VINH PHUC DEPARTMENT OF PLANNING AND INVESTMENT

VINH PHUC PROVINCIAL ODA PROJECT MANAGEMENT UNIT

SOCIAL ASSESSMENT REPORT

Package: **Consulting Service of Preparing Social Assessment Report (SA) and Social Management Framework (SMF)**

Project: Vinh Phuc Flood Risk and Water Management Project

Client: Vinh Phuc Provincial ODA Project Management Unit

February 18, 2016

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ABBREVIATIONS

DONRE	Department of Natural Resources and Environment
EMP	Environmental Management Plan
FDI	Foreign Direct Investment
FS	Feasibility Study
FGD	Focus Group Discussion
FY	Financial Year
GoV	Government of Vietnam
IDA	International Development Association
MPI	Ministry of Planning and Investment
NGO	Non Governmental Organization
PAP	Project Affected Persons
PMU	Project Management Unit
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SA	Social Assessment
TORs	Terms of Reference
VDIC	Vietnam Development Information Center
VPFRWMP	Vinh Phuc Flood Risk and Water Management Project
WB	World Bank
WWTF	Wastewater Treatment Facilities

EXECUTIVE SUMMARY

The Vinh Phuc province is proposing a Flood Risk and Water Management Project (VP-FRWMP) to be financed by the World Bank. The project would focus on ensuring flood control in the central catchment of the province and halting the rapid deterioration of surface water quality. The project development objective will be achieved through: (i) supporting structure measures for flooding control and river rehabilitation; (ii) improving wastewater collection and treatment in districts small towns and rural villages; (iii) establishing water resource and water quality monitoring and flooding and emergency response system; and (iv) institutional development and training for the government departments and water sector practitioners aimed at managing the river basin and water related sectors in an integrated manner.

The proposed project consists of 3 components: Component 1 - Flood Risk Management; Component 2 - Water Environmental management; Component 3 - Project Implementation Support and Institutional Strengthening. Vinh Phuc ODA PMU is assigned to manage, organize and implement project preparation activities, including preparation of PO, FS and other social and environmental safeguard document in accordance with the World Bank's requirements.

This Social Assessment (SA) was conducted alongside the Environmental Assessments of the Project, and on the basis of the Feasibility Study. Its purpose was two-fold. First, it examined the potential subprojects positive and adverse impacts on the basis of planned project activities. Second, its findings informed the design for addressing identified potential adverse impacts and proposing community development activities, relevant to achieve the project's development goal. For identified adverse impacts that could not be avoided, consultation with local people, governmental agencies, project stakeholders, were carried out to ensure affected peoples will be appropriately compensated for, and supported in a manner that their socio-economic activities and livelihoods will be promptly and fully restored, at least, to the pre-project level. As part of the social assessment, when ethnic minority (EM) peoples presence was confirmed by the EM screening (as per Bank's OP 4.10), consultation with them were carried out in a free, prior, and informed manner, to corroborate if there is broad community support from affected EM peoples for the subproject implementation. EM screening was conducted as per Bank's OP 4.10, with the scope and coverage required vis-à-vis the environmental assessment (OP 4.01). A gender analysis was part of the SA to understand the underlying gender dimensions (from project impact perspective) to enable gender mainstreaming and promote gender equality, and enhance further the development effectiveness of the subproject, and the project as a whole. Depending on the magnitude of the identified potential project impact, and the project development objective, a gender action plan and monitoring plan were prepared.

A socio-economic survey in 21 communes/wards in 04 project basins was carried out with participation of total 965 surveyed household (about 3,770) people), including 330 beneficiary households and 635 affected households. The main socio-economic profile of local people is summarized as following:

- *Household Size*: the average number of inhabitants per household is 3.9 persons.
- *Ethnic Group*: The survey's results on ethnic groups showed that the project basins are occupied mainly by Kinh people, only some San Diu, Cao Lan ethnic households in Tam Dao district and Binh Xuyen under Component 2 and basin C of the project. Out of total 965 people interviewed, 96.6% were Kinh people and 3.4% were San Diu and Cao Lan people.

- *Occupation and Income*: Farming households took the highest proportion (60.3%); followed by those in trade/service/processing of agricultural products (8.9%), public servants accounted for 9.7% and those in other industries accounted for a small percentage. As a result, most of the households' average income is 4.45 million dong/household/month (or VND 1.14 million per capita per month)
- *Access to Public Facilities*. All (100%) of the surveyed people indicated that they are connected to the national power grid, while clean water supply is a critical issue, having most of the local people using water from drilled well, dug well, and/ or rain water for their daily activities.
- *Flooding*. About 71.6% of the SA's surveyed households responded that flooding affects seriously the locality, especially during the rainy season. Flooding occurrence is not as critical, in the EM localities because their sites residence is at the midland region, not so prone for flooding.

The SA result indicates that, the Project will generate positive environmental, social and economic impacts during the operational phase. This includes: (i) increasing flood drainage capacity, water storage capacity and regulating water for Phan and Ca Lo rivers while meeting water demands of the communes along these rivers; (ii) improving of ecological environment and forming the regulatory lakes, compatible with overall planning of urban construction of Vinh Phuc province until 2030 and envisioned to 2050; (iii) implementing step by step drainage solution planning for the entire Phan and Ca Lo river basin in Vinh Phuc; (iv) upgrading infrastructure of rivers, drainage channels in the event of heavy rain that are causing flooding and (iv) creating trust to attract FDIs infrastructure and connection with Trans-Asia route of Hanoi - Lao Cai, focusing on attracting investments into the development of Binh Xuyen, Ba Thien, Tam Duong Industrial Zones and inland ICD port.

Although, alternative designs were reviewed carefully, involuntary resettlement is inevitable. The project will cause some adverse social impacts which are inevitable. The project will have significant impacts on land acquisition and resettlement. An estimated 6.229 households would be affected as a result of the entire project. For the three Year-1 subproject, an estimated 1,969 households would be affected (both permanently and temporarily), of which 1,916 households would be affected permanently (952 of which will be losing more than 20% or more of their productive landholdings). For the remaining years-subprojects, an estimated 4,313 would be potentially affected households, of which 644 affected households would lose more than 20% or more of their productive landholdings. Resettlement Action Plans, including income restoration plans were prepared to mitigate these impacts of the 3 Year-1 subprojects .

Potential negative social impacts besides the land loss include : i) loss of livelihoods (e.g. reduced sources of income due to loss of agricultural land and temporary loss of income from fishing activities in Sau Vo, So, Nhi Hoang and Rung retention lakes); ii) impacts on vulnerable groups (i.e. women are more vulnerable to hardship due to loss of economic and social base due to land acquisition, relocation and loss of livelihood); iii) impacts on safety and health (e.g. potential social impacts on local communities include road and public safety during construction, spreading of HIV/AIDS during the construction period and disruption of communities and livelihoods during site clearance and construction).

These impacts will be mitigated through a number of plans and programs prepared for the Project:

- Resettlement Policy Framework

- Ethnic Minority Policy Framework
- Resettlement Action Plan;
- Ethnic Minority Development Plan
- Social Action Plan
- Gender Action and Monitoring Plan
- Community Health Action Plan
- Stakeholder Participation Plan

The PMU will be in charge of the implementation of these plans and programs and will ensure appropriate implementation in order to minimize negative impact to livelihood of local people, propose PMU to develop micro finance program, agricultural Extension Services and training course on business development skills for affected households. This social assessment will be updated during detailed design to take into account the possible changes in design.

Vinh Phuc, November 2015

I. INTRODUCTION

1.1 Background

Vinh Phuc is a land-locked province adjacent to Ha Noi. The provincial city, Vinh Yen, is about 60km North West of Ha Noi. Vinh Phuc is positioned in three key development regions of Vietnam: the Red River Delta Region, the Ha Noi Metropolitan Region, and the Northern Key Economic Region. Vinh Phuc has population of about 1 million (2013 data), 22,4% of the population live in the urban areas and 77,6% I the rural areas. Per capita GDP was VND 52 million in 2012, higher than the national level of VND 36 million. The provincial poverty incidence in 2012 was 7,3% (GSO, income based measures), lower than the national level of 11,1%.

Vinh Phuc experienced impressive economic growth in the last two and a half decades. It is now an industrial hub of the Red River Delta and one of the key FDI destinations in the country. By December 2012, the total active FDI was about 2.5 billion from some 150 active projects. Currently Vinh Phuc attracts USD 200-350 million FDI annually and almost half of the provincial GDP comes from FDI sector. Vinh Phuc is also one of the net contributors to the state budget in the country. The level of its public debt is insignificant and covers the period of 2006-2011, the average value borrowed of Vinh Phuc remained about just one percent of the local receipt.

Despite the fast economic growth, Vinh Phuc is facing a number of challenges, including frequent flooding, regional water pollution, lack of infrastructure and weak institutional capacity, which have become bottlenecks for Vinh Phuc to sustain its further growth. Due to its low elevation in the Red River flood plain, two third of the province is prone to flooding. There is an especially high risk from flooding in the areas of the Phan River basin where the provincial capacity city of Vinh Yen and most of FDI zones are located. Frequent floods have caused serious impacts on agriculture in rural areas, the city of Vinh Yen and the industrial zones and enterprises, including significant loss of agriculture and industrial productivity – impacting on livelihoods – and deterioration of infrastructure in both rural and urban areas. Initial estimates of the flood damage during the period 2006-2013 are about US$ 150 million, including significant agricultural production losses of around 30% of total crop values. Flooding also causes significant disruption to traffic in Vinh Yen City and several industrial zones. Health related costs are considerable.

Accelerated deterioration of water quality has been observed in Phan River catchment, including rivers and lakes around Vinh Yen City. Water pollution not only impact on public health locally, but also affects Vinh Phuc's medium long-term plans to foster service and tourism sectors as part of Metropolitan Ha Noi.

All these water related challenges need to be addressed by the PPC. However, there is a lack of capacity and affective and integrated management system to address these challenges. For example, water resource and water quality monitoring systems in the catchment are yet to be established, currently only DONRE has two automatic water quality monitoring station. There is no, or very limited, floods warning and emergency response system. These elements are critical to provide timely and accurate information to the government for decision making and emergency response, especially in addressing flooding and pollution incidents.

The provincial government is determined to address the flooding and water pollution challenges to its long term sustainable development, especially to (i) improve the agricultural productivity in the entire catchment; (ii) safeguard rural communities, Vinh Yen City and the economic development zones; and (iii) improve the investment environment for FDI. The central

government and Development Partners (DP) are working with Vinh Phuc to address these water related challenges. Government funded support includes some limited dredging works for the Phan River and the Vac Lake in Vinh Yen City, construction of number of small pumping stations to divert water from fields t the Phan River and pilot water pollution control in some villages in Phan River catchment. JICA has constructed a 5,000m3/day wastewater treatment plant and 34km of primary a secondary sewer in Vinh Yen City and plans to expand the second phase of an 8,000m3/day capacity wastewater treatment plants and related sewers. ADB has planned to help Vinh Phuc through Green Cities Project, including building the tertiary sewer and households' connections to JICA financed WWTP and rehabilitating 150ha of lakes in Vinh Yen City, including dredging and embankments. However, there are still critical gaps to address flooding in the province and water pollution in the Phan River catchment. The government has approached to the World Band for support to fill these gaps. The Project is to be named the Vinh Phuc Flood Risk and Water Management Project (VPFRWMP).

1.2 Objectives of the Project

The proposed project is to provide a sustainable water environment for the long term economic and social development of Vinh Phuc Province. In particular, the project would focus on ensuring flood control in the central catchment of the province and halting the rapid deterioration of surface water quality. The project development objective will be achieved through (i) supporting structure measures for flooding control and river rehabilitation; (ii) improving wastewater collection and treatment in districts small towns and rural villages; (iii) establishing water resource and water quality monitoring and flooding and emergency response system; and (iv) institutional development and training for the government departments and water sector practitioners aimed at managing the river basin and water related sectors in an integrated manner.

1.3 Components of the Project

The components of the Vinh Phuc Flood Risk and Water Management Project (VPFWMP) and cost estimate are presented as following:

Table 1 – Components of VP-FRWMP

Component	Activity	Investment (mill. US$)
Component 1	Flood Risk Management	110.00
Component 2	Water Environmental management	23.00
Component 3	Project Implementation Support and Institutional Strengthening	17.00
	TOTAL	**150,00**

Component 1 includes support for structural flooding measures in the basin B1, B2 and B3 as well as in catchment C; and structural improvements related to water management in the Phan River and three rivers in Basin B and C. Details are given below:

- Basin B1: (i) construction of Kim Xa pumping station, with a capacity of 45m3/s; (ii) dredging an area of about 100ha in Nhi Hoang and So retention lakes; (iii) rehabilitation of Yen Lap flooding control gate; and (iv) sludge disposal site;

- Basin B2: (i) construction of Ngu Kien pumping station, with a capacity of 45m3/s, including about 2km of outlet canal to the Red River; (ii) dredging an area of about 150ha in Rung retention lake; (ii) dredging 3km of canal connecting Rung retention land and Phan River; (iv) dredging a length of about 11km of Phan River (Thuong Lap-Lac Y); and (iv) gathering areas;
- Basis B3: (i) construction of Nguyet Duc pumping station capacity of 75m3/s including about 3km of inlet canal connecting to Sau Vo lake, and about 3km of outlet canal to Red River; (ii) dredging an area of about 200ha in Sau Vo lake; (iii) dredging a length of about 3.5km of Phan River (Lac Y- Sat bridge); and (iv) operation road with a length of 6km and Dong Mong sludge disposal site; and
- Basin C: (i) construction of 02 flood control gates (Ton and Sat bridges) and associated embankments along the two rivers, and (ii) dredging 3 rivers with a total length of about 66km.

Component 2 includes support for wastewater collection and treatment system in the towns and rural villages along the Phan River, including:

- Wastewater management for towns: construction of small scale wastewater collection and treatment facilities in 4 towns, with each facility capable of serving about 15,000 - 25,000 existing people;
- Wastewater management for rural communities: Survey conditions (to determine location, population, population, forecast incurred wastewater, pollution of rivers, canals, springs and drains) to village/hamlet/residential areas along Phan river. On the basis of survey results, the construction of 50 small-sized wastewater collection and treatment schemes will be proposed. Each scheme is capable to serve a minimum of 500 people.
- It is required to note that on the preliminary survey results, Consultant will propose appropriate measures for investment items of this Component.

Component 3, includes (i) consulting services and activities supporting project implementation; (ii) water resource and flooding early warning and emergency response; and (iii) institutional development and capacity building for government departments and water sector practitioners to support them to manage the river basin and water related sectors in an integrated manner.

