affected by the Sub-Project are expected to be the road on the upstream ditch of Bau Sen lake, Hung Vuong Street, Tran Hung Dao Street, the section from Bach Dang Doan Thi Diem junction to Pham Hong Thai Bach Dang intersection.
- 197. Therefore, the Investor and the unit responsible for construction operations are to prepare management plans for human resources (workers) to minimize negative impacts on the community. On their part, local government authorities are to devise communication plans to provide the public with information and minimum understanding on social problems that may arise as well as disease patterns to assist local residents in protecting themselves against external risks.
- 4.3.6. Impacts on security & order and social safety
- 198. It is estimated that about 300 workers will be mobilized for the construction of the Subproject items. These 300 workers will not be gathered in one site but will be distributed to all the items of the Project. However, this large number of workers present in the area during the construction of the items will cause definite unwanted changes to the local economic, social and cultural setting. The workers' presence together with their activities will have substantial impacts on local people in the following aspects: (i) problems with security and order in the project area; (ii) cultural conflicts between workers and local residents; (ivi) arising social evils such as gambling, drinking, drug use; (v) potential risks of overloading in healthcare services, public services, catering services, etc.
- 199. Poor management of the workers will be likely to lead to negative problems, as seen in previous similar projects. Any conflict between workers and local residents without being satisfactorily resolved -- may lead to fighting, resulting in casualties and even human lives. On the other hand, local residents are very concerned about public security and order or social evils that may arise before the local government could work out preventive measures.

5. MITIGATION MEASURES AND INTERVNETIONS

200. In general, the Sub-Project will bring about positive impacts to the environment, economy and society, cut down negative impacts on the environment and improve drainage for overcoming flooding in some areas such as Hoc Ba Bep, Bach Dang Street, Tran Hung Dao Street, and Hung Vuong Street. The Sub-Project will also help facilitate traffic in the area of Chu Y bridge and Huynh Tan Phat bridge, reduce bad odors from

- sewers and the upstream ditch of Bau Sen lake, and avoid direct dumping of waste into Phu Hoa open canal. Besides, the increased capacity of Nhon Binh and Bau Lac WWTPs as well as the construction of a new cell at Long My Landfill will contribute to improving localized environmental sanitation in Ouy Nhon City.
- 201. The impacts and risks in the pre-construction period include land acquisition and resettlement, loss of the vegetation cover due to site clearance – especially in the construction sites for "improving the capacity of Nhon Binh and Bau Lac WWTPs, building Chu Y bridge and Huynh Tan Phat bridge, and building a new cell at Long My Landfill". Other risks during site land clearance includes unexploded bombs and mines, disruption of power and water supplies, etc..
- 202. Most potential risks and impacts during construction are related to the construction sites for "improving the capacity of Nhon Binh and Bau Lac WWTPs, building Chu Y bridge and Huynh Tan Phat bridge, and building a new cell at Long My Landfill". These impacts and risks may lead to permanent changes in the landscape in the area for the construction of the Project, to the generation of waste, to problems concerning workers' health and labor safety.
- 203. The negative impacts from the Sub-project can be overcome and mitigated with the following:

5.1. Consultation with stakeholders

- 204. In order to minimize the risks relating to potential negative impacts and to establish channels of communication, opinions have been multiply raised from the local community during the preparation stage of the Project. As this is a project with foreign loans, the existence of many compensation levels in a same area and the existence of inconsistent compensation policies will give rise complaints. Therefore, the provincial authorities will formulate proper documents detailing statistic tasks, payment, and replacement costs of the Project based on the resettlement policy framework approved by the Prime Minister. The PMU will coordinate with the local government in propagating in the public community the Project objectives and policies.
- 205. During survey, the consultant and people's committee of communes/ wards of the subproject had hold 16 community consultation meetings in different scale (at level of leaders, community and affected households). The local community has been provided with information about the subproject during consultation meetings as follows:

District/ Commune/ ward Date **Contents of consultation** city Nhơn Bình 22/2/2016 - Distribute information about the project Nhon Phú 22/2/2016 - Intriduce objectives of community Đống Đa

Trần Quang Diêu

Hải Cảng

Quang Trung

Table 5.1: Date and content of consultation meetings

23/2/2016

23/2/2016

24/2/2016

24/2/2016

consultation

willingness

- Present the most feasible technical

options of the subproject

- Learn about community's

Quy Nhon

city

District/ city	Commune/ ward	Date	Contents of consultation
	Thị Nại	25/2/2016	
	Lê Hồng Phong	25/2/2016	
	Trần Hưng Đạo	26/2/2016	
	Ngô Mây	26/2/2016	
	Lý Thường Kiệt	27/2/2016	
	Lê Lợi	29/2/2016	
	Trần Phú	29/2/2016	
	Nguyễn Văn Cừ	1/3/2016	
	Ghềnh Ráng	1/3/2016	
	Phước Mỹ	2/3/2016	

206. The consultation showed that both men and women were active in participation and giving their ideas about implementation of subproject's components. The specific results are summarized in the following table:

Table 5.2: Results of consultation meeting in the Subproject area

No.	Component	Community's opinion
I	Hợp phần 1	
		Currently, Phu Hoa channel is seriously polluted with sediment of soil, sand and solid waste. This causes serious impac on people's daily life.
1	Phu Hoa channel	The local people share common consensus on implementation of the subproject to address the situation of stagnation of domestic waste which causes flow congestion. This status becomes worse in rainy season and seriously affects the people's living condition and urban environment.
2	Upstream channel of Bau Sen lake	People also share common consensus on improvement of the existing drainage and sewerage. With the existing system, all kinds of wastewater and solid waste are directly discharged to one sewer line causing congestion. The pollution is more serious in dry season with odors. In rainny season, flood flows from the channel to the lake and lasts even 1.5 days.
3	Tran Hung Dao street	People share common consensus on improvement of the drainage system for this street because this street faces flood frequently.

No.	Component	Community's opinion
		It is proposed that the project should be soon implemented to address flooding situation.
4	Bach Dang street	This sewer line is seriously downgraded and has no drainage ability. It is proposed to replace the existing line by the bigger one and connect to the primary and secondary system which have been constructed by the phase 1 of the project.
5	Nhon Binh WWTP	Odor generated from the plant cause impact on surrounding resident area. This problem has been reflected by the people to the people's commity of Nhon Binh ward and Quy Nhon city. It is requested by local people that this problem must be strictly solved before construction of another treatment unit.
6	Bau Lac WWTP	Currently, Bau Lac WWTP is facing with operation difficulty due to leakage of leachate of Long my landfill. It is wished that the project will be soon implemented to improve the leachate treatment system and facilitate Bau Lac WWTP's operation.
7	Expansion of Long My landfill	People shares the common consensus on the subproject and wish that the project will be soon implemented to satisfy city's requirements on waste treatment and improvement of environment.
8	Construction of school toilets	People support for construction of toilets for the remaining primary and secondary schools of Quy Nhon city. This will help to improve sanitary condition and prevent diseases for students.
II	Component 2	
10	Construction of Chu Y Bridge	The access road to Chu Y bridge has been completed as master planning of the city. The current load capacity and

No.	Component	Community's opinion
		width of Chu Y bridge can not meet traveling
		requirements. The construction of Chu Y bridge
		connecting to Thap Doi street and Huynh Tan Phat street
		deems very urgent and responses with people's
		willingnees. The local people support construction of Chu
		Y bridge as long as it ensure a proper compensation for
		their lost land.
		People need to be informed about construction plan of the subproject because this street serves a relatively high traffic density.
		The Huynh Tan Phat brdige will connect resident block B
11	Construction of Huynh Tan Phat Bridge	(island 1 nothern Ha Thanh River) and Quy Nhon resident area and facilite people's travel from the resident area to the city inner.
		People share the common consensus of implementation of the project.

5.2. Policies

207. The policies are to be correctly implemented, namely documents promulgating regulations on compensation, assistance and resettlement. These are laws and regulations issued by the Vietnamese government and documents issued by local government authorities in applying the Government decrees. Besides, the resettlement policies must also comply with the regulations of the World Bank in order to minimize potential negative impacts on local residents, with proper attention to be paid to gender-related issues and to vulnerable groups. At the same time, the policies also provide for the propagation of information to APs, the monitoring and assessment of compensation and resettlement.

5.3. Examination of the policy framework

- 208. Examination should be carried out for pinpointing basic differences between the policies related to social affairs & resettlement by the Vietnamese government and the involuntary resettlement policy (OP4.12) of the WB in order to introduce a suitable and specific solution, especially compensation prices. The following measures should be taken:
 - Surveys on replacement cost must be carried out to create a basis for calculating replacement cost for all impacts on land, crops, aquaproducts, assets, and

- construction works on the land affected by the Project. An independent consultant specialized in price appraisal will be employed to carry out surveys on replacement cost for land and assets on land impacted by the Project.
- The People's Committee and the Committee of Compensation at district level are to ensure that the estimated compensation payments to AHs are replacement costs (for land and construction works on land) and the market prices (for crops and domestic animals). Surveys on replacement cost will be carried out with the participation of stakeholders.
- 209. Assistance to affected business HHs and seriously AHs: all business HHs are entitled to assistance, whether their business has been registered or not. APs losing from 20% or more (10% or more for poor AHs and vulnerable HHs) of the total area of their producing land will receive "land-for-land" compensation or cash compensation at replacement cost depending on the AHs' request and the availability of land in the public land fund of the local government. The assistance for income recovery will be granted when "land for land" compensation is not applicable. Support should be combined with suitable assistance for agricultural promotion to help poor farming HHs improve their production capacity.

5.4. Formulating the resettlement plan

210. Despite efforts in minimizing land acquisition and resettling local residents, these tasks could not be avoided for the implementation of the Sub-Project. As requested by the World Bank, the Project will set up the resettlement plan for this Sub-project. This plan reflects the way that the Project will minimize APs' losses due to the Project, restore their livelihood with compensation, assistance or subsidies. The general objective of the resettlement action plan is to ensure that all APs will be compensated at replacement cost for their losses and present measures to assist APs restore their livelihoods – at least to the pre-project level.

5.5. Setting up and implementing effectively the plan for public health management

211. This is aimed at managing most effectively negative impacts and risks affecting the community's health during the implementation of the Sub-Project, actively preventing diseases arising in the project implementation, at the same time responding promptly and effectively to arising diseases, promoting mass media propaganda, education and training among local residents and the local government on potential risks of diseases arising in the implementation of the Sub-Project.