1.4 Social Assessment

❖ ***Objectives of Social Assessment***

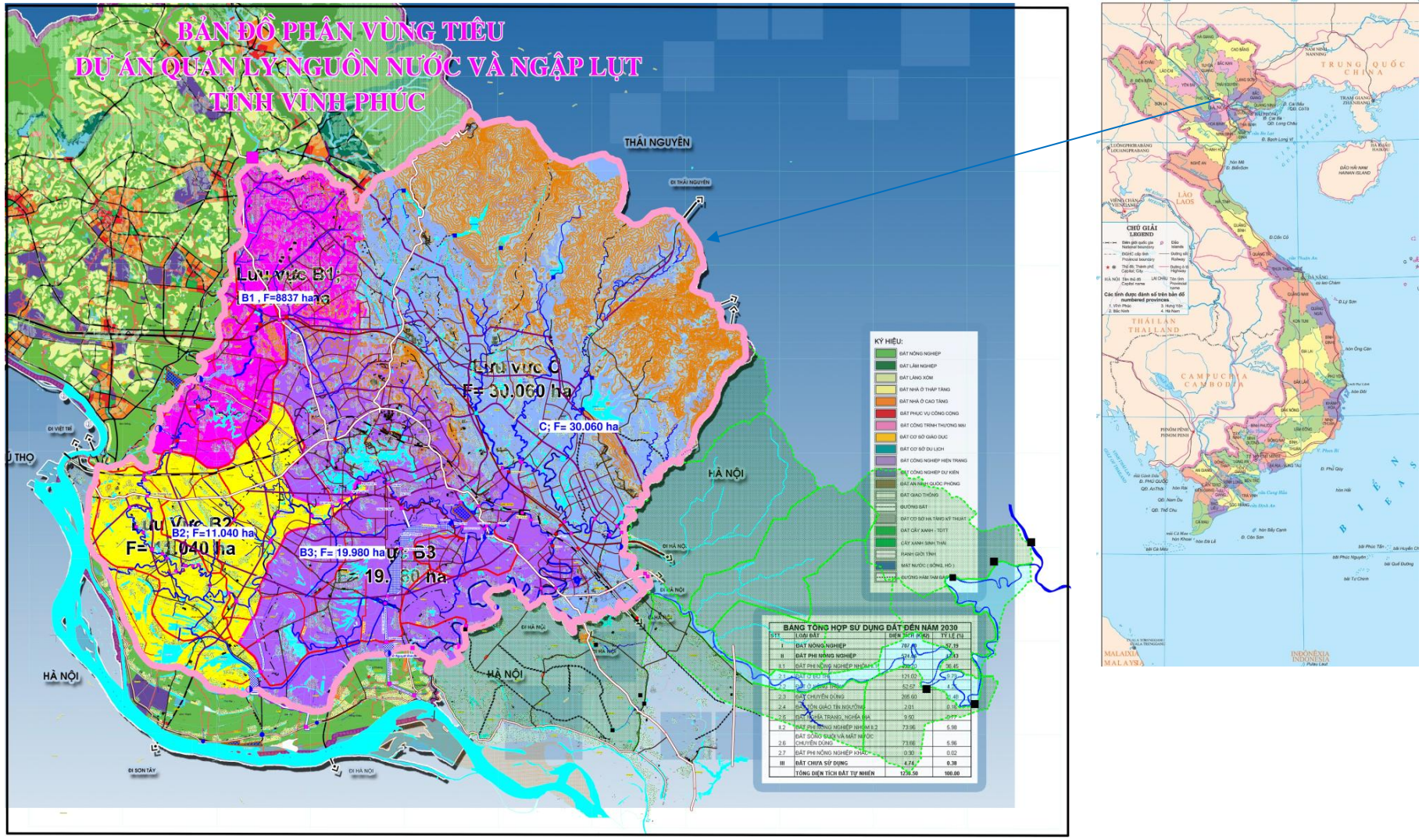
Social problems arise, among others largely due to conflict between economic development and natural resources depletion. Economic losses and social costs from environment degradation often occur long after economic benefit of development has been realized. A social assessment helps in understanding, minimizing and addressing social impacts. This SA involves a process for the project proposed to: understand how socio-cultural, institutional, historical and political contexts influence the social development outcomes of the project proposed investments; (ii) enhance equity, strengthen social inclusion and cohesion, promote transparency and empower the poor and the vulnerable in the project design and implementation of the project; (iii) create mechanisms to identify the opportunities, constraints, impacts and social risks associated with the proposed project design; (iv) set up a framework for dialogue on development priorities among social groups and grassroots organizations and other project stakeholders; and (v) identify and mitigate and compensated when required the potential adverse social impacts as a result of the project .

The social assessment (SA) covers the social aspects of both potential positive and negative impacts of the project's proposed activities. The SA will identify social impacts, to put in place suitable institutional, organizational and project specific mechanisms to mitigate the adverse effects These include among others aspects are related to involuntary resettlement, gender, indigenous peoples public health, and requirements to ensure public consultation, participation and communication of the affected population. The assignment undertakes relevant laws and policies of the Government of Vietnam and safeguard policies of the World Bank OP 4.12 and OP 4.10.

❖ ***The Project Area of Influence***

The project is implemented in 7 districts/cities of Vinh Phuc, including: Binh Xuyen, Vinh Tuong, Yen Lac, Tam Dao, Dam Duong districts, Phuc Yen town and Vinh Yen city. The layout of the project area is presented as picture bellowed:

Figure 1: The Project Area of Influence



II. METHODOLOGY

This Social Assessment (SA) was conducted alongside the Environmental Assessments of the Project, and on the basis of the project's Feasibility Study. Its purpose was two-fold. First, it examined the potential impacts of the subproject positive and adverse impact on the basis of planned project activities. Second, its findings informed the design of measures addressing identified potential adverse impact and proposing community development activities that are relevant to the project development goal. For identified adverse impact that could not be avoided, consultation with local people, governmental agencies, project stakeholders, etc., were carried out to ensure affected peoples demands and compensation are supported in a manner that their socio-economic activities will be promptly and fully restored to the pre-project level, at least, and that their livelihoods will not be worsen off, in the long run, as a result of the subproject.

As part of the social assessment, where ethnic minority (EM) peoples are present in the subproject area as confirmed by the EM screening (as per Bank's OP 4.10), consultation with them were carried out in a free, prior, and informed manner, to confirm if there is broad community support from affected EM peoples for the subproject implementation. EM screening was conducted as per Bank's OP 4.10, and was done the scope and coverage of the social assessment vis-à-vis the environmental assessment (OP 4.01). A gender analysis was also done as part of the SA to understand underlying gender dimensions (from project impact's perspective) to enable gender mainstreaming to promote gender equality, and enhance further the development effectiveness of the subproject, and the project as a whole. Depending on the magnitude of the identified potential project impact, and the project development objective, a gender action plan and gender monitoring plan were prepared (please see these plans in the Appendix 4 of this SA)

2.1. Screening of Ethnic Minorities:

The purpose of screening for EM peoples is to determine if EM peoples – as per OP 4.10, are present in the project area. If EM people are present in the project area, OP 4.10 will be triggered and an EMPF will be prepared to guide the preparation of the EMDP for subprojects during both preparation and implantation.

2.2. Data Collection and Survey Processing

After above mentioned screening, a survey approach/ frame and methodology were discussed to determine the appropriated sample size, and data collection technique/ method. Two main survey techniques selected, included the following: (i) through templates/ forms applied among authorities of the project wards/communes; (ii) a stratified sampling survey among the households' on their socio-economic information.

Collection of Secondary Data

Sources of information and project-related data collected included by the Vinh Phuc ODA PMU, and from other local socio-economic analysis as the Vinh Phuc Statistic Yearbook, the Socio-economic Reports of the province/district/communes, and the poverty analysis regarding ethnic groups.

Quantitative Research

A socioeconomic survey was conducted to understand the profile of the people in the project area – both affected households and beneficiaries.

The socio-economic survey was carried out within 3 weeks from 10 August to 28 August. Sample size include **965 households** who are consulted through a questionnaire covering 21 wards of 7 the project districts of Vinh Phuc province. Table 2.1 bellow shows the number of households participating in the mentioned surveyed:

- *Local authorities*: Representatives of departments and sectors in the project area in the districts, wards/communes.
- *Households*: Beneficiaries, vulnerable households, ethnic minority households, households at risk of being affected by the project, sampling households with different living standards...

***Table 2.* 1 No. of Surveyed Households at The Project Basins**

Basins	*District/city*	*No. of surveyed HHs*		*Total*
		Beneficiary HH	*Affected HH*	
C	2	53	108	161
B3	3	90	178	268
B2	2	90	179	269
B1	2	57	112	169
Component 2	4	40	58	98
Total		330	635	965

(Source: Socio-economic survey, August 2015)

Qualitative research was conducted through in-depth interviews. The sample size was 246 key informants. These include: a) leader of population group/chief of villages, b) leaders of Ward/commune People's Committee, c) Agriculture extension officials, d) head of medical stations, e) women's union, f) households located in the project area (including the affected households and beneficiary households), and g) affected and beneficiaries households. Local people's opinions and expectations in the project area were collected to, address potential conflicts and define actions to mitigate impacts of the project addressing the peoples 'consulted/ interviewed

In addition, 21 focused group discussions (including 172 peoples) and community meetings (including 392people) were carried out. These consisted on representatives from social unions of villages/hamlets and vulnerable households, ethnic minority households, household-headed women. The group discussions were focused on issues relating to household's living conditions, occupation, accessibility to public service infrastructures, health care, traffic, climate change, among others.

Broad community support for EM is carefully considered and the development of EMDP/EMDF/SA are son the basis of on free, prior, and informed consultation as per OP 4.10.

The following techniques were used to solicit the feedbacks of the EM peoples, including group discussions, participant observations, and community meetings. The consultant team is aware of the comfort that needs to be maintained with regards to use of language on the part of EM peoples. As such, before the consultation, check was made to ensure the consulted EM peoples have a preference for the language to be used during the consultation exercise. To

ensure language comfort for the EM consulted, each EM groups were consulted separately. A local person (of the same EM group) were invited to join the consultation just in case local EM language is required to promote the free exchange of information between the EM peoples, and the consultant team. The representatives' participated ethnic HHs in the consultation meeting can use fluently Viet language. It should be noted that the person who led the consultation process and interview has extensive experience back grounds with EM peoples. Discussions with the EM communities are conducted at the cultural houses of the hamlets. These meetings are informed beforehand to the affected communities.

The consultation with them was carried out in a free, prior, and informed manner. Consultation outcome indicated that there is broad community support from affected EM peoples for the subproject implementation because most project activities are beneficiary to local EM people. Only some minor and temporary impact could take places. The impact will be confirmed during the detailed design stage. Adverse impacts, if any, will be addressed as per project EMDF.

2.3. Public Consultations

Developing and implementing an effective public participation plan to involve all interested and affected stakeholders is vital for the project. This involves identifying the population that will either benefit or be adversely affected by the project. Public participation techniques for collecting information about public response to proposed project investments, throughout the implementation and monitoring are required. During this preparation phase, 21 public consultations in 21 wards/communes were carried involving the participation of the following stakeholders:

- Local authorities, representatives from 21 communes
- Mass organizations, including Fatherland Front (21 persons), Women's Union (25 persons), Youth Union (21 persons), Farmers' Union (28 persons), Veterans' Union (21 persons) of 21 selected wards/ communes. Households in the project area t. These included households with potential land to be acquired, beneficiary households (965 HH, in which 330 beneficiary households and 635 affected households), vulnerable affected such as, households with the disabled members (20 households), ethnic minority households (35 households).

Issues discussed during public consultation include: (i) Introduction of the components and items of the project; (ii) Overview of local socio-economic situation of project ward/communes; (iii) The status of infrastructure of residential areas, including technical infrastructure and social infrastructure, like electricity, roads, schools and health stations; (iv) Demand for investment in construction and renovation of the local infrastructure, and (v) Screening/Assessment of potential impacts may be occur in construction time (partial and temporary flooding in nearby area, limited access to fishing revenue...) and these impact may be effect on socio-economic, culture of people in the project area.

III. KEY FINDINGS OF SOCIAL ASSESSMENT

3.1 *Socio-Economic Profile of the Project Area*

3.1.1. Overview of Vinh Phuc province

a. Natural and Socio-economic Conditions

❖ ***Natural Conditions***

Geographical location*:*

Vinh Phuc is located in the Red River Delta belonging to the Northern midland and mountainous region, with co-ordinates: from 21°08' (Dao Tru Commune, Tam Dao District) to 21°19' North latitude (Trang Viet Commune, Me Linh district, Hanoi), and from 105°109' (Bach Luu Commune, Song Lo District) to 105°47' East longitude (Ngoc Thanh Commune, Phuc Yen Town).

Natural area is 1,231.76 km2 (as at 31 December 2008) and population is 1,014,488 people including 9 administrative units: Vinh Yen city, Phuc Yen Town and 7 Districts (Lap Thach, Song Lo, Tam Duong, Binh Xuyen, Tam Dao, Vinh Tuong, Yen Lac), comprising 112 communes, 25 of wards and towns located in the Red river delta region, in the middle of Vietnam's North and the transitional area between the mountainous and delta regions. Therefore, Vinh Phuc has 3 ecological regions, including the delta region in the South, midland in the North and mountainous region in Tam Dao district.

- It borders Thai Nguyen and Tuyen Quang provinces to the North, the boundary line is Tam Dao mountainous range.
- It borders Phu Tho province to the West, natural boundary is Lo river.
- It borders Ha Noi to the South, natural boundary is the Red river.
- Its borders Soc Son and Dong Anh districts to the East.

❖ ***Socio-economic Conditions***

At the 10th session of 9th National Assembly, the reestablishment of Vinh Phuc province was passed by the Resolution dated 26 November 1996[1]. Since the re-establishment, GDP of the province increases quickly, average GDP growth rate for the period 1998-2000 was at 18.12%,

[1] In the past, Vinh Phu province consisted of two parts including (1) Phu Tho and (2) Vinh Phuc, then, in 1996 this province was divided and separated into two province., namely Vinh Phuc and Phu Tho

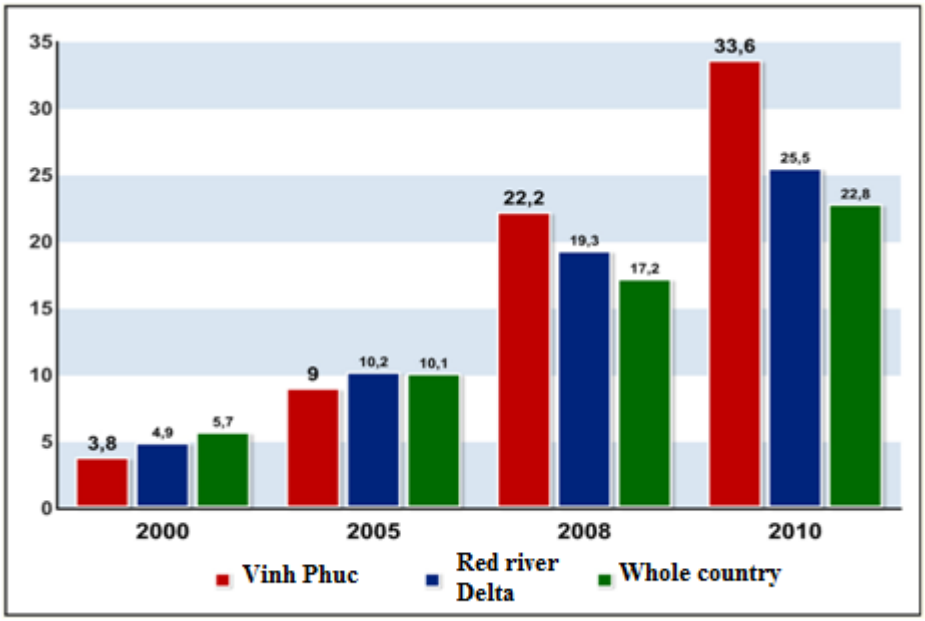
thanks to strong increasing development of industrial parks, especially foreign direct investment (FDI) areas.

Growth rate: the growth rate always ranks high among the Red River Delta Region and the Northern Key Economic Region. In the period 2006-2010, the growth rate of Vinh Phuc province reached 15.6% per year while the growth rate of whole country in the same period, reached 6.9-7% per year. Vinh Phuc province has the highest growth rate in the Northern Region. It if followed by Quang Ninh, 13.3% per year, Bac Ninh, 15.2% per year, Hai Duong 11% per year, Hung Yen 14.1% per year and Hai Phong 13.2% per year.

Regarding GDP per capita: Along with the rapid growth of the economy, GDP per capita in the province is also increasing rapidly. The average growth rate is 26% per year by 2020, reaching VND 28.5 million/person, equivalent to US$ 1,550-1,600, higher than the national average rate (reached $ 1,220 / person by 2010) and ranked into the forth position in the Northern key economic zone, followed by Ha Noi, Hai Phong (1.800-1.900 US$/person) and Quang Ninh (1,757 US$/person).

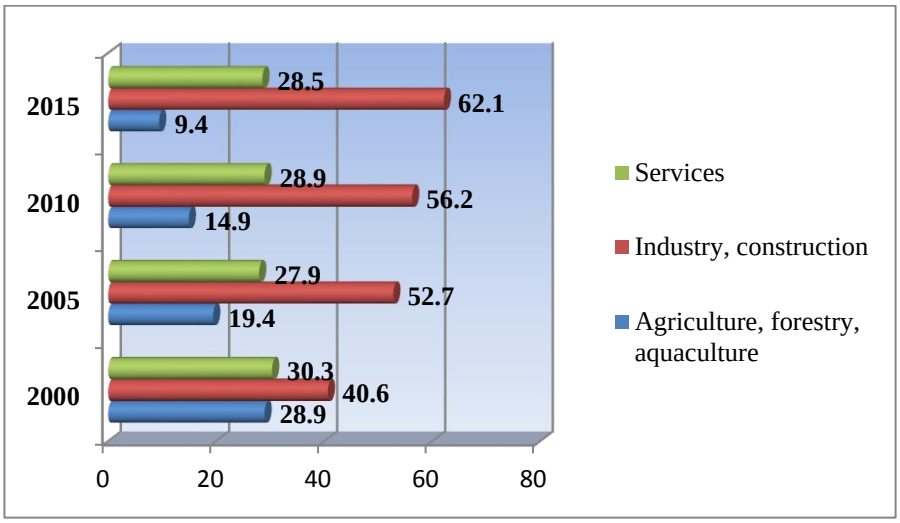
Figure 2: GDP per Capita Of Vinh Phuc Province Compared With The Whole Country And The Red River Delta Region

Unit: Million dong, Current Price



Source: Department of Local and Territorial Economy – MPI, 2009

Figure 3: Chart of Economic Structure of Vinh Phuc Province



Economic restructuring: In the period 2001-2005, the economic structure of Vinh Phuc province transits rapidly: The proportion of industry and construction in GDP increased from 40.68% in 2000 to 62.1% in 2015

In the period 2001-2005, the economic structure of Vinh Phuc province transited rapidly: the proportion of industry and construction in GDP increased 12.01% (from 40.68% in 2000 to 52.69% in 2005.

❖ ***Industry – Construction[2]:***

- Industrial production in Vinh Phuc province have undergone a steady development, enterprises have been actively seeking and expanding markets for consumption of products produced such as car, motorbike... The index of industrial production (IIP) in the province increased by 10.60% over the same period (2001-2005).

- In the first eight months of 2015, the industrial production index increased by 4.56%. In particular, the mining sector increased by 22.45%; processing and manufacturing sectors increased by 4.54%; production and distribution sectors of electricity, gas, hot water, steam and air conditioners increased by 14.51%; water supply sector, waste management and treatment sector deceased by 2.29%, compared to the first eight months of 2014.

- Trade and services in the province in the first six months of 2015 were stable, the volume of commodities and consumption services were guaranteed to meet the needs of production and consumption of the local society.

❖ ***Services*** [3]

- ***Agriculture – Forestry – Aquaculture*** Structure of this sector also transits and agriculture – forestry – aquaculture sectors have been reducing from 14.9% in 2010 to 9.4% in 2015 (as the total % of productive activities)

- ***Population and Labor***

[2] Report No. 402/BC-CTK, dated 21 August 2015 on socio-economic situation in the first 8 months of 2015 by Statistical Office of Vinh Phuc

[3] Report No. 402/BC-CTK, dated 21 August 2015 on socio-economic situation in the first 8 months of 2015 by Statistical Office of Vinh Phuc

Income and livelihood of the people in Vinh Phuc province in recent years has gradually improved. According to the investigation by the General Statistics Office of Vietnam Living Standards, Vinh Phuc province in areas with growth rate of per capita income is high. In the period 2001 - 2005, per capita income increased at an average rate of 13.8% / year versus 6.05% of the country during the same period. The poverty rate in the province has decreased from 18.3% (according to the new national standards) in 2005 to 6% in 2010 and about 3% in 2014.

Table 3.1: Population And Population Density In The Project Area

Items	Whole province	Binh Xuyen	Vinh Tuong	Yen Lac	Phuc Yen	Vinh Yen	Tam Dao	Tam Duong
Area *km2*	123752,31	14847,31	14401,55	10767,4	12013,05	5081,27	23478,31	10821,44
Density	842	766	1357	1397	803	2000	307	911
Population	1,041,936	255,728	119,158	91,000	134,630	164,940	116,110	126,069
- Male	512,384	56,333	96,044	74,146	46,425	49,815	35,580	64,330
- Female	529,552	57,436	99,359	76,223	50,034	51,829	36,429	50,454
Urban population	242,921	35,906	20,509	14,216	58,617	85,980	745	10,245
No. of HHs	250,729	39,011	24,191	19,256	12,472	37,628	24,587	26,885

Source: Vinh Phuc Statistical Yearbook, 2014

b. Infrastructure Conditions

❖ *Transportation System*

Vinh Phuc's transportation network is quite developed with three categories: roads, railways, waterways. Basically, the transportation system of Vinh Phuc province, especially national highway, waterway, provincial roads have improved in recent years. However, some domestic roads such as inter-communes roads, inter-hamlet/residential roads are been downgraded in the Tam Dao district (Ho Son and Minh Quang) and Yen Lac (Tam Hong commune, Van Xuan commune), because of long time operation.

Water Supply

Recently, the Vinh Phuc province was equipped with the Vinh Yen potable water supply factory with capacity of 16.000 m3/ day and night; Phuc Yen water plant with a capacity of 12,000 m3/day and night. In addition to the above plants, there are small water supply projects in the Tam Dao town (capacity of 5,000 m3 per day-night), Yen Lac, Lap Thach and Vinh Tuong town with a capacity of 3,000 m3 per day-night.

In general, water supply system meets the demand of local people for both daily activities and manufacturing activities.

❖ *Electricity Supply*

In recent years, in order to meet the demands of the socio economic development, the province and Vietnam's General Electric Company had made great efforts in seeking the investment capital in grid development in the Vinh Phuc province. Quality of electricity supply has been significantly improved: the problem and number of power cuts to repairing had been decreased. Currently, electricity supply systems in Vinh Phuc province is good, stable and meeting the demand of living population and manufacturing activities

❖ ***Wastewater Drainage and Treatment***

Currently, investments are wastewater and drainage systems in Vinh Phuc have not been systematic. The existing works are small, scattered, patched and just locally invested. In recent years, the province was supported by JICA funding to construct some wastewater treatments in Vinh Yen and Phuc Yen, but many other rural district area is not invested. Waste water are treated locally by households' septic tank systems, then discharged directly into the storm water and wastewater drainage system, without treatment.

In conclusion, waste water treatment system does not meet the demand of Vinh Phuc development, thus, the component 2 of this Project will carry out constructing 10 waste water treatment stations in town/communes in Vinh Phuc

c. Orientation of Socio-economic Development of Vinh Phuc Province Through The Period 2020 - 2030[4]

❖ ***Development Viewpoints, Objectives and Methods***

Development Visions of Vinh Phuc Province: (i) Overall development; take the quick, effective and stable development (including economic, social and environmental effects; also ensuring the immediate and long-term effects) as a basis to head to increasing and improving the living of people community; (ii) Develop Vinh Phuc's Economy with the rational step and by strongly promoting industrialization in the period up to 2020; (iii) Strongly promote development in an open way and aim at having international integration based on focusing on exploiting domestic market; increase inner power and competitive capacity of the economy on the international market as well as domestic market; (iv) Economic development is associated with social development, building a democratic and civilization society. Notice to develop the countryside area, less developed area, minimize the gap in living standards between residential areas and ensure that all people have convenient access to the social services; (v) Combining developing economy and strengthening national defense, politics security, maintain social order and security; and (vi) Economic development associated with environmental protection and sustainable development not only for provincial territory but also the area of related provinces and cities, heading to form an environmental cleaning and green city in the end of 2020s, and beginning of 2030s.

Socio-Economic Development Objectives Up To 2020 accordingly the socio-economic development master plan of Vinh Phuc province up to 20202 and vision to 2030, prepared by Vinh Phuc PPC, dated March, 2011.

Overall objectives: Up to 2015, to build Vinh Phuc province to become a province that has all basic factors of an industrial province. Up to 2020, Vinh Phuc will become an industrial province, is one of the tourism, industrial and service centers of the region and of the entire country; increase clearly people's living standards; environment is protected stably; firmly secure national defense

[4] The socio-economic development master plan of Vinh Phuc province up to 20202 and vision to 2030, prepared by Vinh Phuc PPC, dated March, 2011.

and security; heading to become Vinh Phuc City in the year of 20s of the 21st century.

Specific objectives

❖ ***Economic Development Objectives***

- The average annual GOP growth rate will reach 14-15% during 2011-2020, of which:
  + Period 2011 – 2015: 14.0-15.0%.
  + Period 2016 – 2020: 14.0-14.5%.
- Economic restructuring will be carried out along the line of quickly increasing the proportions of industry, construction and services; to prioritize the development of industries with high-quality goods, modern technology and high productivity. And the economic structure in the period 2011 – 2020 assures the increase of proportion of services sector, sustainable development and conformity with the province's potential.
- The economic structure at actual prices to 2015 is expected as: the proportions of industry and construction; the services; and the agriculture, forestry and fishery will be 61%-62%; 31-32%; and 6.5 – 7%. The forecasted proportions of these sectors will be respectively 58-60%; 38%; and 3-4% by 2020.
- Per-capita GDP (by actual prices) to 2015 will reach USD 3,500-4,000, to USD 6,500 – 7,000 by 2020.
- To strongly develop foreign trade and boost export at an average growth rate of about 30% during 2011 – 2020 by 2020, export turnover will reach USD 13,5 billion.
- To increase social and development investment capital to VND 140-145 trillion during 2011-2015 and VDN 280-300 trillion during 2016-2020.

❖ ***Social Development***

- To develop a healthy and stable society to create substantial and comprehensive changes in education and training are needed; as to attach importance to training in occupations to meet the province's socio-economic development demand; and increase the rate of trained labor to about 66% by 2015, and to about 75% by 2020.
- All communes and wards will reach national health standards;
- To reduce the under-5 child malnutrition rate to below 5%; to reduce the annual birth rate about 0.15% and the natural population growth rate to below 1%.
- By 2020, to basically have no poor households by current national standard.

❖ ***Economic Development Options***

In long-term potentials, with changing environment, the Socio-Economic Development of the whole country, the region as well as the provinces will happen under various scenes. The difference of those scenes is at the time remedy from economic depression (due to the effects of global economic crisis), the mobilization, and arrangement of other resources. The selected socio-economic development option for the period up to 2020 is taking the sustainable development goals, establish the basic premise of industrialization and modernization as the basis for the allocation of social-economic development of Vinh Phuc Province in the period up to 2020. The positive property of this option is that striving for early recovery and sustained growth, approach to the fast growing option; The reliable property is that obtaining sustainable development goals as a basis. According to this option, Vinh Phuc's economy would have big

movements ahead of the level of development of the Northern key economic region, with not much demands for the mobilization of resources, it is possible.

3.1.2. Result of Socio-Economic survey

3.1.2.1. Demographic and Ethnic Profile of the Population

For the SA a socio-economic survey in 21 communes/wards in 04 sub-project basins was carried out with the participation of a total of 965 surveyed households, in which 330 beneficiary households and 635 affected households. The average number of inhabitants per household was 3.9 persons. Based size of each basin, ratio of questionnaire sampling in each basin is different.

Table 3. 1: Surveyed households in basins

Basins	*Town/District*	*Ward/commune*	*Surveyed household*		*Total*
			Beneficiary households	*Affected household*	
C	Binh Xuyen	Tam Hop	20	46	66
		Son Loi	18	32	50
	.Phuc Yen	Nam Viem	15	30	45
	Total		53	108	161
B3	Yen Lac	Bình Dinh	12	24	36
		Nguyệt Đức	22	44	66
		Yên Phương	12	24	36
	Bình Xuyên	Hương Canh	10	18	28
		Tân Phong	12	31	43
	Vinh Yen	Tranh Trù	19	40	59
	Total		90	178	268
B2	Vĩnh Tường	Thượng Trưng	14	30	44
		Vân Xuân	18	35	53
		Vĩnh Ninh	19	39	58
		Ngũ Kiên	20	40	60
		TT.Tứ Trưng	10	20	30
		TT.Thổ Tang	9	15	24
	Total		90	179	269
B1	Tam Dương	Hoàng Đan	20	36	56
		Hoàng Lâu	14	26	40
	Vĩnh Tường	Kim Xá	17	37	54
		Yên Lập	6	13	19
	Total		57	112	169
Component 2	Tam Đảo	Hợp Châu	12	16	28
	Bình Xuyên	Hương Canh	11	18	29
	Yên Lạc	TT Yên Lạc	10	13	23

Basins	*Town/District*	*Ward/commune*	*Surveyed household*		*Total*
			Beneficiary households	*Affected household*	
	Vĩnh Tường	TT. Thổ Tang	7	11	18
	Total		40	58	98
Total surveyed households			330	635	965

Gender of Respondents

In this socio-economic survey, the participation percentage of women was a little bit less than man, out of 965 participants interviewed only 356 respondents were female (36.9 %)[5], the majority of respondents were male, accounting for 63.1%.

The survey also showed that women in project areas have good awareness of the socio-economic issues and participated very actively in activities in the local community, the position of the woman has been changed and raised higher. In the recent years, due to support of Women's Union's, participation has increased in community meetings. Local women, more proactively are participating with decision making in both domestic family (expenditure and savings for their family, education and job of their children) and community social issues (discuss on technical option for proposed works). The gender of the respondents in the SA survey in each basin is detailed in the table below:

Table 3.2. Gender of respondent

Gender of respondent		**Basins surveyed**					**Total**
		C	**B3**	**B2**	**B1**	**Comp 2**	
Male	Quantity	110	155	165	112	67	609
	Rate (%)	68.3%	57.8%	61.3%	66.3%	68.4%	63.1%
Female	Quantity	51	113	104	57	31	356
	Rate (%)	31.7%	42.2%	38.7%	33.7%	31.6%	36.9%
Total	Quantity	161	268	269	169	98	965
	Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-Economic Survey, 08/2015)

Age of Respondents

As group age of people is an important variable to represent opinions, the age of the participants surveyed in the project basins is as follows:

Table 3.3. Age of Respondent

Content	**Basins surveyed**					**Total**
	C	**B3**	**B2**	**B1**	**Comp 2**	

[5] In fact, in process of questionnaire survey both husband and wife participated in answering questionnaire, but husband who mainly is HH's owner often signed and named in questionnaire sample, thus ratio of surveyed male is higher than female.

Content			Basins surveyed					Total
			C	B3	B2	B1	Comp 2	
Age range of respondent	18- 25 years old	Quantity	2	4	3	0	0	9
		Rate (%)	1.2%	1.5%	1.1%	0%	0%	0.9%
	26-35 years old	Quantity	7	2	8	3	0	20
		Rate (%)	4.3%	0.7%	3.0%	1.8%	0%	2.1%
	36-45 years old	Quantity	17	34	26	7	14	98
		Rate (%)	10.6%	12.7%	9.7%	4.1%	14.3%	10.2%
	46-55 years old	Quantity	57	83	109	91	21	361
		Rate (%)	35.4%	31.0%	40.5%	53.8%	21.4%	37.4%
	55-65 years old	Quantity	49	113	96	46	53	357
		Rate (%)	30.4%	42.2%	35.7%	27.2%	54.1%	37%
	> 65 years old	Quantity	29	32	27	22	10	120
		Rate (%)	18%	11.9%	10%	13%	10.2%	12.4%
Total		Quantity	161	268	269	169	98	965
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015)

The survey result showed that the age of the participants surveyed is mostly from 46 to 65 years old (accounting for 74.4%); followed by 65 years old group (12.4%), 26 to 45 years old group (12.3%), 18-25 years old group accounting for only a very small proportion (0.9%).

This shows that participants surveyed in the basins are mostly household heads or elders in the family. These are mostly the people who are decision makers in the family on key issues of the family, on the capability and willingness to join project activities in the locality.