5.6. Setting up and implementing effectively communication, consultation and participation plans

212. Access to information in conformity with the interests of the local residents in the Project area is to be intensified. Local residents are notified and updated with plans of Project construction so that they could proactively prepare their own plans for production and living.

5.7. Development and Implementation of Gender Action Plan (GAP)

213. Gender Action Plan (GAP) is necessary to facilitate participation of women in construction of the project, providinggood opportunities for women to increase their income, avoiding increase of women's living burden increase, and contributing to promotion of women role and status in the project area

5.8. Information Disclosure, Community Responsibility and Supervision

214. In order to ensure participation of project impacted community and households, project information disclosure to the local government, relevant organizations on the project, technical solutions, estimation ofimpacts in terms of land, income and assets on the land... have been selected. Plan on information disclosure to the public is one of contributions to promoting project preparation and implementation schedule, and when the project is put into operation, it also receives agreement of the community, local government, PMU. These shall minimize posibility of conflict arising and other risks, and increase effectiveness of project investment and social significance.

6. ROLES OF PROJECT STAKEHOLDERS

6.1. Overview of Stakeholders

- 215. Lien Agency shall be Binh Dinh Provincial People's Committee.. Key Projects Management Unit of Binh Dinh Provinceshall be representative of the Line Agency, responsible for project preparation, implementation and management
- 216. Agencies involving Subproject implementation shall be the provincial departments, branches, agencies, people's committee of local districts, communes, wards in the project areas, Consultants...

217.

218. During operation stage, facilities formed under the project shall be handed over to and managed by People's Committee of communes/wards.

6.2. Roles of Stakeholders

6.2.1. Roles of management agencies

- 219. Binh Dinh Provincial People's Committee shall take a role as the Employer of Quy Nhon city sub-project, and authorize its Employer to Key Projects Management Unit of Binh Dinh Province. Binh Dinh PPC sets up the project plan, submits and reports to the relevant branches, departments and Donor; it also cooperates with Ministry of Finance and the State Bank of Vietnam for proposal to the Prime Minister for approval to sign international convenants in terms of ODA and preferential loans for the project; PPC cooperates with MPI in terms of ODA non-refunding aid, negotiation of on-lending agreement with Ministry of Finance; instruct the Employer to implement the signed convenants, roles of the state management of ODA and preferential loan for the project, approval of project documents authorized by the Prime Minister; organization of proceeding land acquisition, compensation, siteclearance for the Sub-project in compliance with approved resettlement policy framework; arrangement of state budget for loan repayment.
- 220. DPI is an agency supervising the Sub-project and plays a role of cooperation with the relevant departments in supporting the PPC on performance of financial plan, , preparation of annual financial plan and guidance on PMU in respect of the funding procedure; supporting PMU on procedure and process of assessing technical reports, investment components, bidding documents and bid valuation. It cooperates with other relevant departments, to advise PPC on assessment, approval of the Sub-project and supports PMU on resolving problems arising in the course of project implementation.
- 221. DOF: cooperates with DPI to finance the annual funds for the project according to the provincial state budget; sopporting PMU to set up financial plan and evaluatefinancial cost, management activities of PMU, for submission to PPC's approval; assessing compensation price, resettlement policy impelementation and income recovery in compliance with current regulations and policies of the World Bank. It also support PMU to resolve problems arising in the course of project implementation.

- 222. DONRE: guides PMU on legal process and procedures of evaluating and approving EIA documents; cooperates with otherrelevant departments to evaluate compensation plan for resettlement, site clearance, land acquisition for the project; guides PMU on management and supervision of environment in the process of project implementation.
- 223. The provincial state treasury: supports PMU in terms of the legal procedures in the process of disbursement and allocation of funds for the Sub-project.
- 224. Compensation and Site Clearance Committee: is an entity having rights to decide on regulations and policies in compensation and resettlement to the extent of the project, site handing-over to Contractor as scheduled; cooperates with PMU to implement resettlement and land clearance activities, ensuring project implementation schedule and social safeguard policy of the Donor.
- 225. People's Committee of the city, districts, communes: cooperate with PMU in activities of information disclosure of the Subproject local residents, initiate activities of compensation, siteclearance; cooperates with the Contractor under the project; cooperate with PMU, independently supervision consultant in the process of supervising activities of Contractors and implementation of works on site. Commune People's Committee is also a place where feedback from local residents aboutnegative impacts onthe local residents because of the Sub-project is collected. Role of commune peoples' committee is very important and indispensible in many activities of both project preparation and implementation

6.2.2. Roles of organizations and communities

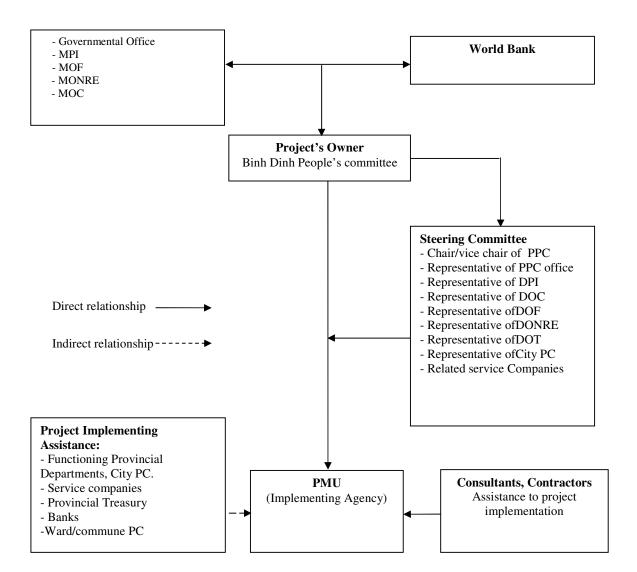
- 226. The social organizations, unions, community organizations and persons benefiting from works of the Sub-project will have animportant role in the process of Subproject implementation
 - Political, socio-economic organizations: Fatherland Front, Women's Union, Farmer Union, Youth Union, Elderly Union ... are those having the highest number of members and structure in hamlets/villages. The social organizations are supervisors monitoring the most tightly the process of Subproject implementation, especially in land acquision, compensation for resettlement, in order to ensure suitability with the social policy of the world bank and the current laws and regulations of Vietnam. The social organizations, unions of community are entities that receive complaints and feedback of local residents relating to the activities of the Sub-project during preparation, implementation and operation. Supervision by social organizations and unions in cooperation with residents shall provide a significance in helping PMU, contractor timely to adjust designed solutions, activities of implementation in order to mitigate negative impacts to people life in the affected areas
 - Political, socio-economic organizations: Fatherland front, Women's Union, Farmer Union, Youth Union, Elderly Union ... are those having the highest number of members and structure in hamlets/villages. The social organizations are supervisors monitoring the most tightly the process of Subproject implementation, especially in land acquision, compensation for resettlement, in order to ensure suitability with the social policy of the world bank and the current laws and regulations of Vietnam. The social organizations, unions of community are entities that receive complaints and feedback of local residents relating to the activities of the Sub-project during preparation, implementation and operation. Supervision by social organizations and

- unions in cooperation with residents shall provide a significance in helping PMU, contractor timely to adjust designed solutions, activities of implementation in order to mitigate negative impacts to people life in the affected areas
- Population group/hamlet/village: is level working directly with local resident, reflecting problems arising in preparation, implementation and operation of the project. The population group, hamlet, village is the lowest level, which deploysactivities of providing the information of the Sub-project to local resident and also firstly receivesfeedback from local residents related the project. Role of members of population group, hamlet, village isvery important, carrying the objectiveness and refecting timely proper expectation, recommendations of local residents in monitoring Subproject implementation, in order to minizie negative impacts of the Sub-project on residents' life. Besides, opinions of members from population group, hamlet, village also help to developing a to developing the Sub-project suitable, bringing the socioeconomic effectiveness to the community of the local residents in the project directly benefited areas.

6.3. Working Mechanism between Management Agencies

- 227. Working mechanism, relationship in projectprocess of implementation and management shall compky with laws, regulations and requirements of the Donor.. The mechanism and relationship between/among institutions will be commonly applied for the Subproject as below:
 - Binh Dinh PPC shall be the project key managing agency. The Employer shall be Key Projects Management Unit of Binh Dinh Province. Relevant provincial departments, branches, agencies shall cooperate to implement the project. PPC shall take responsibility to instruct the Employer, local relevant departments, branches, agencies in relation to implementation of compensation, resettlement, land acquisition, environmental action plan of the Sub-project in compliance with regulations of Vietnam and Donor. PMU will propose PPC of Binh Dinh province to resolve the problem arsing in the process of project implementation;
 - Structure of organization, management and implementation of the Sub-project complied with regulations under Decree No. 38/2013/NĐ-CP dated 23/April/2013 by Government on managing the usage of ODA fund and the currentregulations on managing investment construction of the Government.

Table 6.1: Model of organization and management



6.4. Cooperation among the relevant sides

- 228. During Subproject preparation and implementation, involvement of relevant stakeholders shall be important. First of all, giving comments, opinions of designing work items contributesan importance to modify designs, satisfaction of technical requirements and increase of socio-economic effectiveness as well as investment effectiveness, minimizing negative impacts by construction works on local residents' living in the community, especially social and environmental impacts in the process of implementation and operation of the construction works. Poor cooperation between/among the relevant sides will be the potential waste of human resources, possibly delaying project implementation schedule, negatively affecting the society and environment as well as investment effectiveness ...In the process of project implementation, a good cooperation among/between relevant sides shall ensure the Subproject implementation be in schedule
- 229. One of criteria of the success of the Sub-project is to ensure that the relevant sides will be participated in all phases of the project. This target requires participation plan. Roles and responsibilities of the relevant sides are assigned as below:

Table 6.2: Relevant sides' roles during projectpreparation and implementation

Phase	Project	Project	*
Institution	Project Preparation	Implementation	Management, operation, maintenance
Community			
Community	Participating in the construction of the Sub-project (discuss and agree on the selections of technical designs suitable for proposed works in ward/commune)	Participating in supervision through the representative of community	management
Local government of ward	Cooperating with Key Projects Management Unit of Binh Dinh Province in implementation of tasks suitable with functions according to the proposal of Key Projects Management Unit of Binh Dinh Province.	Participating in supervision	Arranging to manage some items to be implemented in wardareas
PPC of Binh Dinh province	Through the provincial DPI/Key Projects Management Unit of Binh Dinh Province, supporting and coordinating for the project implementation; Approving FS report, basic design, Total investment;	Through the provincial DPI, PMU of ODA capital of province coordinating and supporting the project implementation; Approving bidding documents and the evaluation results of Contractor selection	
Committee of ethnic minorities and mountainous areas; Women's union	Cooperating with Consultant to survey potential impacts in order to work out adequate measures for specific groups.	Based on the proposed budget allocating for each action plan, supporting the unit to launch approvedactivities.	Participating in community organizations to manage, maintain of sections of roads/works of the project
- DPI	Appraising	Cooperate with the	Cooperate with the relevant