Relationship of Respondents with Household Head

The survey results showed that participants interviewed were mainly the household heads (71.6%), in which B1 and BC are the basins having the highest proportion of household heads joining the survey (82.2% and 72.7% respectively). In other Basins, the participation proportion of household heads was slightly less than that of the two mentioned basins, their wife/husband and those in close relationship with the household head joined together in the interview instead. The relationship between the surveyed respondent and household head in each basin is detailed in the table below:

Table 3.4. Relationship with household head

Content			Basins Surveyed					Total
			C	B3	B2	B1	Comp 2	
Relationship with	Household head	Quantity	117	190	184	139	61	691
		Rate (%)	72.7%	70.9%	68.4%	82.2%	62.2%	71.6%
	Wife/husband	Quantity	43	53	58	24	24	202
		Rate (%)	26.7%	19.8%	21.6%	14.2%	24.5%	20.9%

Content			Basins Surveyed					Total
			C	B3	B2	B1	Comp 2	
Household Head	Offspring	Quantity	1	9	10	6	3	29
		Rate (%)	0.6%	3.4%	3.7%	3.6%	3.1%	3.0%
	Parent	Quantity	0	16	17	0	9	42
		Rate (%)	0%	6.0%	6.3%	0.0%	9.2%	4.4%
	Grandparent	Quantity	0	0	0	0	1	1
		Rate (%)	0 %	0 %	0 %	0 %	1%	0.1%
Total		Quantity	161	268	269	169	98	965
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015)

Household Size

According to result collected from 965 households with 3,770 inhabitants, the average number of inhabitants per household was 3.9 persons. The survey result showed that the household size in the project area is medium, while the number of households having between 3-4 persons took the highest proportion (68%); 1 or 2 person households accounted for 7.9% are considered minor/vulnerable households with mainly the elderly. The number of households with five or more persons accounted for 24.1%. The largest household size in the project area is 13 person, these are families having many children or 2-3 generations living together under one house roof. The household size in the survey area is distributed as follows:

Table 3.5. Household Size

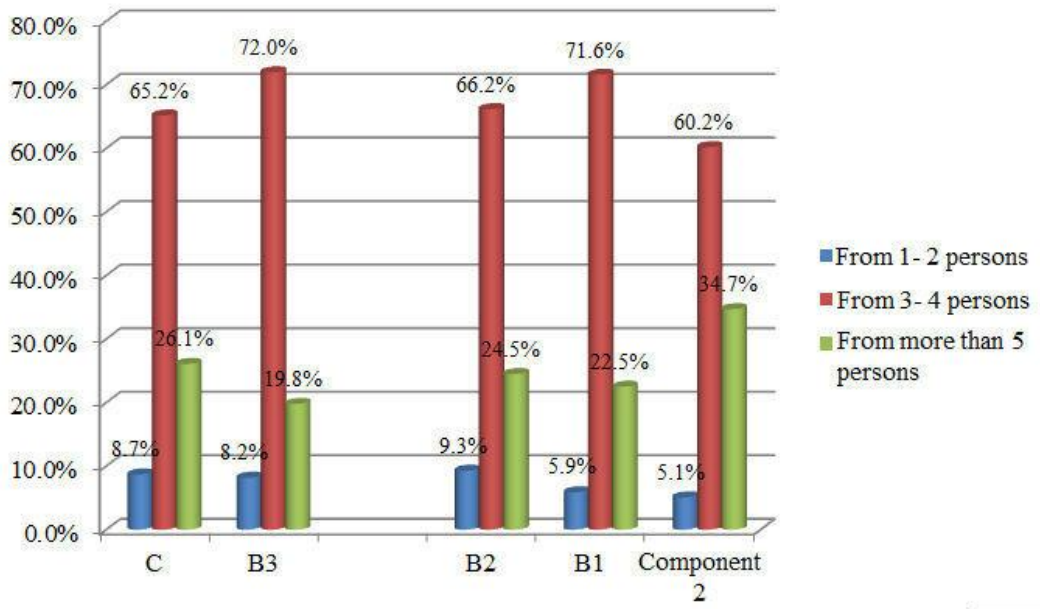
Content			Basins surveyed					
			C	B3	B2	B1	Component 2	Total
Household size	1 - 2 persons	Quantity	14	22	25	10	5	76
		Rate (%)	8.7%	8.2%	9.3%	5.9%	5.1%	7.9%
	3 - 4 persons	Quantity	105	193	178	121	59	656
		Rate (%)	65.2%	72.0%	66.2%	71.6%	60.2%	68%
	5 or more	Quantity	42	53	66	38	34	233
		Rate (%)	26.1%	19.8%	24.5%	22.5%	34.7%	24.1%
Total		Quantity	161	268	269	169	98	965
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015)

In the project Basins, concerning the area of the Component 2, it has the highest proportion (34.7%) of households with more than-5-person per household; followed by basin C with 26.1% of more-than-5 person households. These basins have ethnic minorities and the birth rate of ethnic minority households is often higher than the birth rate of Kinh people, so the household size of more than 5 persons in these basins are higher than that in other basins. In other basins such as basin B3, B1, the proportion of households having between 3-4 people took the majority (72% and 71.6% respectively), households sized from 1 – 2 persons and more than 5 persons only made up a small percentage.

As a summary, comparing with the statistic size of household in the entire wards/communes in the province in 2013 (approximately 3.8 persons / household), the size of household in the survey sample is quite similar..

Figure 4: Household Size By Each Project Basin



(Source: Socio-economic survey, 08/2015)

Ethnic Groups

The survey's results on ethnic groups showed that the project basins are occupied mainly by Kinh people, only some San Diu, Cao Lan ethnic households in Tam Dao district and Binh Xuyen under Component 2 and basin C of the project. Out of total 965 people interviewed, 96.6% were Kinh people and 3.4% were San Diu and Cao Lan people. Because the project is located in midland region (not remote and/or separated from delta region). Profile of the EM group is summarized as follows:

- *Household Size*. Survey indicated that EM households size is on average of 4.2 person/ household, while those indicator for Kinh at 3.9 person/household on average.
- *Occupation and Income*. Percentage of EM people working on production of agriculture, forestry, husbandry and fisheries is about 85.4%, a bit higher than Kinh people (60.3%). The EM average income is around VND 1.05 million per capita per month.
- *Access to Public Facilities*. All of the surveyed EM access to national power grid, while clean water supply is a critical issue that most of local people use water from drilled well, dug well and also rain water for daily activities.
- *Flooding*. Because of midland region, the flooding is not critical issue as indicated by EM people, while average of 71.6% of surveyed households from social assessment responded that flooding seriously occurred in the locality, especially in the rainy season.

In consultations for the SA preparation, EMs expressed their support to the project implementation because it will not only help reducing flooding during raining seasons, but enabling to improve the agricultural productivity in the project area where EM groups of San Diu, Cao Lan reside.

Consultations with committee for EM Affairs, addressed existing policies and implementations currently supporting EM in the provincial at the project area, such as poverty reduction program (135 Program as stipulated in Decision 551/QD-TTg dated 4/4/2013), micro-credit for production development to the poor EM, for period 2012-2015 (as mentioned in Decision 54/2012/QD-TTg dated 4/12/2012), and water supply provision (as mentioned in the Decision 1592/QD-TTg dated 12/10/2009) investments

In the project area defined for Component 2 at Hop Chau commune (Tam Dao district) basin C have EM residing and where the proportion of ethnic groups participating in the interview was higher than in other basins. There are also some cases of EM peoples in other Basins and according to the survey mainly are ethnic women, whom married with local male (Kinh) and integrated to live together with their Kinh family. Their jobs mainly are farmers. Specific information on ethnic groups collected by the surveyed project's Basins is as follows:

Table 3.6. Ethnic Group of Respondent By Project Basin in Tam Dao

			Basins surveyed					Total
			C	B3	B2	B1	Component 2	
Ethnic group	Kinh	Quantity	156	265	269	169	73	932
		Rate (%)	96.9%	98.9%	100%	100%	74.5%	96.6%
	San Diu	Quantity	5	3	0	0	25	33
		Rate (%)	3.1%	1,1%	0%	0.0%	25.5%	3.4%
Total		Quantity	161	268	269	169	98	965
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015

As result of screening (within the project's area of influence – as a minimum) and consultations with local people i confirmed the presence of indigenous peoples, (here) or ethnic minority communities – as per Bank's OP 4.10 definition

Bank's OP4.10 requires that when screening process determines the presence of EM in the subproject area, which is the case of this Project, subprojects defined for implementation, require toprepare an EMPF. This EMPF's objective is to provide guidance as to how an EMDP subproject should be prepared, to ensure that (i) affected EM peoples receive culturally appropriate social and economic benefits; and (ii) when there are potential adverse effects on EM, the impact are identified, avoided, minimized, mitigated, or compensated and (iii) free prior and informed consultations are carried out. This SA followed the guidance and principles of the OP 4.10 when carrying out the survey and consultations

Education

According to the survey result, out of 965 people interviewed, the people having secondary school level accounted for the highest proportion of 40.7%; followed by high school level people accounted for 37.9%. People with college/university or vocational level accounted for 9.4% and 4.5% of respondents surveyed were illiterate. Specific educational level of respondents in each project basin is shown in the following table:

Table 3.7. Educational level of respondent

Content			Basins surveyed					Total
			C	B3	B2	B1	Comp 2	
Educational Level	Illiterate/ never attended school	Quantity	6	12	16	3	6	43
		Rate (%)	4%	4.5%	5.9%	1.8%	6.1%	4.5%
	Primary school	Quantity	5	28	26	3	7	69
		Rate (%)	3%	10.4%	9.7%	1.8%	7.1%	7.2%
	Secondary school	Quantity	66	101	115	84	27	393
		Rate (%)	41%	37.7%	42.8%	49.7%	27.6%	40.7%
	High school	Quantity	69	98	86	61	52	366
		Rate (%)	43%	36.6%	32.0%	36.1%	53.1%	37.9%
	College/University/Vocational school	Quantity	13	29	26	18	5	91
		Rate (%)	8%	10.8%	9.7%	10.7%	5.1%	9.4%

Content			Basins surveyed					Total
			C	B3	B2	B1	Comp 2	
	Post university	Quantity	2	0	0	0	1	3
		Rate (%)	1%	0%	0%	0%	1%	0.3%
Total		Quantity	161	268	269	169	98	965
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015)

Overall, the educational level of the people in the project area is relatively high. The survey and group discussions with the local people in the project area showed ability of the community to participate and provide comments to the project. Therefore, during the dissemination of information related to the project as well as public consultation on the proposed technical options, the right approach should be prepared so that the communities understand the nature and significance of the project as well as participate and support the project.

3.1.2.2 Household Income and Expenditure

Occupation

Household's living condition depends on the stability of the main breadwinner in the family. They usually rely on more than one job, that household's heads work on agricultural production, and other members belong to the state-salaried groups (including civil servants and the retired) who have relatively stable income and life. As for the poor and medium households, they often have unstable and temporary jobs.

The survey result showed that out of 965 households interviewed, farming households took the highest proportion (60.3%); followed by those in trade/service/processing of agricultural products (8.9%), public servants accounted for 9.7% and those in other industries accounted for a small percentage. The occupation proportion of participants surveyed in each project basin is shown in details in the table below:

Table 3.8. Occupation of respondent

Content			Basins surveyed					Total
			C	B3	B2	B1	Comp 2	
Occupation of Respondent	Public servant	Quantity	19	22	26	22	5	94
		Rate (%)	11.8%	8.2%	9.7%	13%	5.1%	9.7%
	Other cadre in locality	Quantity	2	14	9	5	5	35
		Rate (%)	1.2%	5.2%	3.3%	3.0%	5.1%	3.6%
	Retired	Quantity	11	18	18	8	7	62
		Rate (%)	6.8%	6.7%	6.7%	4.7%	7.1%	6.4%
	Business owner/Contractor	Quantity	2	6	7	0	1	16
		Rate (%)	1.2%	2.2%	2.6%	0.0%	1.0%	1.7%
	Farmer	Quantity	109	153	163	103	54	582
		Rate (%)	67.7%	57.1%	60.6%	60.9%	55.1%	60.3%
	Worker	Quantity	8	7	12	12	6	45

Content			Basins surveyed					Total
			C	B3	B2	B1	Comp 2	
		Rate (%)	5.0%	2.6%	4.5%	7.1%	6.1%	4.7%
	Craftsman	Quantity	0	5	0	0	1	6
		Rate (%)	0%	1.9%	0%	0%	1.0%	0.6%
	Trade/service/agricultural processing man	Quantity	4	19	28	18	17	86
		Rate (%)	2.5%	7.1%	10.4%	10.7%	17.3%	8.9%
	Public security/Soldier	Quantity	0	2	2	0	1	5
		Rate (%)	0%	0.7%	0.7%	0%	1.0%	0.5%
	Hired/unstable job	Quantity	2	20	3	1	1	27
		Rate (%)	1.2%	7.5%	1.1%	0.6%	1.0%	2.8%
	Other	Quantity	4	2	1	0	0	7
		Rate (%)	2.5%	0.7%	0.4%	0%	0%	0.7%
Total		Quantity	161	268	269	169	98	965
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015)

From the survey result, in the project basins, the proportion of households engaged in agriculture was the highest. Their main source of income was mainly from agricultural activities, which decided greatly to stability and living standards of the households.

Income and Expenditure. During surveys Vietnamese people often do not reveal their true income, and this survey was not an exception. Yet through actual observation and detailed interviews about the living conditions of the households, the surveyors collected information rather detailed on household income sources, of the interviewed.

In the project area, the proportion of households engaged in agriculture is relatively high and the main households' incomes are from food crops (such as rice, corn.) and some farm products (such as soybeans, beans, peanuts.). Currently, as flooding s occurs regularly there are one spring crop (on the lowlands) and 2-3 crops on uplands grounds. As a result, most of the households have average income of 4.45 million dong/household/month (or VND 1.14 million per capita per month). Specifically, 42.9% of the households earned from 1 to 3 million dong a month; 35.9% had an income of 3-5 million dong per month; 17.9% had more than 5 million dong per month. These households having an income of more than 5 million dong per month mainly do trade business or public servants, who live in the center of communes and towns such as: Huong Canh, Tu Trung, Yen Lac. However, 3.3% of the households have an income of less than 1 million dong per month. These are poor and vulnerable households.