Phase Institution	Project Preparation	Project Implementation	Management, operation, maintenance
	Supervising	relevant sides to supervise EIA implementation	sides to supervise EIA implementation
- DOC	Appraising FS, Basic Design, total investment, cost estimate		
- DONRE	Appraising EIA, Resettlement		
- DOF.	Appraising price units, cost estimate		
Provincial State treasury	Withdrawing finance		
Consultants	Prepare project's documents, cost vestment	Construction supervision	
Contractors		Construction	

6.5. Needs of Training, Capacity Building for Relevant Stakeholders

- 230. Although Key Projects Management Unit of Binh Dinh Provincehas experiences in managing implementation of ODA Subproject, but nearly a half of staff are currently taking official positions and do not have many experiences in project management. Therefore, the needs of education, training and capacity improvement has beendefined, focusing on directly responsible group of tasks, excluding some membersfromrelevant local departments, branches of the province.
- 231. Identified contents of capacity building shall consist of: education, professional training, specialized training for the members of PMU, specialists of relevant departments, branches relating to the management of the project, procurement, supervision of implementation, management of operation of the Works.
- 232. Besides, the project also carries out the IEC to community in order to raise up awareness of environmental protection for local residents in project area; Supports the institutional reform in sector in order to promote the effectiveness of operation process and ensure the project sustainability, at the same time sharesexperiences with other localities in the management of ODA project in sector of drainage, environmental sanitation.

7. CONCLUSIONS AND RECOMMENDATIONS

7.1. Conclusions

- 233. CCSEP -Quy Nhon city sub-project will upgrade and complete the infrastructure, improve conditions of the environmental sanitation in Quy Nhon city in compliance with the sustainable development criteria on the basisof synchronous development and community participation. Implementation of the Sub-project will not only provide positive impacts to the environment, but also significance in the socio-economic aspects, managerial capacity as well as awareness of the community in the environmental protection and infrastructure improvement.
 - For the society: Local residents have the stable life in the environment without flooding as infrastructure of the city is synchoronously invested and constructed, minimizing flooding problem.
 - For the economy: The Sub-project will create driving force for sustainable economic development, more jobs and stable income increase for labourers.
 - For the environment: situation of flooding, environmental pollution will be minimized in the city through constructed sewers, WWTP formed underthe Subproject. The environmental condition will be significantly increased, facilitating criteria on green-clean-niceenvironment after the Sub-project is invested and put into operation.
- 234. However, in the process of project implementation, as estimated, there will be negative impacts to the social security. These impacts may come mainly from the process of project site clearance and impelmentation:
 - Process of land clearance: most significant impacts may cause disorder of the life of local residents because of relocation, , resettlement and land acquisition. Theses impacts are rather significant, costly for process of relocation, resettlement, living stability of local residents. Currently, the city still has land fund for resettlement so these impacts will be minimized and overcome. There is no negative impact on the cultural works, historical relics, natural habitats, eco-system.
 - Process of implementation: impacts on the environment is mainly due to temporary land acquisition and public security, social order. These impacts are temporary in the process of implementation of the works and can be minimized by complying with the procedure of construction and the social management.
- 235. During WB's pre-appraisal, a resettlement policy framework (RPF) prepared by the Employer will orient all activities of land acquisition and is abasis to prepare aproject resettlement action plan (RAP) before implementation of the project. During the project preparatory phase, , there is, as-a-must,the independently supervising organizations/individuals monitoring implementation of resettlement plan. These reports can satisfy completely requirements of the Government of Vietnam and World Bank in the policies of compensation and resettlement support. At the same time, it is also documentary to show good performance of the Employer in terms of projectsocial safeguard implementation

7.2. Recommendations

- 236. It shall be necessary to ensure targets in specified in OP 4.12 for involuntarily resettlement of World Bank, that: "livelihood and income sources of affected people must be restored at least equal level or better before existance of the project" with preparation of RAP, income recovery program suitable with actual needs of each group of affected subjects.
- 237. Recommendation of the project must be applied contents relating to the social safeguard mentioned below in the process of preparation, implementation and operation of the project:
 - Gender Action plan (Appendix 2);
 - Community Health Action Plan (Appendix 3);
 - IEC Plan, public Consultation plan, public participation plan (Appendix 4);
 - Mechanism for complaint and complaint monitoring (Appendix 5); and
 - Information disclose, responsibility for the public reporting and monitoring (Appendix 6).

APPENDIX

APPENDIX 1 – SOCIO-ECONOMIC SURVEY QUESTIONAIRES

QUESTIONNAIRE FOR SOCIO-ECONOMIC SURVEY AND HOUSEHOLD WASTEWATER CONNECTION

1.	Respond NERAL INFORMATION AF How many households live in 1 One household How many people live and ea	BOUT I n your I 2 Two ho	HOUSEHO house? ouseholds			e than two	households	-
3.	Could you please tell some respondent in the box in the No.			e hous	ehold m	embers?	Circle th	e
NO.	Members	Gen der	Relations hip with the household head	Age	Educa tion backg round	Occupa tion	Ethnic group	Reside nce
1.	Household head		1					
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
Grandpo Educati yet (Gra (Grades Leave b	aship with the household head: 1. Ho arent 6. Other: on background code: 1. Illi ides 1-5). 3. Completed prima 4. Completed second	usehold h teracy. ry educat lary educc	ation (Grades 6- ge.		2. Not con 5. Comple 6. Higher achers,) 7. Other, sp	npleted primo eted high scho education. 7 6. Employe	ool education No answer.	
	3. Business/services 4. Farmers (including fisher/s	salter).				people withou	•	

	5. Housewife.	ill pe	ople)
Folk mus	sic 1. Kinh 2. Champa 3. Ragle		
	6. Chinese 7.Chu Ru		10. Other ethnic minorities
	e: 1. Live and have permanent residence in	n commune $(KT1)$; 2. Live in ward, h	nave permanent residence in other
piaces in	province (KT1); 3. Live in commune, have permanent resi	dence outside province (KT3)	4. Have temporary residence in
com	mune (KT4)	uence ouisiae province (K15)	4. Have temporary residence in
4.	Which of the following living ite	ems does your household ha	ave?
	☐ 1 Car. ☐ 4 High-class wood	d furniture	TV
Washin	g machine.		
	2 Motorbike. 5 Sound system	8 Expensive bed and ca	abinet 11 Water heater
Г	3 Air-conditioner. 6 Telephone	e	∏ ₁₂ Bike
1	household meals such as vegetables into the total revenues)		self-sufficiency sources for into money for calculation
i	household meals such as vegetables	s, chickens, pig, fish, ducks	into money for calculation Unit: VND
1	household meals such as vegetables		into money for calculation
i	household meals such as vegetables into the total revenues)	Revenues calculated by	into money for calculation Unit: VND Revenues calculated only
NO.	household meals such as vegetables into the total revenues) Income sources	Revenues calculated by	into money for calculation Unit: VND Revenues calculated only
NO. 1. 2.	Income sources Cultivation Breeding (including aquaculture)	Revenues calculated by	into money for calculation Unit: VND Revenues calculated only
NO. 1.	Income sources Cultivation Breeding (including aquaculture) Employed	Revenues calculated by	into money for calculation Unit: VND Revenues calculated only
NO. 1. 2.	Income sources Cultivation Breeding (including aquaculture)	Revenues calculated by	into money for calculation Unit: VND Revenues calculated only
NO. 1. 2. 3. 4.	Income sources Cultivation Breeding (including aquaculture) Employed Salary/pension	Revenues calculated by	into money for calculation Unit: VND Revenues calculated only
NO. 1. 2. 3.	Income sources Cultivation Breeding (including aquaculture) Employed	Revenues calculated by	into money for calculation Unit: VND Revenues calculated only
NO. 1. 2. 3. 4.	Income sources Cultivation Breeding (including aquaculture) Employed Salary/pension	Revenues calculated by	into money for calculation Unit: VND Revenues calculated only
NO. 1. 2. 3. 4. 5.	Income sources Cultivation Breeding (including aquaculture) Employed Salary/pension Trade/service	Revenues calculated by	into money for calculation Unit: VND Revenues calculated only
NO. 1. 2. 3. 4. 5. 6.	Income sources Cultivation Breeding (including aquaculture) Employed Salary/pension Trade/service Saving	Revenues calculated by	into money for calculation Unit: VND Revenues calculated only

Note:

• Yearly earnings will be recalculated monthly to have average income of households (by month).

6. What and how much are the monthly expenditures of the family?

Total income

NO.	Expenditure	Calculated by month	Calculated by year only
1.	Eating		
2.	Electricity		
3.	Water		
4.	Garbage fee		
5.	Sewage fee		

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6.	Travel expenses		
7.	House rental (if any)		
8.	Cost for studying		
9.	Health care		
10.	Entertainment		
11.	Other costs		
	Total expenditure		
7.]	• Some costs for producing/garme then evenly divided the number of the stable? Is your family's income stable?		
_	_,		
8.	To you, does your family fall in	_ ~ .	
Ĺ	Poor	3 Family headed by wor	
L	2 Families of ethnic minorities	4 Families with elderly	and disabled
II. LA	ND - HOUSE		
9.]	How long has been your family l	iving here?	
	1 Less than 1 year	4 From 10 to 20 years	
	2 From 1 to 5 years	5 20 years or more	
	3 From 5 to 10 years		
10.	-		Garden house
11.	How many m ² of land is your far	mily using?	m²
12.	Total floor area of your m²/person	house:	_m², equivalent to:
13. ([ought/self-constructed 5 ented house/land	Other
	What kinds of real estate papers 1 Red book/pink paper	do you have?	

Coastal Cities Sustainable Environment Project Quy Nhon City Sub-project 2 House granting paper issued by governing agency 3 Certificate of temporary home/land 4 Land lease 5 No certificate is available 14.1. *If not, please specify reasons:* 1 Too expensive 2 No legal papers 3 Rented house/land 4 Other 6 Other (please specify)_____ 15. What kind of ownership does your house fall in? 1 Private house 4 House of the collective/agency 2 Rented/borrowed from individuals 5 Unknown 3 Rented from the State Other (please specify) III. POWER SUPPLY, TRAFFIC AND TRANSPORTATION PARTICIPATION 16. Which power source is your family using? 1 Grid with its own electric meter 3 No power used ² Connected though another family 17. Frequency of power cuts? 1 Hardly cut 3 - 5 times/month 5 Unknown 4 More than 5 times/month \square_2 1-2 times/month 18. How is the amperage of your family? 1 Strong enough 3 Weak 5 Unknown 4 Very weak 2 Normal 19. How is your house located? Road, street side 4 In land/alley of 2 to 3 m wide

\square_1 Paved with asphalt	3 Paved with gravel/stone/brick/cement	5 Other
specify):		
2 Concrete	4 Soil road	

6 Other (specify):

 \square_2 In land/alley of more than 5 m wide \square_5 In land/alley of less than 2 m

3In land/alley of 3 to 5 m wide

your family's living area have?

☐ 1 Water supply pipes Electricity	4 Common drainage	culvert	7
2 Stormwater drain	5 Technical trench		8 Other (specify):
3 Wastewater drain	6 Lighting electricity	y	
22. Evaluate the road/lane/alley s selected)	ystem in your living a	rea (more th	an 1 options may be
1 Generally good	4 Low roadbed		6 A lot of dust,
irt 2 Flooding/muddy	5 Roadbed is rough, l	hard to travel	7 Other (specify):
3 Narrow road			
23. Which of the following vehic	cles and how many o	of each type	e does your family
have?	·	. 1	
1 Car, quantity:			
2 Motorbikes, quantity:			
3 Electric bike/motorcycle, qua	antity:		
4 Bikes, quantity:			
4 Bikes, quantity:			
4 Bikes, quantity: 5 Tricycles, quantity:			
4 Bikes, quantity: 5 Tricycles, quantity: V. WATER SUPPLY SITUATION 24. How many water sources doe	OF HOUSEHOLD	the whole fa	amily's activities all
4 Bikes, quantity: 5 Tricycles, quantity: V. WATER SUPPLY SITUATION	OF HOUSEHOLD		nmily's activities all
☐ 4 Bikes, quantity: 5 Tricycles, quantity: V. WATER SUPPLY SITUATION 24. How many water sources doe year round?	OF HOUSEHOLD s your family use for		-
☐ 4 Bikes, quantity: ☐ 5 Tricycles, quantity: V. WATER SUPPLY SITUATION 24. How many water sources doe year round?	OF HOUSEHOLD es your family use for	3 3 sou	arces or more
☐ 4 Bikes, quantity: 5 Tricycles, quantity: V. WATER SUPPLY SITUATION 24. How many water sources doe year round? ☐ 1 1 source []	OF HOUSEHOLD es your family use for 2 2 sources y in your family for va	3 3 sou	arces or more
☐ 4 Bikes, quantity: ☐ 5 Tricycles, quantity: V. WATER SUPPLY SITUATION 24. How many water sources doe year round? ☐ 1 1 source 25. How much water is used daily	OF HOUSEHOLD es your family use for 2 2 sources y in your family for va	3 3 sou	urces or more ses?
□ 4 Bikes, quantity: □ 5 Tricycles, quantity: □ 5 Tricycles, quantity: □ 1 Source □ 1 source □ 1 source □ 1 1 source □ 1 source □ 1 1 source □ 1 so	OF HOUSEHOLD s your family use for 2 2 sources in your family for va whole 1. Summer	ious purpos	ses? Average/per capit
□ 4 Bikes, quantity: □ 5 Tricycles, quantity: □ 5 Tricycles, quantity: □ 5 Tricycles, quantity: □ 1 SUPPLY SITUATION 24. How many water sources doe year round? □ 1 1 source □ 1 1 source □ 1 1 source □ 1 1 source □ 1 1 Supply Water used for the purposes of the whousehold 1. Eating, drinking	OF HOUSEHOLD es your family use for 2 2 sources in your family for va whole 1. Summer (Liter)	ious purpos	ses? Average/per capit
□ 4 Bikes, quantity: □ 5 Tricycles, quantity: □ 5 Tricycles, quantity: □ 5 Tricycles, quantity: □ 1 SUPPLY SITUATION 24. How many water sources doe year round? □ 1 1 source □ 1 1 source □ 1 1 source □ 1 1 source □ 1 1 Supply Water used for the purposes of the whousehold 1. Eating, drinking	OF HOUSEHOLD es your family use for 2 2 sources in your family for va whole 1. Summer (Liter)	ious purpos	ses? Average/per capit
□ 4 Bikes, quantity: □□ 5 Tricycles, quantity: □□ 7 Tricycles, quanti	OF HOUSEHOLD es your family use for 2 2 sources in your family for va whole 1. Summer (Liter)	ious purpos	ses? Average/per capit
□ 4 Bikes, quantity: □ 5 Tricycles, quantity: □ 5 Tricycles, quantity: □ 5 Tricycles, quantity: □ 1 V. WATER SUPPLY SITUATION 24. How many water sources doe year round? □ 1 1 source □ 25. How much water is used daily Water used for the purposes of the household 1. Eating, drinking 2. Use for cooking (including water for vegetable/food/rice) 3. Use for bathing, washing	OF HOUSEHOLD es your family use for 2 2 sources in your family for va whole 1. Summer (Liter)	ious purpos	ses? Average/per capit
□ 4 Bikes, quantity: □ 5 Tricycles, quantity: □ 5 Tricycles, quantity: □ 5 Tricycles, quantity: □ 1 SUPPLY SITUATION 24. How many water sources doe year round? □ 1 1 source □ 1 1 source □ 25. How much water is used daily Water used for the purposes of the household 1. Eating, drinking 2. Use for cooking (including water for vegetable/food/rice) 3. Use for bathing, washing 4. Watering plants, washing vehicles	OF HOUSEHOLD es your family use for 2 2 sources in your family for va whole 1. Summer (Liter)	ious purpos	ses? Average/per capit
□ 4 Bikes, quantity: □□ 5 Tricycles, quantity: □□ 5 Tricycles, quantity: □□ 24. How many water sources doe year round? □□ 1 1 source □ 25. How much water is used daily Water used for the purposes of the household 1. Eating, drinking 2. Use for cooking (including water for vegetable/food/rice) 3. Use for bathing, washing 4. Watering plants, washing vehicles 5. Other, specify: Total number of liters of water washing	TOF HOUSEHOLD es your family use for 2 2 sources 7 in your family for va whole 1. Summer (Liter) washing	ious purpos	ses? Average/per capit
□ 4 Bikes, quantity: □□ □ 5 Tricycles, quantity: □□ V. WATER SUPPLY SITUATION 24. How many water sources doe year round? □ 1 1 source □ 1 1 source □ 25. How much water is used daily Water used for the purposes of the whousehold 1. Eating, drinking 2. Use for cooking (including water for wegetable/food/rice) 3. Use for bathing, washing 4. Watering plants, washing vehicles 5. Other, specify: Total number of liters of water tho	of HOUSEHOLD s your family use for 2 2 sources in your family for va whole 1. Summer (Liter) washing used for pusehold	ious purpos 2. Winter (Liter)	Average/per capit amount of water
□ 4 Bikes, quantity: □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	of HOUSEHOLD s your family use for 2 2 sources in your family for va whole 1. Summer (Liter) washing used for pusehold	ious purpos 2. Winter (Liter)	Average/per capit amount of water

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Water source 1. Eating drinking washing Summer Summer			1. Us	e purpose	2. Quality	y of water
meter 2. Tap water through other households 3. Bored well 4. Dug well 5. Rainwater 6. Pond/lake/river/canal water 7. Other: bought/bottled Water quality code: 1. Clear and clean water 2. Clear but with odor 2. Clear but with odor 4. Other (specify): 28. Have you ever checked the quality of water? 1 Yes 28.1. If yes, specify the inspection form: 1 Use trial pen for checking 2 Send testing samples to the laboratory 3 Preventive medicine/inspection program 4 Through visual assessment/folk experience as tea making 5 Other, specify 29. Does your family have a water treatment system of household scale? 1 Yes 29.1. If yes, specify the type of water treatment system: 1 Sand filter tank 2 Ceramic filter (Korean style) 3 Micro filter (3 filtering blocks) 7 R.O filter Filter mounted with faucet head 29.2. How much is the cost of the above equipment?	Water source	Eating, drinkin	Bathing,	watering trees, cleaning		2. Winte
2. Tap water through other households 3. Bored well 4. Dug well 5. Rainwater 6. Pond/lake/river/canal water 7. Other: bought/bottled Water quality code: 1. Clear and clean water 2. Clear but with odor 3. Not clear and with odor/color 4. Other (specify): 28. Have you ever checked the quality of water? 1 Yes 28.1. If yes, specify the inspection form: 1 Use trial pen for checking 2 Send testing samples to the laboratory 3 Preventive medicine/inspection program 4 Through visual assessment/folk experience as tea making 5 Other, specify 2 None 29. Does your family have a water treatment system of household scale? 1 Yes 29.1. If yes, specify the type of water treatment system: 1 Sand filter tank 5 Ozone generation device 2 Ceramic filter (Korean style) 3 Micro filter (3 filtering blocks) 7 R.O filter Filter mounted with faucet head 29.2. How much is the cost of the above equipment?	Tap water through its own					
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7. Other: bought/bottled **Vater quality code: 1. Clear and clean water 2. Clear but with odor 4. Other (specify): 28. Have you ever checked the quality of water? 1 Yes 28.1. If yes, specify the inspection form: 2 Send testing samples to the laboratory 3 Preventive medicine/inspection program 4 Through visual assessment/folk experience as tea making 5 Other, specify 2 None 29. Does your family have a water treatment system of household scale? 1 Yes 29.1. If yes, specify the type of water treatment system: 1 Sand filter tank 2 Ceramic filter (Korean style) 3 Micro filter (3 filtering blocks) 7 R.O filter Filter mounted with faucet head 29.2. How much is the cost of the above equipment?	Rainwater					
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Everymonths. How much does one time cost?	1 Use 2 Sen 3 Prev 4 Thro 5 Otho 5 Otho 2 None 29. Does your family have 1 Yes 29.1. If yes, specify 1 San 2 Cert 3 Mic	e trial pen for the trial pen	r checking mples to the icine/inspec assessment reatment s water treat Korean styl	system of household scarted ment system: Solution program	ale? neration devinge purifier	ice
	1 Use 2 Sen 3 Prev 4 Thro 5 Otho 5 Otho 2 None 29. Does your family have 1 Yes 29.1. If yes, specify 1 San 2 Cer 3 Mic Filter	e trial pen for detecting saventive med ough visual er, specify er a water to the type of defilter tank amic filter (3 filter) mounted water to the type of the type of defilter and the type of defilter tank amic filter (3 filter) mounted water to the type of the type of defilter tank amic filter (4 filter) amounted water the type of type of the type of the type of the type of type	r checking mples to the icine/inspectassessment seatment	system of household scarting by the system: Solution program	ale? neration devinge purifier	ice
VND/time	1 Use 2 Sen 3 Prev 4 Thro 5 Othe 5 Othe 2 None 2 None 29. Does your family have 1 Yes 29.1. If yes, specify 1 San 2 Cert 3 Mic Filter 29.2. How much is	e trial pen for detecting sarventive med bough visual err, specify	r checking mples to the icine/inspectassessment. reatment stream Korean style filtering block with faucet the above e	system of household scartes and system of household scartes are a maked and system of household scartes are a maked and system. System of household scartes are a maked and system. 5 Ozone general system: System of household scartes are a maked and system. 5 Ozone general system. 6 Ion exchanges are a maked and system. 7 R.O filter head	ale? meration devinge purifier	ice
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29.4. Evaluate water quality after filtering with these devices:	1 Use 2 Sen 3 Prev 4 Thro 5 Othe 5 Othe 2 None 29. Does your family have 1 Yes 29.1. If yes, specify 1 San 2 Cer 3 Mic Filter 29.2. How much is 29.3. How long do Every 1 Every 1 Sen 29.3. How long do Every 1 Sen 29.3. How long do Every 29.3.	e trial pen for detesting sarventive med ough visual er, specify	r checking mples to the icine/inspectassessment. reatment services assessment. Korean style filtering block with faucet the above expectation of the interior of the interio	system of household scatter in a system: System of household scatter in a system: Solution S	neration devinge purifier	ice
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30. Do you need to improve the water quality?