Table 3.9. Income Range of Households In Project Basins

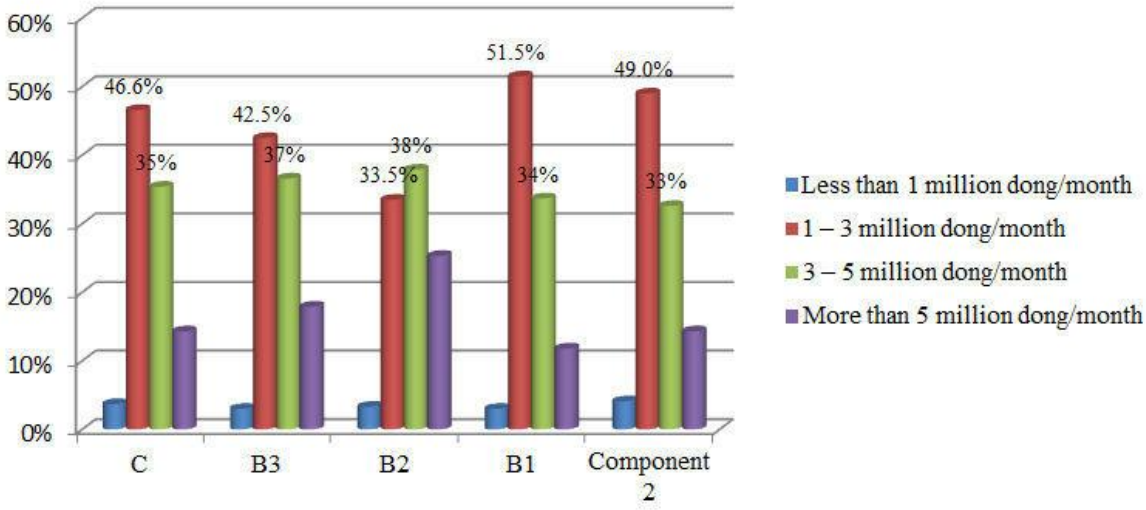
Income range		Basins Surveyed					Total
		C	B3	B2	B1	Comp 2	
Less than 1 million dong per month	Quantity	6	8	9	5	4	32
	Rate (%)	3.7%	3.0%	3.3%	3.0%	4.1%	3.3%
1 - 3 million	Quantity	75	114	90	87	48	414

dong per month	Rate (%)	46.6%	42.5%	33.5%	51.5%	49.0%	42.9%
3 - 5 million dong per month	Quantity	57	98	102	57	32	346
	Rate (%)	35.4%	36.6%	37.9%	33.7%	32.6%	35.9%
More than 5 million dong per month	Quantity	23	48	68	20	14	173
	Rate (%)	14.3%	17.9%	25.3%	11.8%	14.3%	17.9%
Total	Quantity	161	268	269	169	98	965
	Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015, N= 965)

Income stability plays a crucial role in settling down living conditions of the households and evaluation on the stability of households' income is considered to be one of the necessary criteria. The survey result showed that 67.4% of the households interviewed said that their household income was relatively stable. This rate is relatively high in comparison with the proportion (32.6%) of the households stated their income was unstable. There is not much difference in this stability among the project basins, in particular: 72% of the households in basin C said that their household income was stable, 69.7% in basin B3, 73.2% in basin B2; 67% in basin B1 and 66.5% in Component 2 stated as such.

Figure 5: Income Range of Households In Project Basins



Households' were asked about their average expenditure amount per month and distribution of expenditure by detailed categories such as: expense for food, health care, and children's studying. Generally, well-off households often spent more than poor/medium ones and well-off households' expenses for education, health care, electricity, water, travel, supporting others were higher than that of poor/medium households.

Living conditions of poor households in urban areas are highly vulnerable due to their limited income sources. Therefore, in the course of implementing the project poor and vulnerable households need to be addressed appropriately as in the event of temporary/ permanent impacts as a result of the project.

3.1.2.3 Ownership of Consumer Goods

Housing

Houses partly reflect economic situation of the households whether they are well off, average or poor. The type of housing chosen for construction in the past few years is one-floor house with concrete roof or strong two-floor house, with separated kitchens and auxiliary structures such as bathrooms or toilets. The surveyed result presented that mostly housing of the households are built on land that hold land use right certificates and convenient locations for transportation, health services, education and most of houses are on long-standing housing land.

Overall, the type of house of households in the project basins is not different with a common "semi-solid house" type (accounting for 59%), followed by 35.5% of households having solid houses. The proportion of households living in temporary houses is very small (only 1.7% of the households live in wood houses accounting for 3.6%). These are mainly households facing economic difficulties that cannot afford to improve their housing. The details are in the following table:

Table 3.10. Housing Type oOf The Household

Type of house		Basins surveyed					Total
		C	B3	B2	B1	Comp 2	
Solid	Quantity	65	94	103	45	36	343
	Rate (%)	40.4%	35.1%	38.3%	26.6%	36.7%	35.5%
Semi-solid	Quantity	88	160	156	112	53	569
	Rate (%)	54.7%	59.7%	58.0%	66.3%	54.1%	59.0%
Wood/leaf-roof	Quantity	4	9	8	7	7	35
	Rate (%)	2.5%	3.4%	3.0%	4.1%	7.1%	3.6%
Temporary	Quantity	4	5	0	5	2	16
	Rate (%)	2.5%	1.9%	0.0%	3.0%	2.0%	1.7%
Other	Quantity	0	0	2	0	0	2
	Rate (%)	0%	0%	0.7%	0%	0%	0%
Total	Quantity	161	268	269	169	98	965
	Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015)

❖ *Ownership Of House/Land Of The Household*

Identifying the ownership status and location of the houses are necessary for the definition compensation policies and appropriate support for the households affected by implementing the project.

According to the survey result in the project basins, 91% of households have certificates of land use right; the rest of households (9%) do not have that certificate or possess other documents of ownership. Of the project basins, basins B3 and Component 2 have the highest proportion of households without a land/house certificate (6% and 5% respectively). As explored in detail the causes of the households without a house/land certificate in the survey, various causes are obtained such as the certificate has not been issued due to insufficient legislation, cases where the household occupied public land years ago and they do not have

legal papers to prove the validity of their land. However, they have lived, done business and built houses on the land for many years. The result is shown as follows:

Table 3.11: Ownership of house of households surveyed

Content			Basins surveyed					Total
			C	B3	B2	B1	Component 2	
Ownership papers of household	Land use right certificate	Quantity	154	233	246	166	81	880
		Rate (%)	96%	87%	91.4%	98%	83%	91%
	Land/house certificate granted by agency	Quantity	3	3	6	0	1	13
		Rate (%)	2%	1%	2.2%	0%	1%	1%
	Certificate for temporary purchase of land/house	Quantity	3	14	10	3	7	37
		Rate (%)	2%	5%	3.7%	2%	7%	4%
	No paper	Quantity	1	16	4	0	5	26
		Rate (%)	1%	6%	1.5%	0%	5%	3%
	Other	Quantity	0	2	3	0	4	9
		Rate (%)	0%	1%	1.1%	0%	4%	1%
Total		Quantity	161	268	269	169	98	965
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015, N= 965)

Structures and Assets

The value of assets in each family depends very much on their economic conditions. Essential items and low value assets are common in households with average living standards, whereas well-off and rich households often use valuable assets. It can be seen that color TV is a popular item, so 97.6% of households own one; 85.5% have phones; 75.9% have motorcycles; 59.3% have refrigerators; 4.6% have cars. Asset ownership status of households in each project basin is shown in the table below:

Table 3.12. Household assets

Content		Basins Surveyed					Total
		C	B3	B2	B1	Component 2	
High quality furniture	Quantity	41	120	104	64	33	362
	Rate (%)	25%	44.8%	38.7%	37.9%	33.7%	37.5%
Motorcycle	Quantity	148	180	177	157	70	732
	Rate (%)	92%	67.2%	65.8%	92.9%	71.4%	75.9%
Bicycle	Quantity	131	250	240	145	96	862
	Rate (%)	81%	93.3%	89.2%	85.8%	98.0%	89.3%

Content		Basins Surveyed					Total
		C	B3	B2	B1	Component 2	
Radio	Quantity	45	96	50	32	42	265
	Rate (%)	28%	35.8%	18.6%	18.9%	42.9%	27.5%
Color TV	Quantity	159	268	265	160	90	942
	Rate (%)	98.8%	100%	98.5%	94.7%	91.8%	97.6%
Refrigerator	Quantity	87	183	162	92	48	572
	Rate (%)	54%	68.3%	60.2%	54.4%	49.0%	59.3%
Washing machine	Quantity	56	97	119	50	44	366
	Rate (%)	34.8%	36.2%	44.2%	29.6%	44.9%	37.9%
Phone	Quantity	145	217	230	153	80	825
	Rate (%)	90.1%	81.0%	85.5%	90.5%	81.6%	85.5%
Air conditioner	Quantity	31	75	77	41	18	242
	Rate (%)	19.3%	28%	28.6%	24.3%	18.4%	25.1%
Car	Quantity	5	11	17	8	3	44
	Rate (%)	3.1%	4.1%	6.3%	4.7%	3.1%	4.6%

(Source: Socio-economic survey, 08/2015)

The survey result showed no significant differences in the types of assets owned by households in the project basins. Most of the well-off households use expensive and luxurious items. These are the households that do trade, business, services, and a few are the state civil servants. Households working on agricultural activities and lower income either does not have motorcycles or have cheap ones. For other consumption patterns related to electric devices such as fans, radios, televisions difference between low income households and higher ones, is mainly the brands which differentiates between their living standards.

3.1.2.4 Public Services and Utilities

Power Supply

The survey result showed that in all the project basins, the people accessed to the national power grid, 97.4% of households used electricity with a separate meter, only 2.6% of households used shared electricity with their neighbor. The survey result on power use of the households in each basin is shown in the table below:

Table 3.13: Power used by household

Content			Basins surveyed					Total
			C	B3	B2	B1	Component 2	
Power used by Household	Private electricity use	Quantity	161	257	261	165	96	940
		Rate (%)	100%	95.9%	97%	97.6%	98%	97.4%
	Electricity use shared with neighbor	Quantity	0	11	8	4	2	25
		Rate (%)	0%	4.1%	3%	2.4%	2%	2.6%

Content		Basins surveyed					Total
		C	B3	B2	B1	Component 2	
Total	Quantity	161	268	269	169	98	965
	Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015, N= 965)

- **Quality of Power**

According to the survey data on power quality in residential areas, the power source is not immediate concern to the demand of the people when only 11.1% stated that power is weak or very weak; 32.2% said that the power is strong enough for their demand and 56.7% said it is normal and acceptable. Overall, no differences in power supply quality are observed between the project basins.

However, in the project area, power cuts appear occasionally. The survey result showed that 67% of households stated that their power was rarely cut, 21.5% said the power was cut 1 -2 times/month; 8.6% said 3 – 5 times/month. Of the project basins, basins C and B2 are most observed with power cuts. The frequency of power cuts in each project basin is presented in the table below:

Table 3.14: Power Cut Frequency Of Household

Content			Basins Surveyed					Total
			C	B3	B2	B1	Comp 2	
Power cut frequency	Rarely cut	Quantity	93	192	193	100	69	647
		Rate (%)	58%	71.6%	72%	59.2%	70%	67.0%
	Cut 1 – 2 times/month	Quantity	43	55	64	26	19	207
		Rate (%)	27%	20.5%	24%	15.4%	19%	21.5%
	Cut 3 – 5 times/month	Quantity	20	19	6	28	10	83
		Rate (%)	12%	7.1%	2%	16.6%	10%	8.6%
	Cut more than 5 times/month	Quantity	2	1	2	12	0	17
		Rate (%)	1%	0.4%	1%	7.1%	0%	1.8%
	Not known	Quantity	3	1	4	3	0	11
		Rate (%)	2%	0.4%	1%	1.8%	0%	1.1%
Total		Quantity	161	268	269	169	98	965
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015, N= 965)

Transportation

❖ *Current Situation Of Roads In Alleys/Hamlets*

In general, roads in alleys/hamlets to the households in the project areas are not uniform and do not meet the local needs of development in the current conditions. Asphalt roads are focused

only on main roads, national roads, roads in urban centers, inter-district roads and inter-commune roads.

The survey result in the project basins showed that access roads to the households are mostly concrete roads (70.5%), followed by asphalt roads (8.6%) and 7.5% of households surveyed said that the access roads to their houses are earth ones, 13.5% stated the access roads are made of stones, gravel and bricks.

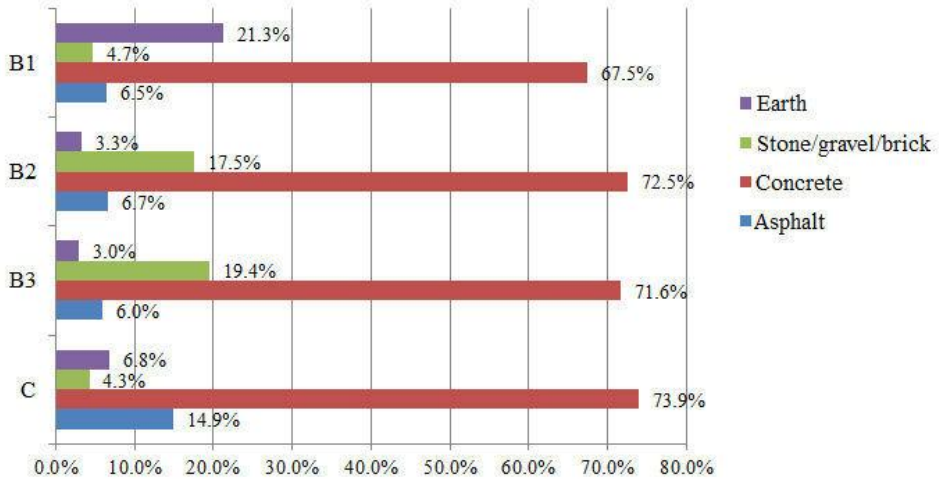
Table 3.15: Access Road to Households

Content			Basins surveyed					
			C	B3	B2	B1	Component 2	Total
Characteristics of access road to households	Asphalt	Quantity	24	16	18	11	14	83
		Rate (%)	14.9%	6.0%	6.7%	6.5%	14.3%	8.6%
	Concrete	Quantity	119	192	195	114	60	680
		Rate (%)	73.9%	71.6%	72.5%	67.5%	61.2%	70.5%
	Stone/brick/gravel	Quantity	7	52	47	8	16	130
		Rate (%)	4.3%	19.4%	17.5%	4.7%	16.3%	13.5%
	Earth	Quantity	11	8	9	36	8	72
		Rate (%)	6.8%	3.0%	3.3%	21.3%	8.2%	7.5%
Total		Quantity	161	268	269	169	98	965
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015, N= 965)

The households living along the inter-district roads, main commune/village roads said that 100% of these roads are asphalt or concrete ones while the households living in alleys stated that the access road to their houses is stone, gravel, brick or earth one. Basins B1 and Component 2 have the highest proportion of earth roads in the project area (21.3% and 8.2% respectively). Most of the communes in the project area have participated in new rural programs. 100% of roads in the communes that finished the transportation criterion under the program have been asphalted or concreted such as Yen Lap, Kim Xa, Hoang Lau communes in basin B1, Thuong Trung and Tho Tang communes in basin B2....

Figure 6: Access Road To Household's House In Project Area



Evaluating the roads in alleys where the households live showed that: in general, a relatively high proportion (59.1%) of households surveyed stated that the alley roads where they live are in good conditions. There is no difference in assessing the quality of alley roads as "good" in the project basins: B1 (65.1%), Component 2 (63,3%), B2 (59,9%)..These are asphalt and concrete roads evaluated positively by the people. The people surveyed provided the current situation of roads where they live as follows:

Table 3.16: Quality of Roads/Alleys Where Households Live

Road quality		Basins Surveyed					Total
		C	B3	B2	B1	Comp 2	
Good, in general	Quantity	89	148	161	110	62	570
	Rate (%)	55.3%	55.2%	59.9%	65.1%	63.3%	59.1%
Narrow	Quantity	22	44	46	33	13	158
	Rate (%)	13.7%	16.4%	17.1%	19.5%	13.3%	16.4%
Low road surface	Quantity	48	82	54	43	34	261
	Rate (%)	29.8%	30.6%	20.1%	25.4%	34.7%	27.0%
Often flooded	Quantity	46	51	47	38	24	206
	Rate (%)	28.6%	19.0%	17.5%	22.5%	24.5%	21.3%
Rough and difficult to travel	Quantity	20	60	55	45	23	203
	Rate (%)	12.4%	22.4%	20.4%	26.6%	23.5%	21.0%
without lighting electricity	Quantity	137	135	118	100	75	565
	Rate (%)	85.1%	50.4%	43.9%	59.2%	76.5%	58.5%

(Source: Socio-economic survey, 08/2015, N= 965)

The survey result also showed that, when asked about the quality of access road to the people's house, 21.3% of households stated that the road is often flooded in the rainy season as well as stagnant by domestic waste due to unavailability of drainage system by the road. 16.4% said the road is narrow; 27% thought the road surface is low; 21% said it is rough and difficult to travel on; 58.5% stated that the road does not have a lighting system. The lighting systems are only installed at main street roads of communes and villages. To sum up, in the project area, transportation is not an urgent issue that needs to be resolved as only a few households demonstrated the road is in badly rough, flooded and dim conditions.