Coastal Cities Sustainable Environment Project *Quy Nhon City Sub-project* 1 Yes 30.1. If yes, specify how to improve: 1 Connected to the water supply system of the city (in case not connected) 2 Improve water quality at the water supply plant (in case connected) 3 Family additionally equip water purifier 2 None. Why? V. WATER DRAINAGE SITUATION 31. Where is your family's wastewater drained to? (more than one reply may be selected) \square_1 Wastewater from toilets into septic tanks Directly drained river/lake/canal 4 Other, specify: 32. Please describe the sewer system of group, ward where your family is living. \square_1 Concrete sewer pipes 4 No drainage sewer/ditch 2 Opened ditch 5 Other form, specify: 3 Excavated trench (built) 33. In recent years, has the area of your family been flooded? 1 Yes 33.1. If yes, please provide information about the recent floodings: NO. Information Indoor Outdoor Number of floods...../year 1. Time of floods....hours/time 2. Deepest flood... cm 3. 33.2. Possible causes of flooding in your localities (more than one answer can be selected). 1 Heavy rain 4 Culvert is too small 2 Floor is lower than street 5 No sewer 3 Sewer blocked 6 Other 33.3. Before the flooding season, does your family has to spend for the reinforcement of the house? Yes. How much does it cost/year ______ VND/year \square_2 None. 33.4. After the flooding season, does your family has to spend for the reinforcement of the house?

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 \square_2 None.

Yes. How much does it cost/year ______ VND/year

Coastal Cities Sustainable Environment Project Quy Nhon City Sub-project 2 None 34. Is is necessary to renovate the water drainage system where you are living? 1 It is necessary to renovate and upgrade immediately 2 If possible, it is better to renovate 3 No need to renovate, investment in other items is prioritized 4 Unknown VI. GARBAGE COLLECTION 35. Which form of garbage collection does your family use? Garbage bin 2 Garbage bag 3 Other forms, specify_____ 36. Does your family classify waste? 1 Yes 2 No. Reason: 37. How is waste treated by your family? Waste collector coming to door to collect, frequency: Every _____ Family carries garbage to dump in designated places (common landfills or waste collection truck) 3 Pour into rivers, canals, ponds, lakes 5 Dig holes/pour into garden 4 Pour into empty lot 6 Bury/burn 38. Is the residential living environment here contaminated? $\prod_1 \text{Yes}$ No (Move to part VII)

39. If yes, why and how?

NO.	1. Sources of pollutants	2. Level of impact			
110.	1. Sources of pollutants	1. Really great	2. Great	3. Little	
1.	Noise				
2.	Dust				
3.	Flooding due to rainwater				
4.	Waste water from living sewers				
5.	Wastewater from production, business				
٥.	facilities				
6.	Stagnant wastewater from rivers, lakes				
7.	Odor from drains, ditches				
8.	Odor from garbage				

VII. HOUSEHOLD SANITATION WORKS AND SOCIAL INFRASTRUCTURE

40. Does your family have a private toilet?

Coastal Cities Sustainable Environment Project Quy Nhon City Sub-project 1 Yes 40.1. If yes, which kind of toilet is your family's? 3 Box ☐ 1 Septic 2 Semi-septic 4 Temporary 40.2. How frequently is the septic tank suctioned? 40.3. And the cost for each suction: ______ VND/time 2 None 41. Assess the quality of your family's toilet? 1 Clean and hygienic 2 Dirty and unhygienic (specify reason: _____) 3 No answer 42. How are the following infrastructure systems in your area? NO. Infrastructure 1. Quantity 2. Hygiene system 2. 3. 1. 1. 2. 3. 4. Sufficient Insufficient Normal Bad Unknown Unknown Good Kindergarten/preschool 1. Primary school (level 2. 1). Secondary school (level 3. 2). Clinics 4. Culture House 5. Market 6. Park 7. **Points** of 8. recreation/entertainment VIII. EDUCATION, HEALTH, KNOWLEDGE AND PRACTICE OF THE PEOPLE 43. How many children of school age in your family are not taken to school? children 43.1. Why are they not taken to school? School too far 3 Children are needed to

support their families 2 Do not afford for them to school 4 Other, specify: 44. Does your family often drink boiled water or unboiled water? 1 Boiled water 3 Sometimes boiled water, Sometimes unboiled water 4 Drink directly from R.O filter 2 Unboiled water 94

45. Do your family me	mber wash har	nds before eat	ing?	
1 Regularly wash	l	3	Do not wash	
2 Occasionally		4	No answer	
46 D 0 11		J 64 4	0	
46. Do your family me			_	
☐ 1 Regularly wash	l	<u> </u>	Do not wash	
2 Occasionally		4	No answer	
47. Which sources of and sanitation from		o you often li	isten about disse	mination of water
☐ 1 Speaker/radio is		\Box .	TV	
2 Clinic staff/pers			Meetings	
3 Poster/pictures/			· ·	ation from school)
3 Toster/pictures/	siogalis		Other (specify):	
		L /	Other (specify).	
48. What are the com	non diseases in	the village/ar	ea of residence o	f vour family?
1 Flu			Gynecology	- J • •• , •
2 Headache			Parasitical worms	S
3 Diarrhea			Hepatitis A	
4 Dysentery			Stomach	
5 Cholera		=	Unknown	
<u>=</u>	ias rashas	<u> </u>		
6 Itching/allerg	ies, rasiles	12	2 Other (specify):	
49. In the past month, ☐₁ Yes	is anyone in yo	our family ill/i	nfected with dise ☐2 No (Move to	
50. If yes, please fill in	the table below	v ?		
Patient	Age	Gender 1. Male 2. Female	Disease type (specify code as the above question)	How were they treated?
ode for patients:	Code of treatments	<u> </u> ::		
Household head	•	eatment, self-healing	g Worshiping	
2. Spouse	2. Buy m		6. Treated	l with traditional
3. Children	medicine		7. Oth (-	ynaaifu):
 Parent Grandparent 	5. Ireate	d at clinics.	7. Other (s	гресцу):
2. Similapinoni		4. Ga	o to hospital	

6. Other:		
•	hat the common diseases/ons of sanitation and living v	or illnesses of family members are related water?
1 Yes		
51.1. If yes,	what is the main reason of thi	s disease?
\square_1 (Contaminated by food sourc	e
\square_2 l	Muddy, flooding roads	☐ ₃ Damp house
Co	ontaminated by sewage and	waste source
□ N	oise/sludge of production fa	cilities
\square_6 (Other (specify)	
_2 Unrelated (Move to part IX)	

IX. GENDER ISSUE

52. How is the division of labor in your family?

3 Unknown (Move to part IX)

NO.	Work	Division of labor			
	Work	1. Women	2. Men	3. Both	
In the	family				
1.	Money keeping				
2.	Housewife				
3.	Main decisions related to finance as purchasing/selling expensive assets: house, land, vehicles				
4.	Decision on study and work of children				
5.	Decision on marrying wife/husband for children				
6.	Bank loans				
Tradi	ng				
1.	Purchase from dealers				
2. Sell					
3.	3. Calculate records				
4.	Accounting work				
Asset ownership issue					
5.	Title to the land use rights and assets				
Partic	ipate in community activities				
6.	Participate in community meetings				
7.	Join local organizations				
8.	Other (specify):				

Yes	\bigcap_2 No.	
		
X. DESIRE AND ABILITY	TO PARTICIPATE	
54. If the area is invested first priority of the wa		velopment, what are the three areas of
☐ 1 Upgrade roads.		☐ ⁷ Garbage collection.
2 Upgrade electricit	y network	☐ 8 Cultural House.
3 Build and upgrade	water supply system	9 Hospitals/clinics.
4 Rain water and water	aste water drainage	10 School.
system		11 Points of recreation/entertainment
5 Public sanitation f	acilities	12 Market
6 Household sanitat	ion facilities	13 Other, specify:
IF INFRASTRUCTURE UI	PGRADING PROGRA	MS FOR YOUR AREA, THEN:
55. Are you willing to par discussions) to develop	•	mments (eg, participation in meetings
$\bigcap_1 Yes$	p the project.	□ ₂ No
<u>□</u>		
56. Are you willing to par	ticipate in monitoring	the project implementation?
☐ ₁ Always ready		☐ 3 Do not participate
☐ Will participate if r	requested	
57. Does your family wish	ı to renovate/construct	new toilets in the next 3 years?
\square_1 Yes and ready to s	self-pay	
<u> </u>		referential interest rate (an amount of
<u> </u>	ose to borrow with pr	referential interest rate (an amount of
2 Yes, and propo	ose to borrow with pr	referential interest rate (an amount of
2 Yes, and proportion approximately	ose to borrow with pr VND/household)	
2 Yes, and proposition approximately	ose to borrow with prVND/household) n to connect to the sewa	age system of the project?
2 Yes, and proposition approximately	ose to borrow with prVND/household) n to connect to the sewa	age system of the project?
2 Yes, and proposition approximately	ose to borrow with property value of the sewar pay for connecting the	age system of the project? sewage pipe of the family to the general
2 Yes, and proposition approximately	ose to borrow with prVND/household) n to connect to the sewa	age system of the project? sewage pipe of the family to the general
2 Yes, and proposition approximately	ose to borrow with provided to connect to the sewar pay for connecting the eify reasons:	age system of the project? sewage pipe of the family to the general
2 Yes, and proposition approximately	ose to borrow with provided to connect to the sewar pay for connecting the eify reasons:	age system of the project? sewage pipe of the family to the general s your family afford and is willing to
2 Yes, and proposition approximately	ose to borrow with provided to connect to the sewar pay for connecting the cify reasons:	age system of the project? sewage pipe of the family to the general

Coastal Cities Sustainable Environment Project

Quy Nhon City Sub-project 59.1. Regarding drainage fee: \prod_{1} 5% of living water price 3 20% of living water price 2 10% of living water price Other, specify: *59.2. Forms of payment:* \prod_{1} In monthly water bill ² Separately from monthly water bill 3 Other, specify: 61. Are you willing to contribute to the construction and maintenance of infrastructure projects in the community where you are living? \square_1 Yes 60.1. If yes, how do you want to contribute? 1 Contribute in cash divided into several installments 2 Contribute in cash in one installment 3 Contribute in things 4 Contribute with labor 5 Other, specify: 2 None 60.2. If you do not want to contribute, why not? (More than 1 option can be chosen) \bigcap_{1} No cash, things, effort to contribute 2 Because it is the responsibility of the State 3 Satisfied with current conditions 4 It is better to live with lower conditions than to contribute 5 Other, specify: ___ 62. Do you propose any suggestion, desires for the project? XI. FOR HOUSEHOLDS WITH AFFECTED LAND/ASSETS 63. Do you know know the compensation rate issued by Ha Nan Province People's Committee for all types of land, houses, structures, removal of graves, crops, livestock when the State recovers land, applied now? 1 Yes □₂ No If yes, do you have any idea about the level of compensation in the above decision: 1 Too low 2 Reasonable 3 High If low, how much is it lower? (compared to the appropriate level) If high, how much is it higher? (compared to the appropriate level) 64. Do you have any information about the price of land where you are living? \square_2 No $| |_1$ Yes

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If yes, how much?	
For residential land:	VND/m ²
For agricultural land:	VND/m ²
Other land, specify:	VND/m ²
65. In case your family land is want to be compensated?	requisitioned or affected by the project, how do you
\square_1 Change land for land	4 Compensate in cash satisfactorily
2 Change house for house	- -
conditions	b bisagree to requisition with an
	6 Other, specify:
support according to the po	cultural land is retrieved, in addition to compensation, licy of the Project; what other supports do you wish to
receive (choose 1 option):	
Occupational training	☐ 4 Development of agricultural models
2 Borrow credit	_ ,
☐ 5 Business support	6 Other, specify:
64.1. If no suggestions, please	let us know your plans to restore the family's income?
67. For displaced households, wha	at form of resettlement do you select?
\square_1 Desire to resettle in loca	l ward
\square_2 Want to go to the resettl	ement site with full project infrastructure
3 Want to buy/arrange acc	commodation
4 Other form, specify:	
68. Do you have any other sugger please specify.	estions on compensation/support and resettlement? If yes,
	The interview is over. Thank for your cooperation!
Surveyor	Respondent
(Signature and full name)	(Signature and full name)

APPENDIX 2 – GENDER ACTION PLAN

1. Basic principles to develop the gender action plan

- Chances of the project and sharing interest equally between women and mem;
- Systematic measures in order to decrease the unequality in gender in the area of the project in the activities relating to repairing, improving the safety of dams and reservoir;
- Method approaching the targets of the poor women;
- Collecting the analyzing data in gender including activities of supervision and assessment participated by the relevant sides;
- Facilitate to assist the development of ability and the participation of women in all activities of the project in terms of gender;
- Promote the presence of women in agencies making decision at all levels.

2. Bases to develop the gender action plan

- The legal documents of the law of Vietnam and the policies of sponsor;
- The gender assessment results in the sub-project area in the process of implementation of the project;
- The activities, namely in the implementation of Components of the project.

3. Output of the plan

- Raising the awareness of gender for the leaders of the local government and the local residents;
- Raising the awareness of the local residents including cå men and women about the positive impacts and negative impacts of the project;
- Ensuring the participation of women (at least 30%) in the community supervision committee:
- Ensuring the participation of women (at least 30%) in the activities of consultation of the project;
- Ensuring the participation of local women and men in the mass media propaganda in order to minimize the negative impacts of the project;
- Ensuring th equality in chances of approaching, benefiting for women and men in the community to the program in order to minimize the negative impact to the health in the process of implementation of the project;
- Ensuring th equality in chances of approaching, benefiting for women and men in the community to the program of assistance of livelihood, especially the group of single women, poor women, ethnic women.

4. Gender Action Plan

Results project	of	the	Activity and indicator	Responsibility	Time
Output 1.	Impl	ement	ing the investment of ca	tegories of the project	

Improving the drainage of the rainwater and reducing the number of areas of the flooding.

Promoting the ability of collect and treat the wastewater, contributing to improving the environment of water, soil and air

Promoting the ability and effectiveness of collecting the waste.

Improving the hygiene condition in schools and the public places.

Improving the condition of the traffic in inner city and developing the infrastructure of the sewer system.

Contractors must use the priority of the unskilled labours (through the subcontract); at least 30% of total the number of recruited labourers must be the local unskilled labourers;

Of which 30% the local labourers, priority is the local unskilled women labourers and women labourers will receive the same wages for the same job;

Contractors must not hire the child labourers;

The local residents wishing to work for the project will be written their name in the list of names of hamlets, village. The head of hamlet, village officials and of ward/commune will provide this list of names to contractor, contractor will select on basis of priority of the poor households. the vulnerable households;

Promoting the awareness on preventing HIV/AIDS and sex transmitted diseases for workers working at site of the project;

Directly consulting the poor women /women-

PMU/Consultant in coordinating the project will be responsible for ensuring these terms will be written in the contract; officials of commune will submit contractor the list of names of persons wanting to work for the project;

Officials of ward/commune are responsible for ensuring the planned targets.

Women's union of ward/commune are also responsible for ensuring the local women of ward/commune will be hired to work for project.

Construction phase

headed households in	
the process of	
implementation and	
planning of the system	
to collect the	
wastewater;	
30% of representatives	
is the women in the	
community	
supervision committee	
and be	
educated/trained in	
planning and technical	
-	
supervision;	
Men toilets and	
women toilets at site	
must be built	
separately.	

Output 2. Promoting the ability of institution in management of the investment in categories of the project

Output 3. Raising f	disclosing the information, education and communication to male, female subjects and representative of the local government. IEC Documents on gender combining the issues and demand of women are disclosed through channels that women can access. Ensuring 50% trainee of IEC is women.	unity on the activities	s of the project and
Promoting the communication, the public community consultation	communicate the	The project management unit; The local government of commune; Contractor	Process of implementation
Raising the awareness on the potential social evils	See the community health action plan; Information on minimizing the risks will be transferred to the communes, hamlets impacted by	The project management unit; Contractor The local healthcare centre, officials of ward/commune	Construction phase

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method approach the poor and vulnerable househol	
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6. Implementing cost

STT	Item	Unit	Numbe r	Price (USD)	Amount
1	01 social and gender specialist	Person - month	3	2000	6000
	01 specialist in information, education, communication (IEC)	Person - month	3	2000	6000
2	Meeting, education and training	Ward/co mmune	16	5000	60000
3	Communication campaign and behavior change	All-in	1	100000	100000
Total					

APPENDIX 3 – ACTION PLAN FOR COMMUNITY HEALTH

1. Goals

1.1. Overview goals

Minimizing the negative impacts of the project to the health of the local resident and emigrated workers implementing the activities of the Sub-project.

1.2. Specific goals

- Promoting the mass media propaganda, educating about the health for workers, the local residents, the local government about the potential risks of breaking out diseases in the process of implementation of the Sub-project;
- Monitering well the negative impacts and potential risks of breaking out the diseases to the health of the community in the process of implementation of the Subproject;
- Actively preventing the diseases breaking out in the process of implementation of the subproject, at the same time responding effectively in case of breaking out diseases;
- Controlling tightly the labour safety issue in and out the area of implementation, preventing muximum factors causing the labour accidents.

2. Taking responsibility for the implementation

2.1. Person/institution taking responsibility

- PMU:
- Consultant in safety policy;
- Contractor;
- The local government of the project;
- Clinic centre of communes;
- Workers:
- The local residents.

2.2. The specific responsibilities

- PMU: is responsible for the overview supervising all activities of the project, in which including the mass media propaganda plan, the consultation of the community health. The issues relating to the community health are one of contents being reflected in the mechanism for complaints of the project;
- Consultant in the safety policy:
 - Supports the local government to prepare the contents of mass media propagenda program about the preventing the diseases; preventing the labour accidents; the contents of mass media propaganda in order to provide the knowledge, increase the awareness of community (including worker, the local residents, the local organizations, PMU);
 - Supervising the issues of complaints and resolving the complaints relating to the issues of health impacted by the subproject.
- Contractor:

- Will assigne the leaders of works or a worker responsible for the labour safety and the health of worker in order to supervise, assist, resolve the problems arising;
- Cooperates with the clinic centres, the local medical workers of hamlets, villages to timely update the situation of diseases in the loacal areas or the issues of health of worker;
- Cooperates with the local government, the clinic centres of communes in order to announce the issues relating to the safety of the local residents in the area of implementation or on the sections of roads transporting the building materials or waste;
- Cooperates with PC of commune/the clinic centre of commune in order to cooperate to solve the accidents occuring or diseases arising;
- The leader of work will be the person on behalf of contractor to cooperate with the local government to implement the activities of the mass media propaganda, consultation relating to the health of community and workers.