Water Supply

Clean water is one of the criteria for evaluating quality of public services. When exploring information on water source for daily use of the households in the project area, the survey result showed that the water source used mostly by households in the project area is water in drilled wells (accounting for 80.3%), the proportion of households using tap water accounted for only 12.9%, in addition to the households using water from dug wells (6.1%), only a small proportion of households using rainwater for daily activities. Specific information about water sources used by households is as follows:

Table 3.17: Water Source Used By Households

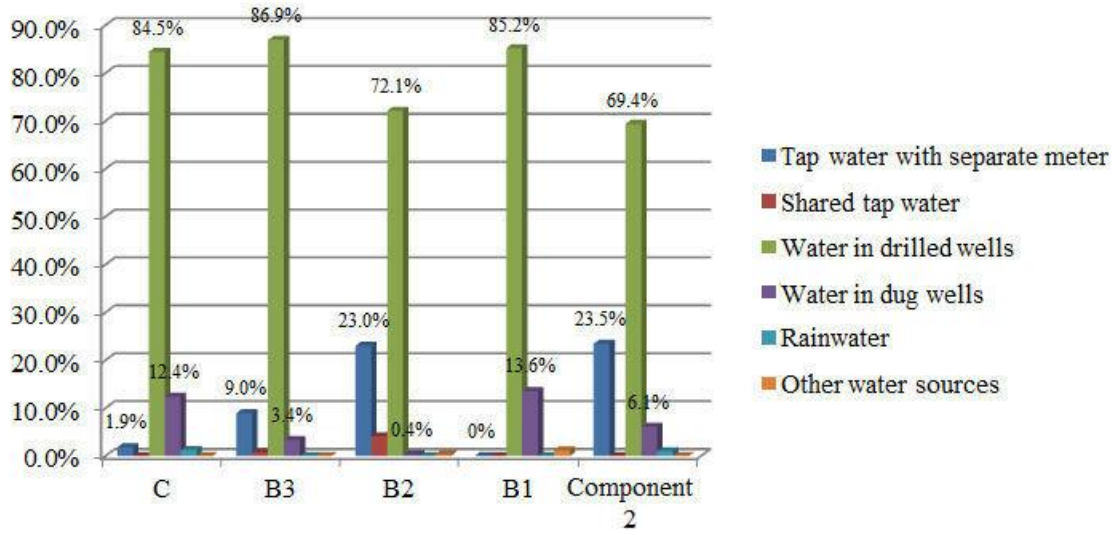
Content			Basins surveyed					Total
			C	B3	B2	B1	Comp 2	
Water source used by households	Use of tap water with a separate water meter	Quantity	3	24	62	0	23	112
		Rate (%)	1.9%	9.0%	23%	0%	23.5%	11.6%
	Use of tap water with a shared water meter	Quantity	0	2	11	0	0	13
		Rate (%)	0%	0.7%	4.1%	0%	0%	1.3%
	Use of water in drilled wells	Quantity	136	233	194	144	68	775
		Rate (%)	84.5%	86.9%	72.1%	85.2%	69.4%	80.3%
	Use of water in dug wells	Quantity	20	9	1	23	6	59
		Rate (%)	12.4%	3.4%	0.4%	13.6%	6.1%	6.1%
	Use of rainwater	Quantity	2	0	0	0	1	3
		Rate (%)	1.2%	0%	0%	0%	1.0%	0.3%
	Other sources	Quantity	0	0	1	2	0	3
		Rate (%)	0%	0%	0.4%	1.2%	0%	0.3%
Total		Quantity	161	268	269	169	98	965
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015, N= 965)

Currently the water supply plants in Vinh Phuc province have provided clean water for households living in Vinh Yen city, communes of Lap Thach, Tam Duong, Yen Lac, Tam Dao districts and some industrial parks located in the province. The project basins are 7 districts/city but mostly concentrated in the rural communes, so the people have not accessed to tap water, only households in Tho Tang, Ngu Kien (basin B2), Huong Canh (basin B3), Yen Lac (under Component 2) are using tap water. Some households drill wells themselves to obtain water for their daily use. Water from drilled wells is used for drinking, bathing and washing purposes. There are also some households using combined water sources such as rainwater and 20 liter bottled water to ensure enough water for their use.

When self-assessing the quality of water used by households, 66.3% of them thought that the water they are using is clear and clean; 20.3% of households stated their water is clear but smelly; 8.2% supposed that their water is not clear, colored and smelly. The assessment of the people is based in perceptions without any support of analysis done in laboratories

Figure 7: Water Sources Used By Households



In general, the assessment of water quality used by the households in the project basins also differs. The "clean and clear water" criterion was agreed by the most households in the basins of Component 2 and B2 (74.5% and 71.4%). The households rated this criterion are mostly ones using tap water. For households using water from drilled wells, the water is filtered simply by the households with a layer of charcoal, sand before use, therefore quality of water is not clean (with smell or color).

Table 3.18: Quality of Water Used By Household

Content			Basins surveyed					Total
			C	B3	B2	B1	Com 2	
Quality of water source	Clean and clear	Quantity	103	165	192	107	73	640
		Rate (%)	64.0%	61.6%	71.4%	63.3%	74.5%	66.3%
	Clear but smelly	Quantity	15	69	49	47	16	196
		Rate (%)	9.3%	25.7%	18.2%	27.8%	16.3%	20.3%
	Not clear, colored and smelly	Quantity	33	5	25	7	9	79
		Rate (%)	20.5%	1.9%	9.3%	4.1%	9.2%	8.2%
	Other	Quantity	10	29	3	8	0	50
		Rate (%)	6.2%	10.8%	1.1%	4.7%	0.0%	5.2%
Total		Quantity	161	268	269	169	98	965
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015, N= 965)

Drainage and Flooding

❖ *Drainage*

Poor drainage, flooding in the rainy season and stagnancy of waste in residential areas, especially in basins B1, B2 and B3 are of the big concerns when the people provided feedbacks on the questionnaire as well as joined focus group discussions. Therefore, the survey on water drainage situation, assessing existing issues and finding solutions for upgrading and improving

the drainage system upon the desire of the people in the project area is one of the tasks set for the project.

During the study, the surveyors also combined in-depth interviews and field observation to have the most general assessment on the current situation of water drainage in residential areas. The survey result is recorded as follows:

Table 3.19: Present Condition Of Drainage System In The Project Area

			Basins Surveyed					
			C	**B3**	**B2**	**B1**	**Comp 2**	**Total**
Drainage status of household	Drained to combined sewer	Quantity	88	167	196	95	54	600
		Rate (%)	54.7%	62.3%	72.9%	56.2%	55.1%	62.2%
	Self-absorbed into the earth	Quantity	22	28	10	26	8	94
		Rate (%)	13.7%	10.4%	3.7%	15.4%	8.2%	9.7%
	Drained directly to rivers/ponds/lakes	Quantity	46	73	63	48	36	266
		Rate (%)	28.6%	27.2%	23.4%	28.4%	36.7%	27.6%
	Other	Quantity	5	0	0	0	0	5
		Rate (%)	3.1%	0%	0%	0%	0%	0.5%
Total		Quantity	161	268	269	169	98	965
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015, N= 965)

The survey result showed that the sewer system in the project basins is very poor, and only 62.2% of households responded that their waste water is drained into the combined sewer system of the locality. Among them, basin B2 has the most complete sewer system (72.9% of households drained their sewerage into the combined sewer), while the drainage systems in basins C and Component 2 are incomplete and the sewer lines existed mostly on the main roads of villages and hamlets. In the project basins, 27.6% of households directly discharged their waste water into rivers, streams and lakes. These are mainly households living next to Ba Hanh river, Tranh river, Canh river (in basin C), Phan river and households near Sau Vo lake, Rung lake... As a result, waste water will pollute the habitat, affecting the households and causing potential outbreak of diseases.

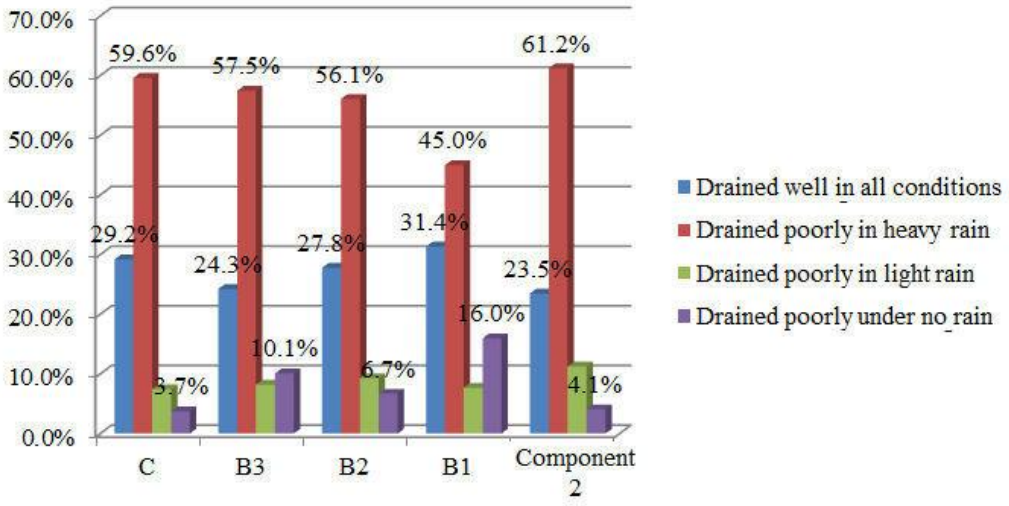
When exploring drainage condition in the project basins, the survey also showed that only 27.3% of the households stated that water drained well in all conditions, up to 57.5% of the households stated that the drainage was poor when it rained heavily; 8.6% reported poor drainage occurred in a light rain and 8.5% responded that the drainage was poor even without rain. The survey result on drainage circumstance in each project basin is presented in the table below:

Table 3.20: Drainage Quality In Project Basins

Content			Basins surveyed					
			C	B3	B2	B1	Comp 2	**Total**
Drainage system quality	Drained well in all conditions	Quantity	47	65	57	53	23	263
		Rate (%)	29.2%	24.3%	27.8%	31.4%	23.5%	27.3%
	Drained poorly in heavy rain	Quantity	96	154	151	76	60	537
		Rate (%)	59.6%	57.5%	56.1%	45.0%	61.2%	55.6%
	Drained poorly in light rain	Quantity	12	22	25	13	11	83
		Rate (%)	7.5%	8.2%	9.3%	7.7%	11.2%	8.6%
	Drained poorly under no rain	Quantity	6	27	18	27	4	82
		Rate (%)	3.7%	10.1%	6.7%	16.0%	4.1%	8.5%
Total		Quantity	161	268	269	169	98	965
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, 08/2015, N= 965)

Figure 8: Drainage Condition in Project Basins



❖ ***Flooding***

The survey on flooding situations in the project basins showed that 71.6% of the households responded that flooding occurred in the locality, specifically in basin C (77%), basin B3 (67.5%), basin B2 (71%), basin B1 (76.3%). Component 2 of the project is deployed in the communes of Hop Chau, Ho Son, Quang Minh under Tam Dao district, which are located in the upstream area of 3 rivers in Binh Xuyen. As a result, the area suffered from floods less than other basins.

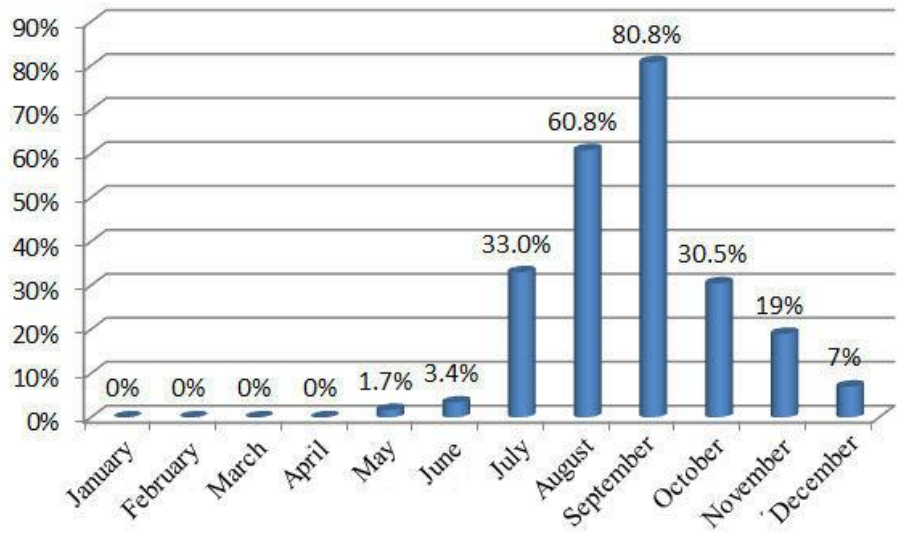
Table 3.21: Flooding Situation In Project Basins

Flooding situation		Basins surveyed					Total
		C	B3	B2	B1	Component 2	
Yes	Quantity	124	181	191	129	66	691
	Rate (%)	77.0%	67.5%	71.0%	76.3%	67.3%	71.6%
No	Quantity	37	87	78	40	32	274
	Rate (%)	23.0%	32.5%	29%	23.7%	32.7%	28.4%
Total	Quantity	161	268	269	169	98	965
	Rate (%)	100%	100%	100%	100%	100%	100%

In the project basins, flooding took place frequently during the rainy season. The survey showed that floods did not take place from January to April.

From June onwards, floods tended to appear increasingly, becoming common in July and August (33% - 60.8%) and the most frequent in September (80.8%). Floods occurrence decreased in October, November and December and July, August and September are the months when the households suffer from floods the most. Land area flooded in the basins was mostly agricultural land, so at that time the people could not cultivate in low-lying areas but they were just able to cultivate one spring crop.

Figure 9: Flooding Time In A Year



When exploring the cause of flooding in the project basins, beside the heavy rain reason, another reason also mentioned by the local authorities and people was that the local ditches and canals did not meet the requirement for drainage during the rainy season. Specifically:

- In basin C, the riverbed of 3 rivers in Binh Xuyen namely Ba Hanh, Tranh and Canh is currently narrowed and accumulated with sediment, especially sections passing the communes of Son Loi, Ba Hien, Thien Ke… As a result, the water drained slowly in the rainy season.

- Phan River is large and runs through most of the project basins. It plays a very important role in flood relief for the 3 river system in Binh Xuyen as well as B3 and B2 basins. However, this river is now narrowed and accumulated; the riverbed is shallow and contains sediments. As a result, the water drained slowly in the rainy season.

- B1 basin and 8-gate outfall in Yen Lap commune play an important role in drainage for the entire agricultural area of Yen Lap, Kim Xa, Nghia Hung communes and some communes along Phan river. However, this 8-gate culvert is now degraded, not satisfy the drainage requirement in the rainy season.

❖ ***Local People's Desires to Renovate the Drainage System in the Project Area***

When collecting ideas of the households on their desire for construction of a drainage system in the project area, there were 81.7% of households stated that the construction should be done immediately; 14.2% expressed that it should be done if conditions permit, only 4.1% stated that construction of the drainage system is not necessary. Accordingly, the desire to renovate the drainage system is not a private idea of a single group but it is a general idea of the whole people in the project basins.