• The local government of the project:

- Responsible for all issues arising in the area of communes. The government of commune can hand over the community supervision committee to supervise the activities of mass media propaganda program, consultation in the local area.
- PC of communes/clinic centre actively control hygiene, labour safety at site and tents of workers.

Commune clinic centre:

 Has the function of management, supervision, first aid, report on the community health in commune. Therefor, the issues relating to the community health must be supervised and supported by this unit.

Worker:

- Participates in the mass media propaganda program on the issues of health in the local area;
- o Complies with regulations of hygienic safety, labour safety.

• The local residents:

- Participate in the mass media propaganda program on the issues of health in the local area;
- o Comply with regulations of hygienic safety, labour safety.
- Have the awareness of preventing these impacts arising in the process of implementation of the subproject for themselves, their family and community.

3. Location to implement

The plan to control the public health will carry out in the area occurring the activities relating to the project for example: the area of the implementation of the Sub-project "Phan Rang – Thap Cham city Sustainable Environment"; the area of living of workers; wards/communes in the project area.

4. Time to implement: Before and in the process of implementation of the Subproject.

5. Indicators to control, supervise and manage

- Documents guiding the first aid /response to diseases, accidents used/provided by contractor to worker;
- Documents on mass media propaganda on the community health of the subproject;
- The number of direct communication session for worker, the local residents and community;
- Number of workers guided/trained on the issues relating to the community health;
- Number of the local residents guided/trained on the issues relating to the community health;
- Number of labour accidents due to the implementation of the Sub-project;
- Number of the traffic accidents due to the vehicles serving the implementation of the Sub-project;
- Times/Number of worker getting ill, especially infectious diseases;
- Availability of the medical cabinet for worker in tents;
- Number of the local residents having the issues relating to health due to the implementation of the subproject, especially infectious diseases.

6. fund for implementation

- For contractor: capital source for contractor signed in the contract of the implementation and installation.
- For the clinic centre: no capital source for these activities because this is responsible of the healthcare unit in the community health management works.

7. Contents of the plan to control the public health

7.1. Control the area of implementation of the subproject

To protect the environment and health of the local residents, the area of implementation will be control tightly in order to minimize the in/out travel of the local resident. Before starting the activities of implementation, Contractor will apply the measures of security and supervising the in/out travel of the local residents in that area. Contractor will localize the areas of implementation; erect the flags on the trees, bushes and fixed milestone in the area of implementation not being affected; and areas bordering activities in order to minimize the in/out travel. The domestic risks in the area of implementation include digging, embanking, and the travel of machines, equipment, so only workers are allowed go in the area of implementation. This information will announce at meetings and frequently repeat on radio speaker of commune.

7.2. For the building waste

The construction waste should gather and transport to the waste landfill defined before the implementation. Trucks transporting the construction waste must be covered, avoiding scattering, impacting to the environment and activities of the local residents, leading to the issues of health.

7.3. Risks of breaking and dispersing diseases

- Diseases, especially the infectious diseases are usually present in the project area
- The risks of dispersing the infectious diseases or the risks of impacting to the community health due to emigrated workers.

7.4. Avoid the personal injuries

- The workers directly participating in the implementation must equip the protective clothing, masks, gloves, gloves, hard hats, cottong earplus,...according to the existing regulations in labour safety. Provide the knowledge on hygiene, the labour safety for workers.
- The local residents should be controlled the travel in/out the area of impermentation as section 7.1.

7.5. Respond to the emergencies

Provide the contact address: Contractor and the local government should provide the local residents the contact address and phone numbers in case of emergencies. Maybe provide the plan of roads to go to the nearest clinic centre.

The problems maybe happening in the process of implementation of the subproject include: traffic accidents or machine/equipment accidents, fires, explosions or accidents in the environment (oil spill due to disorder of machines, tanks containing the waste of households and workers break ...).

When occurring the accidents, the persons relating to at site contact with the addresses provided above.

When occurring accidents, need to apply the first aid before bringing to the medical centre. When occurring the fires, explosions or the environmental accidents, need to localize the area of the accidents and contact to the authorities to solve.

In case of occurring the natural disasters, for example earthquake, flooding, or other dangerous weather conditions, Contractor will stop all activities of work and bring workers to the safe places, covering the working area, avoiding the chemical spills.

APPENDIX 4 – COMMUNICATION, CONSULTATION PLAN WITH PARTICIPATION

1. Objectives

- Promote to access to information according to the own interest to the local residents in the project area;
- The local residents is reported, updated plans to implement the project in order to acitively prepare the plan to produce, and live;
- Information for development: increase the ability to access to information serving the life of the local resident, contributing to imporving the quality of the life of the local residents;
- Increase the participation of the local resident.

2. Subjects to be communicate information and consult

- The local residents in communes, especially in the area of implementation of the project and hamlets/villages having the means transporting the building materials through.
- The local government, cadre of hamlet/village.
- Workers, cadre working at site.
- For the community, encourage the participaction of both men and women, ethnic persons (if have).

3. Contents to communicate the information, consult

- Contents, the main categories of the subproject, the capital source to implement;
- The effectiveness of the Sub-project;
- Arranging the implementation of the subproject: information on Investor, Contractor, supervisions to be implemented;
- Plan, schedule of implementation of categories of main works;
- The impacts maybe occurring in the process of implementation to the environment, the society in the local area and the local resident in the area of the project;
- Mechanism to participate of the local resident, the community supervision mechanism, the complaint solving mechanism;
- The problems arising in the process of implementation the project: disagreements, conflic arising, inflamable substances, explosives, actions violating the commitment of Contractor, Investor...
- Job recruitment annoucement for the local labourer.

4. Time:

Before and in the process of implementation of the Sub-project.

Before the implementation about 1 month, contractor will cooperate with the local government to announce the plan to implement as well as potential impacts to the community health.

5. Place:

• In communes belonging to areas of implementation of the subproject.

6. Method to communicate the information and consult

Activities to communicate the information and consult are though the following main methods:

- On the radio speaker in wards/communes. At present, in the area of the city, there are the system of radio speaker in hamlets, villages. Majority of activities of communicating the information of the local area to the public community are carried out through this method. Therefor, system of radio speaker will be used to communicate the information to the local residents in the commune on the relevant issues in the process of implementation the Sub-project.
- Meeting the public community/the public consultation: this method will be carried out with the participation of the cadre of hamlets in the communes of the project; the local residents in communes belonging to the area of the project, the area of implementation of the Sub-project and households living along two sides of roads transporting the building material and waste.
- Combination with activities of the local departments, branches, unions or the local government: every month, the local government usually has the meeting with the cadres of communes, departments, branches, unions in the hamlets, villages, therefor, contents to communicate can be combined into these activities.

7. Persons to implement:

- Before the implementation of the project: Consultant in safety policy will be the unit to implement activities of communicate the information, the public consultation for the safety policy issues in genera.
- In the process of implementation of the project: The project management unit, Contractor will cooperate with the local government and unions, the social organizationz in hamlets, villages to implement the mass media propaganda activities according to the methods mentioned above.

The relevant sides will receive the assistance from the domestic an international specialists in institution as well as the domestic and international social specialists.

8. Supervising, controlling the implementation

The plan to communicate the information and the public consultation relating to the participation, the supervision of the following units:

- The project management unit.
 - The project management unit will be responsible for supervising generally all the activities of the project, in which there is the plan to communicate the information, the public consultation. The issues relating directly to the local residents on the environment, the society, the compensation for the impacted assets are one of contents being reflected in the mechanism for complaint of the project.
- The local government of commune belonging to the areas of the Sub-project.
 - The local government of communes will be responsible generally for all of the issues arising in the area of commune. The local government of commune can assign The community supervision committee to supervise the activities of communicate the information, the public consultation in the local area.

Contractor.

The leader of work will be on behalf of Contractor to cooperate with the local government to implement the information communication activities, the public consultation and workers at site..

9. Necessary sources: see Section 6. Appendix 2 – Gender Action plan.

APPENDIX 5 – MECHANISMS FOR COMPLAINTS AND RESOLVING THE **COMPLAINTS**

The independent mechanism for complaints and resolving the complaints will be set up on the bases of the available system of the Government of Vietnam and with the participation of the independent supervision unit.

The complaints relating to any issue of the project will be resolved through negotiation in order to meet the agreement. The complaint will go through three stages before it can be transferred to the court. Enforcement agencies will pay all administrative fees, related to legal complaints handler. Including these costs in the budget was to implement the project.

Grievance procedures and resolving complaints will be made as follows:

The first level

PC of ward/commune: a impacted household if not satisfies will address their complaint to any member of PC of ward/commune, through the hamlet/village head or direct to PC of ward/commune, in writing or words. Member of the PC or the hamlet/village header mentioned above must inform to PC of ward/commune on the complaint. PC of ward/commune will work personally with the impacted household and will have 5 days to resolve after receiving the complaint (into outback or the mountain, the complaint can be resolved within 15 days). PC Secretariat of ward / commune is responsible for preparing and storing records of all complaints that it handles...

When PC of ward/commune issues the decision, the household can appeal within 30 days. If the second decision has been issued and the household is still not satisfied with the decision, they can appeal to PC of The city...

The second level PC of The city: Upon receiving complaints from the household, PC The city will have 15 days (or 30 days for remote areas and mountains) after receiving the complaint to resolve the case. PC of the city is responsible for filing and storing documents on all the complaints that it handles.

> When PC The city issued a decision, regular household family can appeal within 30 days. If the second decision has been issued and the regular household is still not satisfied with the decision, they can appeal to the provincial PC.

The third level

PPC. Upon receiving complaints from the household, PPC will have 30 days (or 45 days for remote areas and mountains) after receiving the complaint to resolve the case. PPC is responsible for filing and storing documents for all complaints to be submitted.

When the PPC issued a decision, the household can appeal within 45 days. If the second decision has been issued and the regular household is still not satisfied with the decision, they can appeal to the court within 45 days. Meanwhile the provincial PC must pay compensation payment and an escrow account.