With an insight into the suggestions from the community in resolving the flooding situation at the locality, the survey results showed that 71.9% of households stated that it is required to dredge canals/ ditches and clear stream while 27.5% of households stated that it is required to flood drainage build pumping stations and dam embankments. In the project basins, Basin C has densest rivers, therefore, up to 78.9% of households proposed the method of dredging canals and clearing stream. Measures to resolve flooding in the project basins as proposed by local communities are presented in the table below:

Table 3.22: Methods of Resolving Flooding At The Project Basins

Methods of resolving flooding at the locality		Basins surveyed					Total
		C	B3	B2	B1	Comp 2	
Dredging canals, ditches and clearing stream	Quantity	127	194	190	110	73	694
	Rate (%)	78.9%	72.4%	70.6%	65.1%	74.5%	71.9%
Building flood drainage pumping stations and dam embankment	Quantity	31	74	76	59	25	265
	Rate (%)	19.3%	27.6%	28.3%	34.9%	25.5%	27.5%
Other methods	Quantity	3	0	3	0	0	6
	Rate (%)	1.9%	0.0%	1.1%	0.0%	0.0%	0.6%
Total	Quantity	161	268	269	169	98	965
	Rate (%)	100%	100%	100%	100%	100%	100%

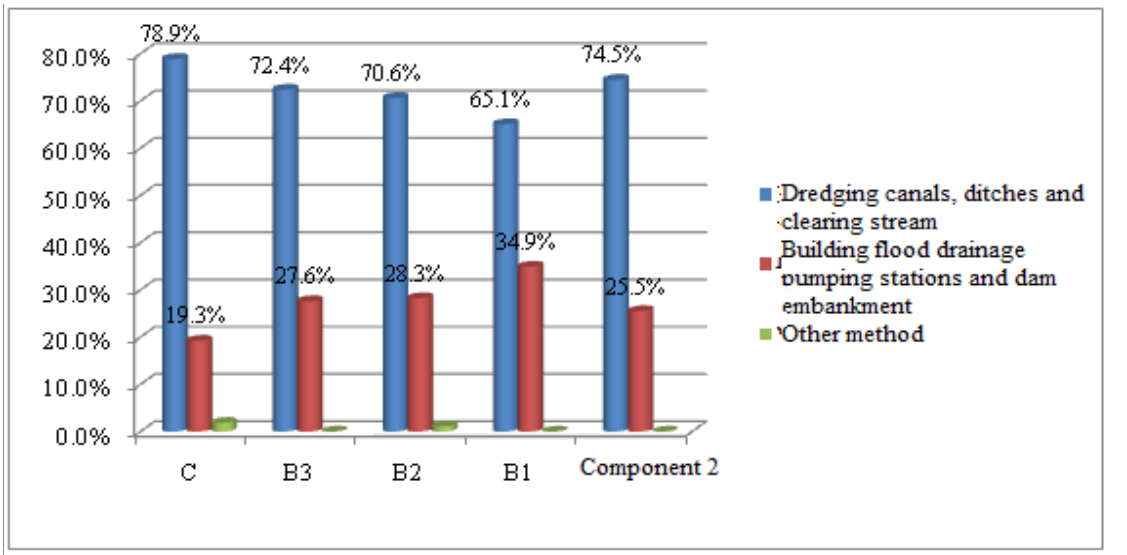
(Source: Socio-economic survey, August /2015, N= 965)

To resolve the flooding at the project basins, the project implementation agency will carry out the dredging of Binh Thuy 3-river system (in basin C) and Phan river, build 3 flood drainage pumping stations with capacity of about 45 m3/s each. Namely: Building Kim Xa pumping

station (in Basin B1), Ngu Kien pumping station (in Basin B2), Nguyet Duc pumping station (in Basin B3).

It can be said that resolving of flooding at the project basins is essential for life of people living in 7 districts/cities so that people can cultivate 2 or 3 seasons per year instead of only one season in low-lying land, thereby improving their living conditions and income of households.

Figure 10: Suggestions of Community for Resolving Flooding In The Project Basins



Environmental Sanitation And Health

❖ *Solid Waste*

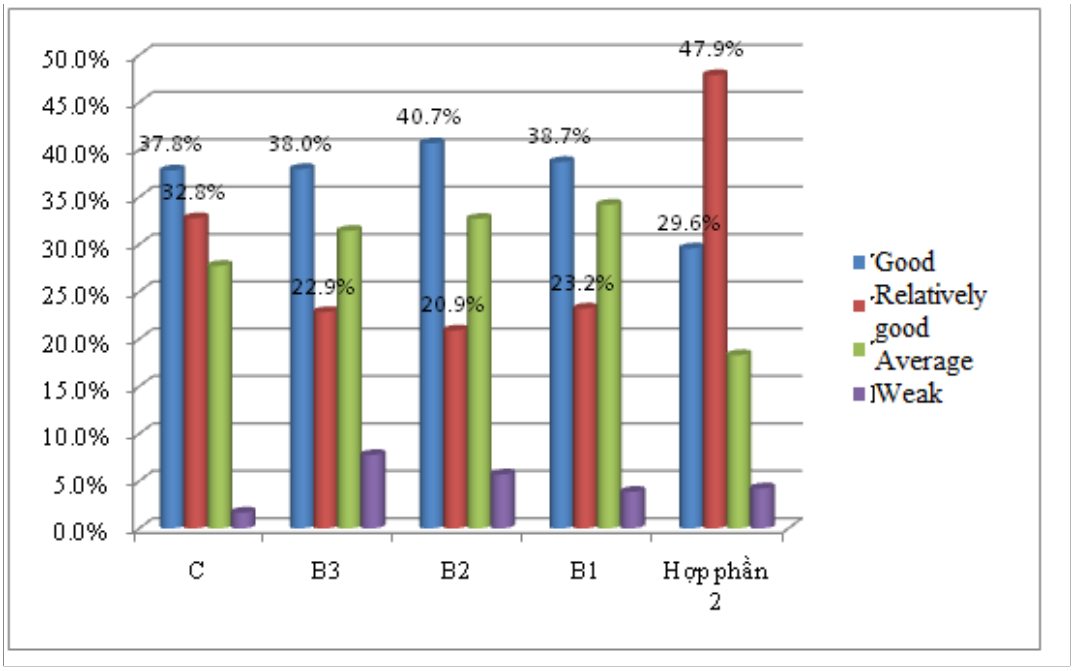
The survey result showed that 85.4% of households stated that wastes are collected daily. In the project basins, the proportions of waste collection on daily basis in Basin C and Component 2 are lowest (72.7% và 72.4%respectively). Most of wards/communes in Basins B1, B2 and B3 satisfied with environmental criteria under the New Rural Development Program, therefore the daily waste collection is performed quite well with the respective proportions at Basin B1, B2 and B3 of 85.2%, 95.2% and 88.1%. The fee for waste collection is different in each basin. Each household will pay from 10-20 thousand dong per month on average. In general, households currently using daily waste collection service evaluated the service as "good" accounted for 38.2%, while 25.8% evaluated it as "relatively good" and 30.7% evaluated the waste collection service at "average" level, 5.3% of households evaluated the waste collection services at “bad” level. That waste and garbage collection service was considered deficient for several reasons, among others the lack of schedules for collection. In addition, the waste and garbage gathered at the gathering point is not collected promptly, causing pollution to the communities living nearby the place.

Table 3.23: Waste Collection At Project Basins

Items			Basins surveyed					Total
			C	B3	B2	B1	Component 2	
Is waste collected?	Yes	Quantity	117	236	256	144	71	824
		Rate (%)	72.7%	88.1%	95.2%	85.2%	72.4%	85.4%
	No.	Quantity	44	32	13	25	27	141
		Rate (%)	27.3%	11.9%	4.8%	14.8%	27.6%	14.6%
Total		Quantity	161	268	269	169	98	965
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, August /2015, N= 965)

Figure 11: Quality of Waste Collection Services at Project Basins



Therefore, in all 4 project basins, about 14.6% of the surveyed households stated that waste is not collected daily. In fact, street households are often served by waste collection teams on daily basis. Waste collection for households in alleys encounters many difficulties because the alley roads are undeveloped. Therefore, the households have to find ways to treat their household wastes on their own. The method of burning and burying (53.6%) is most popular. It is followed by dumping out to gardens/dug holes (8.3%) by households having large land. Households living near Phan river, Binh Xuyen 3-river system mostly discharge waste directly into these sources (15.5%).

In-depth interviews and group discussions also provided comments that waste collection is only good for street households of villages/hamlets. For lanes/alleys remote the main streets, waste is not collected but discharged into river, causing congestion and environmental pollution. Thus, waste can be seen as one of factors causing environmental pollution and affecting the people's lives when the waste is not collected properly and at the right place.

❖ ***Toilets***

The biggest differences between the well-off households and low-income households in urban areas are differences in income, living standards and education conditions, accessibility to clean water, environment sanitation and health care services, etc. Poor people have not many opportunities to enhance their living standards and their living routines depend on natural conditions. From these limitations, most low-income people in the project area have not yet paid special attention to building of adequate toilets..

The survey results on ownership of toilets showed that most of households (95.9%) have separated toilets and only 4.1% of households have no separated toilets. Households having no separated toilets concentrate in basins C, B1, B2, B3. These households are poor. Therefore, they have to share with their neighbors.

For households having difficult economic conditions, types of toilets used by them are pits, pouring ash or discharged directly into the environment. When comparing types of various toilets among the project basins, there is no difference in the proportion of households using septic tanks. However there is big difference in other types of toilets. Specifically, in the basins B2, B1, up to 8.9% and 6.5% of households have toilets discharging directly into the environment, whereas this rate in basin B3 is 3% and Component 2 is 0%. Similar to toilets as pits or pouring ash, there is also great difference among the project basins. Up to 16.8% of households in the basin C use this type of toilet while this rate in other basins is much lower. Specifically, the types of toilets in the project districts are as follows:

Table 3.24: Status of using toilets by household economic sector

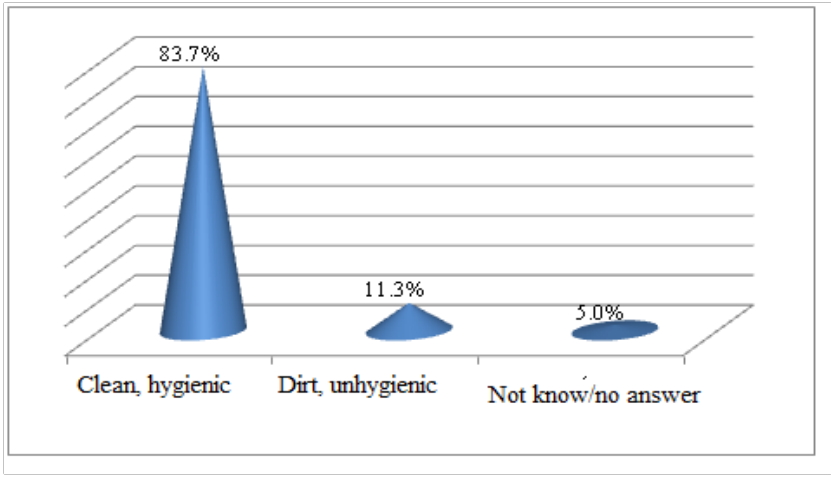
Items			Basins surveyed					Total
			C	B3	B2	B1	Comp 2	
Types of toilets	Septic tank	Quantity	126	241	223	139	89	818
		Rate (%)	78.3%	89.9%	82.9%	82.2%	90.8%	84.8%
	Toilet discharging directly into environment	Quantity	8	8	24	11	0	51
		Rate (%)	5.0%	3.0%	8.9%	6.5%	0.0%	5.3%
	Public toilet	Quantity	0	0	2	1	0	3
		Rate (%)	0.0%	0.0%	0.7%	0.6%	0.0%	0.3%
	Using river/canal/ditch	Quantity	0	2	0	3	0	5
		Rate (%)	0.0%	0.7%	0.0%	1.8%	0.0%	0.5%
	Pits or pouring ash	Quantity	27	17	20	15	9	88
		Rate (%)	16.8%	6.4%	7.4%	8.9%	9.2%	9.1%
Total		Quantity	161	268	269	169	98	965
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, August /2015, N= 965)

According to the subjective assessment of the households, 83.7% of households said that their household toilets are clean and hygienic; 11.3% of households said that their household toilets are unhygienic and the rest have no answer or said “not know”. Households who self-assessed their household toilet clean and hygienic are mainly households having septic tanks. Some

households using other types of toilets stated that their toilet are dirt and unhygienic. However, this is only the initial assessment and has nature of "sense" of the respondents. Generally, whatever households in the project basins are using any types of toilet, the source of the waste water from toilets is still mostly self-absorbed or directly discharged into canals/ ditches, seriously affecting the surrounding environment. Therefore, activities should be strengthened to change behaviors and limit environmental pollution caused by current people's habits .

Figure 12: Chart of Quality Of Toilets Of Households In The Project Area



❖ ***Environmental Pollution***

The result showed that 52.1% of households stated that the ambient living environment is polluted. Of which, the rate of pollution in Basin B1 accounts for 51.3%, it is followed by Basin B3, 55.2% and Basin C, 42.2%. Especially, in the project basins, 40.6% of households stated that their living environment is severely polluted. The pollution level in the project basins is different, of which the highest pollution level is in Basins B3 and B2 (43.2% and 43.5%, respectively) and it is followed by Basin C, 29.4%. According to these results, in the project basins, environmental pollution is a serious problem and this situation may increase in coming years unless the mitigation measures of environmental pollution are taken.

Table 3.25: Environmental pollution status

Items			Basins Surveyed					Total
			C	B3	B2	B1	Comp 2	
Pollution level	Severe pollution	Quantity	20	64	60	40	20	204
		Rate (%)	29.4%	43.2%	43.5%	41.7%	37.7%	40.6%
	Less pollution	Quantity	48	84	78	56	33	299
		Rate (%)	70.6%	56.8%	56.5%	58.3%	62.3%	59.4%
Total		Quantity	68	148	138	96	53	503
		Rate (%)	100%	100%	100%	100%	100%	100%

(Source: Socio-economic survey, August /2015, N= 965)

While exploring the causes of pollution, there are many different opinions. Many people stated that polluted living environment is caused by wastewater, garbage and flooding, etc. Of which

flooding in rainy season is one of main causes of environmental pollution, accounting for 64.6%. It is followed by stagnant wastewater (41.6%) and uncollected waste (17.9%).

Table 3.26: Causes of Environmental Pollution

Causes of environmental pollution		Basins surveyed					Total
		C	B3	B2	B1	Comp2	
Air, dust and smoke pollution	Quantity	44	72	71	63	34	284
	Rate (%)	27.3%	26.9%	26.4%	37.3%	34.7%	29.4%
Stagnant wastewater	Quantity	40	124	109	87	41	401
	Rate (%)	24.8%	46.3%	40.5%	51.5%	41.8%	41.6%
Garbage	Quantity	33	48	42	40	10	173
	Rate (%)	20.5%	17.9%	15.6%	23.7%	10.2%	17.9%
Flooding in rainy season	Quantity	102	189	174	100	58	623
	Rate (%)	63.4%	70.5%	64.7%	59.2%	59.2%	64.6%
Wastewater/exhaust air of surrounding manufacturers	Quantity	27	63	62	49	38	239
	Rate (%)	16.8%	23.5%	23.0%	29.0%	38.8%	24.8%
Noise	Quantity	13	34	24	6	28	105
	Rate (%)	8.1%	12.7%	8.9%	3.6%	28.6%	10.9%

(Source: Socio-economic survey, August /2015, N= 965)

3.1.2.5 Vulnerability

Out of total 965 households surveyed in all four basins of the project, 23.1% of households were assessed to be vulnerable, including 12.2% of women-headed households[6] with dependents; 4.1% of households having the elderly and disabled people; 3.4% of households with ethnic minorities and 3.3% of poor households. Of the project basins, component 2 (Tam Dao district) has had by far the largest number of vulnerable households, this component is place where. Many EM households live and its poverty rate is higher than the other basins. Details are as follows:

[6] The surveyed result presented woman headed households divided into 02 groups (i) Widow are 87 households who in age group of above 65 years old and, each household has 2-3 children with total 316 children); (ii) single mom are 31 households who in age group of 36 – 45 years old with total 52 children

Table 3.27: Vulnerable households in project area

Vulnerable households		Basins surveyed					Total
		C	B3	B2	B1	Comp 2	
Poor households	Quantity	6	8	9	5	4	32
	Rate (%)	3.7%	3.0%	3.3%	3.0%	4.1%	3.3%
Women-headed households	Quantity	16	33	31	26	12	118
	Rate (%)	9.9%	12.3%	11.5%	15.4%	12.2%	12.2%
Ethnic minority households	Quantity	5	3	0	0	25	33
	Rate (%)	3.1%	1.1%	0.0%	0.0%	25.5%	3.4%
Elderly and disabled people households	Quantity	12	6	8	13	1	40
	Rate (%)	7.5%	2.2%	3.0%	7.7%	1.0%	4.1%
Total	Quantity	39	50	48	44	42	223
	Rate (%)	24.2%	18.7%	17.8%	26.0%	42.9%	23%

(Source: Socio-economic survey, 08/2015, N= 965)

In ensuring **that the vulnerable will be adequate benefited from the project and/or** to avoid adverse impacts for vulnerable groups during the project construction and operation, it is essential to encourage their participation in all project cycles, and at the same time, to conduct IEC campaigns, training workshops and establish income restoration program(s) which enable local communities, especially vulnerable group not only being adequate aware of basic project information, participate in the project preparation and implementation, so they could directly benefit from the project, but improving their livelihood and living condition**.**

3.1.3. Stakeholder Analysis

3.1.3.1 Identification of Relevant Stakeholders

During the preparation and implementation of the project, Vinh Phuc PPC acts as Executive Agency and takes full responsibilities for monitoring and directing the project implementation under the supervision and direction of the relevant agencies. The ODA PMU will, on behalf of the Executive Agency, manage all the project's activities.