The forth level

The provincial Court. If the complainant files the complaint of the case to the court and the court decision backs on the side of complainant, the provincial government will have to increase the compensation to the extent that the court decided. In case the court back on the side of the provincial PC, the complainant will receive the funds was submitted to the court.

The decision to settle complaints will have to be sent to the complainant and the parties concerned and shall be publicly posted at the headquarters of the PC of level resolving the complaint. after 3 days having the decision/the result to resolve the complaint at the level of ward/commune/town and after 07 days at the levels of the district or province. To minimize the complaint to the provincial level, the PMU will cooperate with the compensation committee of the provincial level in order to participate and consult to solve an answer the complaint;

Personnel: Personnel of the environment and resettlement selected by PMU will design and maintain a database of the complaints relating to the project of the impacted households including the information such as the nature of the complaint, source and date of receipt of the complaint, the name and address of the complainants, actions need to perform, the current status.

For the complaints in words, Board of reception/mediator will record these requests in a complaint form at the first meeting with the affected persons/complainants.

The independent supervision consultant shall examine the procedures and the decision to settle complaints. The independent supervision consultant may recommend the additional measures to resolve any outstanding complaints. In the process of work relating to the tasks to check the procedure for resolving complaints and review the decision of resolving complaints and independent supervision consultant should closely coordinate with Vietnam Fatherland Front and the members of Front responsible for monitoring the implementation of the law on local complaints;

The process for resolving complaints of the process of the project requires the name and contact in detail of officials receiving and resolving complaints. The information will be disseminated through information leaflets and stickers in the offices of PC of communes, districts and PMU.

At the same time, to avoid the delay of the process of resolving the complaint, escrow account for the payment of resettlement should be used to ensure payment of compensation after the complaint has been resolved.

To ensure that the grievance mechanism described above is practical and acceptable to the affected person, the mechanism that has been in consultation with local authorities and community taking into account the specific cultural characteristics as well as the traditional cultural mechanisms in addressing complaints and resolving problems and conflicts. These objects and the efforts of the ethnic Minority well defined and decide ways culturally acceptable to figure out how to solve.

APPENDIX 6 - DISCLOSURE AND RESPONSIBILITIES FOR REPORTING TO THE PUBLIC AND SUPERVISION

1. Consultation and disclosure

The main objective of the disclosure and the public consultation is to ensure the participation of the affected community, family households, local governments, relevant organizations to share information about the project, Consultant for selection of technical options, expected impacts on land, income and assets on the land ... the disclosure is an important contribution in promoting the progress of the project during implementation, preparation, and when the project goes into operation with the agreement of the community, the project management unit. This will minimize the possibility of conflicts arising and other risks, increasing the efficiency of investment and social significance of the project.

The program of disclosure of information and the public consultation must ensure:

- The local authorities as well as representatives of the affected local residents will be involved in the preparation of the project and the process of decision-making. The project management unit will work closely with the communes/districts in the process of an implementation of the project. The involvement of the affected local residents in the of an implementation process will be continued by asking the communes/districts for inviting the representatives of the affected local resident to participate in members of the committees of compensation and land clearance and resettlement and to participate in part in the resettlement activities.
- Share all information on items and activities of the project as planned to the affected persons.
- Collect information about the needs and priorities of the impacted persons as well as receive their feedback on the proposed policy and activities.
- Ensure that the impacted persons can be fully informed decisions affecting directly to their income and life and they have the chacne/opportunities to participate in the social activities and decision-making on issues affecting directly to them.
- Ensure the transparency in all activities relating to land acquisition, compensation, resettlement and restoration.

For the World Bank, the persons impacted by the project need to be fully informed and must be consulted about resettlement and compensation plans. Consultation is the starting point for all activities relating to resettlement. The persons affected the resettlement may worry that they could be affected to their livelihoods and relations with community, or fear of not ensuring their interests. Being participated in planning and management of their resettlement helps them ease fears and bring the impacted persons the chances to be participated in decision-making affecting directly to their lives. The implementation of the resettlement without consultation may lead to an inappropriate strategy and ultimately ineffectiveness. Without the consultation, the impacted persons may react negatively to the project, causing the social difficulties, significantly slowing the completion of the target, or even ignored, and the cost will increase. Therefore, when there is consultation, the initial opposition of the project can be translated into constructive participating.

For Vietnam, the next important step in strengthening democracy at the grassroots level is Instruction No. 30-CT/TW of the Central Committee of the Communist Party of Vietnam "Construction and implementation of grassroots democracy", Decree 79/2003/ND-CP of the

Government promulgating the Regulation on the exercise of democracy in communes, wards, towns and then the Ordinance on the exercise of democracy in communes, wards and townships also issue present. The crux of this legislation is the famous slogan "people know, people discuss, people do and people check"; Ordinance 34/2007/PL-UBTVQH11 points out the what problems that the local government and community consult before the authorities make the decision; including setting the plan to compensate, to support for resettlement relating to the project, the works on the areas of ward/commune; Article 67, Paragraph 4, 2013 Land Act requires the disclosure the plans to compensate, support and resettle to the affected persons. Article 67, Clause 4, 2013 Land Law requires the information about the compensation, support and resettlement for the affected persons need to be disclosed publicly and let the affected persons know.

Thus, consultation and involvement is an innovation in the implementation of the project in Vietnam. This policy will recorrect the shortcomings in the process of deployment and implementation of the project, by both the local government, the local residents and persons implementing the project inexperienced in this field.

The following points should be noted in order to encourage the relevant sides to join the consultation process and in the project:

- Identify and attract all the relevant sides the, Especially the local resident living in the project areas, the impacted persons (men, women, the poor, ethnic minorities ...), to participate in the public constation;
- Develop strategies of participating in planning, implementation, monitoring and evaluation of the project.
- Set up the contents, subjects needing for the strategies to promote and announce the information, set up the procedure that the impacted persons can negociate about their rights and interests.
- Attracting the relevant sides in decision making in all processes of implementation of the project (eg the design plans, compensation methods, impacted person consultation, way of compensation, the schedule of implementation, etc..).
- Establish a schedule to complete the activities for example the campaign to provide information, the level and form of compensation, benefits, location and plan to relocate.
- Develop a schedule to complete the activities for example campaign to provide information, degree and methods to compensate, benefit, location, plan to relocate.
- Develop the procedure to resolve the complaint.

The public consultation also often need to be made with the unit setting up and designing the details of categories of the project This ensures the proposed design has the participation of the community and limits the negative impact to community. This also helps the project be friendly to the community and person using.

Consultations also should be carried out with the relevant sides, including the units responsible for managing, operating the works, ensuring that they are consulted and they has their comments about designs.

In the process of the construction, the owner of the project should announce on the means of mass media about the activities of construction and expected schedule, the measures to support the local resident affected and processes to acquire and feedback information from the

all sides of the community. Affected persons (APs) will be informed about the policies and procedures of the project to ensure their later life did not change much. Affected persons will be notified if they have any questions about the project, The project management unit can help solve.

Contents and form of consultation, disclosure of information

Information needs to be disclosed	Mode of consultation and disclosure	Time	Person to carry out
Information on Design plan and technical plan of sections	Meeting with the local government of ward/commune, relevant departments, unions, representatives of the impacted households.	The process of survey and design of the project.	·
Information on Land acquisition, land clearance and compensation.	Officials of ward/commune and PMU consult the impacted households to have the initial assessment. Develop the plans to revoke, compensate and negotiate with APs before submitting the authorities to make decisions. Disclose the policy and answer questions through meeting with APs.	Before of the implementation of the project	PC of commune, PMU
Information on schedule of implementation, mechanism of supervision and responsibility to report and explain.	Meeting with the population group, leaflet, poster placing in the public.	When starting the implementation and in the process of implementation	PMU, PC of commune
Information on recruiting and paying for the local labours	Three-party meeting with contractor, the local government/the supervision committee of ward and the local residents.	Before the construction	Contractor, the community supervision committee
Information on the potential negative impacts and measures to minimize.	Combine with activity 2 and activity 3 mentioned above	Before and in the process of implementation.	PMU, Contractor, PC of commune

2. Responsibilities to report to the public

The disclosure of information about the proposed plans of the project to the affected persons and the relevant sides in the public consultation and the process of field study of the Social Assessment Consultant is to provide a framework for public information a in the process of an implementation of the project. Moreover, as has been requested at all community meetings, the impacted persons want to have meetings to exchange information regularly with the project management unit at headquarters of PC of communes having the affected communities in the process of implementation of the project. So the report on Resettlement plan as well as the environment management plan needs to be able to perform the

responsibilities of project management unit in ensuring that the public receives the information regularly about the project.

In addition to regular meetings between the PMU and the affected communities in the headquater of PC of commune, the community meetings in all communes implementing the public consultation have to establish the close connections to facilitate to keep the contacts quickly and easily with the project management unit. The best way to make a tight connection is provide the phone numbers and addresses of the PMU responsible for all performance venues of construction of categories of the project and the headquarters of all communes having components of the project.

3. The participation in the supervision

To ensure the effectiveness of the components of the project, necessary to have a monitoring plan with the participation of the relevant sides for example the Department of Natural Resources and Environment, the Department of Construction, Department of Planning and Investment, The Department of the Transportation ... agencies, units directly managing, operating of the categories of the project after completion also need to be involved in the processs of designing and construction.

Along with independent supervision unit of the project, there should be a community supervion committee monitoring the activities of the project, particularly for activities relating to resettlement, the environment sanitation and construction of various items. Supervision department includes the representatives of leaders of local government, representatives of mass organizations such as Women's Union, Fatherland front, Veterans, Farmer union, representative of the local resident ... community monitoring unit cooperate with the independent monitoring unit of the project basing on social safety indicators will monitor activities of the project. Indicators of restoration of the life and production, indicators of the environment sanitary, the traffic will be developed to serve the monitoring plan of the project. Through practical grasp, community supervision department can promptly report the information relating to the progress of the project, the problems arising in the process of an implementation project in order to inform the PMU timely to resolve. The responsibilities of this department is to collect feedback of the local residents then submit to the authorities and the project management unit. At the same time the local residents is also involved in the process of supervision of construction, labour safety and the environment hygiene during all processes of construction.

Community supervision department should be set up a training plan to strengthen the ability of monitoring and evaluating the activities of the project. Skills in monitoring activities will be training directly for this division and are considered as part of the monitoring plan of the community participation supervision of the project.

Noting the application of Resolution 80 / CP on community supervision for construction works locally.

Note the application of Resolution No. 80/CP on community supervision for the construction in the local areas.