The implementing agencies include the relevant Departments, People's Committees of districts/wards/communes, private sector and communities in the project area as well as consulting firms, etc.

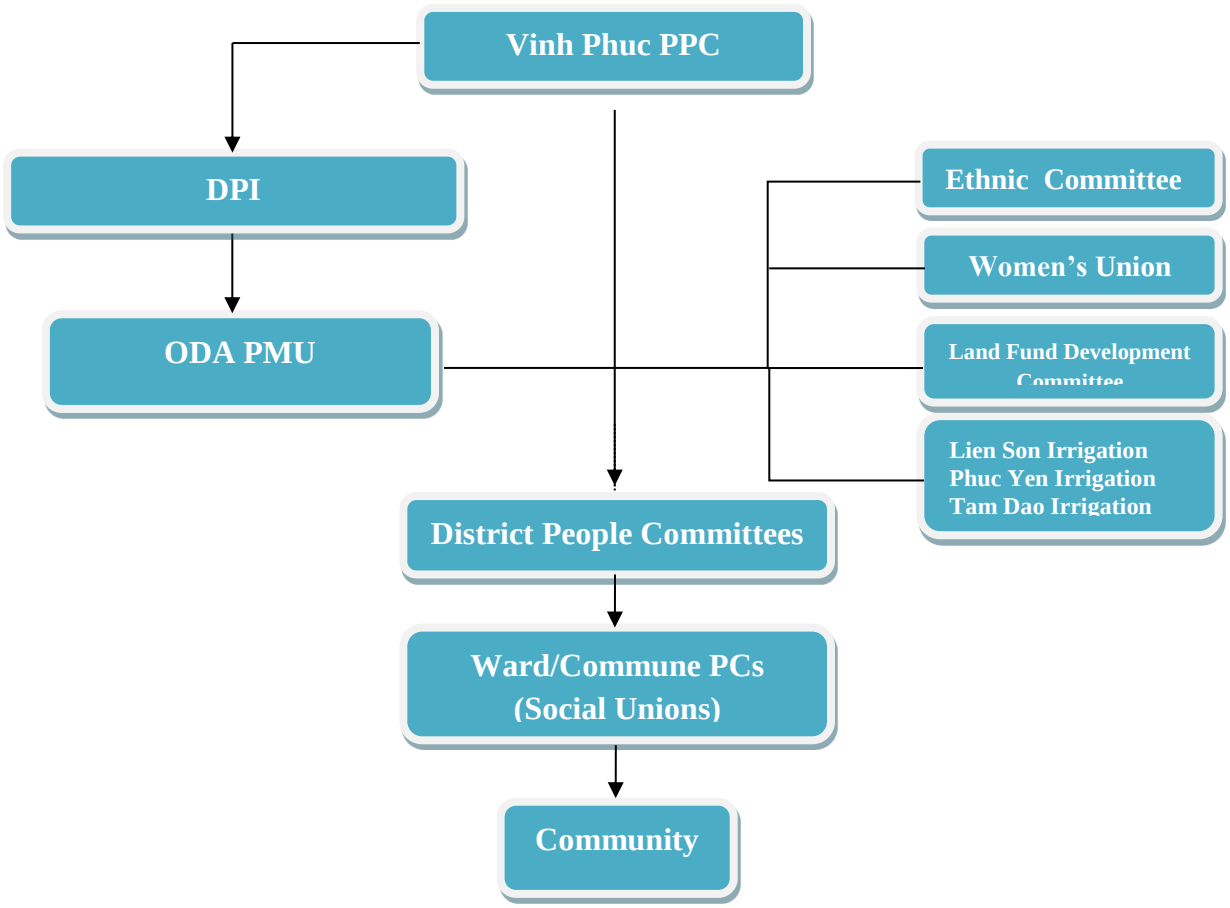
Figure showing structure of stakeholders involving in the project is presented bellowed.

3.1.3.2 Roles of Management Agencies

Vinh Phuc Provincial People's Committee: Acts as Executive Agency while Vinh Phuc Department of Planning and Investment is directly under the Provincial People's Committee acts as Project Owner.

Vinh Phuc-ODA PMU was established under Decision 636/QĐ- UBND dated 05 March 2014 on establishment of a unit in Vinh Phuc province for maneuvers, coordination and management of ODA funds, preferential loans from donors (called the ODA Management Unit) on the basis of professional unit model under Vinh Phuc Provincial Department of Planning and Investment; having legal status, seal and account opened at a Bank and the State Treasury. The ODA Management Unit's organization, staffing and operation is under the direction and management of the Department of Planning and Investment - the focal point of activities hosted in the province for mobilizing, coordinating and managing ODA funded projects and projects provided with preferential loans from donors.

Figure 13: Chart of Stakeholder Identification



The site clearance and land fund development committee of Vinh Phuc province was established under Decision No. 34/2011/QD-UBND of Vinh Phuc Provincial People's Committee dated 24 August 2011, undertakes following functions: (i) coordinating with relevant agencies to develop the provincial mechanism, policies and regulations on compensation, assistance and resettlement, site clearance and land fund development for socio-economic development demands of the province; (ii) coordinating with relevant departments, including Department of Planning and Investment, Department of Finance, Department of Natural Resources and Environment and Department of Construction to propose the provincial People's Committee to allocate funds, financial funds, management of resettlement land/housing fund to serve the compensation, assistance, resettlement and site clearance in the province; and (iii) providing guidance and inspection of the compensation, assistance,

resettlement and site clearance done by the Client and the District Compensation, Assistance and Resettlement Council.

Women's Union of Vinh Phuc province is a political-social organization with a 3-level organizational structure from province, district and ward/commune and more than 160 thousand of members. The Provincial Women's Union is operating for equality and development of women, taking care and protecting the legal rights and interests of women, unite, organizing and guiding women to raise their awareness of gender and qualification in all fields to contribute to the implementation of industrialization - modernization of the country, contribute to building and protecting the Socialist Republic of Vietnam. They are on behalf of equality, democracy and legal interests of women, participate in the State management, building the Party, unite, advocating, organizing and guiding women to implement the policies of the Party, laws of the State, contributing to building and protecting the Socialist Republic of Vietnam.

Ethnic Board of Vinh Phuc province was established under Decision No. 2727/2004/QD-UBND of Vinh Phuc Provincial People's Committee on 09 August 2004. This is a specialized agency directly under the Provincial People's Committee (PPC) with the functions of advising the province, assisting PPC in State management state for ethnic affairs. The ethnic committee has legal status, separate seal and account and subject to the direction and management of the PPC as well guide, for Ethnic Committee on professional and jobs related subjects for the whole Vinh Phuc province

Irrigation Companies Limited:

- Lien Son Water Resources Limited Company formerly known as Nong Giang Lien Son management board established on 26 February 1971 under the People's Committee of Vinh Phuc province. It is assigned by the PPC to perform: management and protection of works, water management, economic management, management of subordinate units and irrigation groups under Lien Son irrigation system. The company has five specialized divisions, 10 direct production units and factories, including 06 irrigation units, 01 design survey consulting unit, 01 construction and electro-mechanical unit, 02 electrical pumping stations of Bach Hac and Dai Dinh and 77 base irrigation stations. The key task assigned by the PPC is management of irrigation system including Lien Son rolling weir covering 90 km of primary canal, more than 146 km of secondary irrigation canal; more than 34,000 km of tertiary infield canal; 69 small and medium dam reservoirs; 02 electrical pumping stations Bach Hac & Dai Dinh including total 11 pumping units with capacity of 8,000 m3/h each unit; more than 250 small and medium irrigation pumping stations with a total of 315 pumps having capacity of 540-1200 m3/h plus 50 makeshift pumps having capacity of 1,000 m3/h and more than 100 oil pumps; 02 drainage pump stations Cao Dai and Dam Ca with a total of 13 pumping units, each unit having capacity of 4,000 m3/s; and more than 6,000 bridges, sewers on canal directly serving more than 67,000 hectares of agricultural and aquaculture area in 7 out of 9 districts, cities and towns in the province.

- Phuc Yen Water Resources Limited Company was established on 25 April 1979 formerly from two irrigation stations of Yen Bai and Kenh Tay as a public enterprise in the field of irrigation for agricultural production. The company has 04 functional departments; 3 subordinate units and 10 irrigation stations in communes, wards. Currently, the company has managed 15 various reservoirs (including large reservoirs

such as Dai Lai, Lap Dinh, Dong Cau and Thanh Cap), 34 irrigation pumping stations of various types, 328.34 km of irrigation canals to serve 7,543 hectares of farm land in Phuc Yen town and some communes, cooperatives in Soc Son and Me Linh districts.

- Tam Dao Water Resources Limited Company manages inter-district works with 5 specialized departments and 9 subordinate units - irrigation enterprises managing large lakes in the area of Tam Dao, Tam Duong and Binh Xuyen. Under the enterprises are irrigation stations, technical teams, work dredging and maintenance teams, electric pump management and operation units.

Vinh Phuc Provincial Ethnic Affairs Committee was established by Decision 2727/2004/QD-UBND dated 09 August 2004 of the Vinh Phuc PPC. Ethnic Affairs Committee is a specialized agency equivalent to the Department directly under Provincial People's Committee, undertaking the function of advising and assisting PPC to perform the functions of State management on ethnic affairs

Ward/Commune People's Committees: Ward/Commune People's Committees will coordinate with the PMU to disclose information of the project to the local people, carry out the compensation, site clearance activities; Coordinate with the Construction Contractors, PMU, and Independent Monitoring Consultants during the monitoring of the Construction Contractors. Ward/Commune People's Committees will receive feedbacks from local people regarding their disadvantageous issues caused by the project. Ward/Commune People's Committees play important role in several activities both during the preparation and implementation phases.

3.1.3.3 Roles of Associations and Mass Organizations

The organizations, associations, mass organizations and beneficiaries from the Project play important roles during the implementation of the project.

Political – Social Organizations, like Fatherland Front, Women's Union, Farmers' Union, the Youth Union, the Elderly Union with large force of membership and structure to each population group. The social organizations are in charge of closely monitoring the project implementation process, especially the period of land acquisition and resettlement compensation to ensure conformity with safeguard policies of the WB and the Vietnam's current regulations. The organizations, unions and mass organizations understand issues and feedbacks from people regarding activities of the project during the preparation, construction and putting the works into operation. The coordination among the organizations and population groups in the monitoring work plays an important role in supporting the PMU and Contractors promptly adjust the design, construction activities in order to minimize the undesirable impacts on the lives of the people in the affected area.

3.1.3.4 ***Coordination among Stakeholders***

Recommendations Actions and activities regarding Coordination with Key stakeholders

Taking into account the results of the consultations and activities with people in the area, the following are the recommendations for the Project

One of criteria for the success of the Project is to ensure that stakeholders will be involved in all phases of the project. This objective requires todevelop the Participation Plan. Roles and responsibilities for participation will be assigned for stakeholders as follow:

Table 3.28: Roles of Stakeholders during the project preparation and implementation

Stages / *Agencies*	***Preparation***	***Implementation***	***Management, operation and maintenance***
Community	Participate in the project preparation (discuss and agree with suitable technical options for the project works to be built at wards/communes)	Participate in monitoring through representative of community	Self-manage, operate and maintain the project works;
Ward's authorities	Coordinate with the PMU in implementing tasks suitably with functions at request of the PMU	Participate in monitoring	Manage some work items in the ward.
City People's Committee	Through Department of Planning and Investment/ ODA PMU, coordinate and support the project implementation; Approve FS report, Basic Design and total investment;	Through the Department of Planning and Investment/ ODA PMU to coordinate and support the project implementation; Approve the Bidding documents and results of selecting Bidder	
Ethnic Committee Woman union	Co-ordinate with consulting agencies to screen potential impacts and propose solutions.	Based on estimated budget for action plans to assist implementation agencies to organize proposed activities;	Participate in community unions to manage, maintain project drains/ works
- Urban Management Office - Lien Son, Phuc Yen and Tam Dao Irrigation Companies	- Coordinate with technical units to select design options suitable with status and planning of the province	- Coordinate with the Construction Contractor to develop an appropriate construction plan, minimizing impacts on production of local people.	- Lien Son, Phuc Yen and Tam Dao Irrigation Companies shall be responsible for managing, operating and maintaining works under Component 1 (embankment, culverts, pumping station and inlets/outlets) - District Urban Management Office shall be responsible for managing and maintaining works under Component 2.
- DONRE	Preside over the	In coordination with	In coordination with

Stages / *Agencies*	***Preparation***	***Implementation***	***Management, operation and maintenance***
	appraisal Appraise procedures for land acquisition Appraise the environmental impact assessment	stakeholder to monitor the implementation of Environment Impact Assessment; Land Acquisition..	stakeholder to monitor the implementation of EIA during operation phase
- DOC	Participate in appraising FS, Basic Design reports, total investment and cost estimate	Checking before acceptance of physical construction works	Technically manage the construction work during operation phase.
- DOF	Appraise costs and unit prices	Checking before acceptance of financing and accounting matters	Arranging fund for O&M
- State Treasury of city	Allocate fund according to investment phases		Providing fund for O&M
Contractors, Consultants	Prepare construction survey report, FS, Basic design reports, construction engineering design and cost estimate	Participate in the construction supervision	
Construction Contractors		Carry out the construction	

3.1.4. Patterns of social organization

According to the Constitution 2013, land is public property, owned by all the people in Viet Nam, and represented and uniformly managed by the State. In line with this, land will be defined and allocated for use by its purpose in in accordance with Land Law 2014. Under this project, lands that are typically managed by government (under a land use right certificate/document) include river, lake, damp, agricultural land, forest. However, the government may allocate part of these lands to local peoples for long-term use – under the land use right certificate, or rental contract. Most of the affected land under this project are under use by local peoples, such as agricultural land (for rice farming), and part of the lake (under lake rental contract for aquaculture).

Relating to social organization, during the preparation and implementation of the project, Vinh Phuc PPC acts as Executive Agency and takes full responsibilities for monitoring and directing the project implementation under the supervision and direction of the relevant agencies. The ODA PMU will, on behalf of the Executive Agency, manage all the project's activities.

The implementing agencies include the relevant Departments, People's Committees of districts, People's Committees of wards/communes and its political – social organizations (*Fatherland Front, Women's Union, Farmers' Union, the Youth Union, the Farming Union*) and communities in the project area.

3.1.5. Consultation and Participation Strategies

3.1.5.1.Stakeholder Communication, Consultation Strategies

Main objectives of the communication strategy is ensure the affected communities, households, local authorities, relevant agencies to be provided with information about the project, consulting about selection of technical options, potential impacts on land, income and non-land assets. Information disclosure plays an important role in promoting the progress of the project during the implementation, preparation and operation of the project with the consensus of communities, local authorities and relevant agencies. This will minimize possibility of conflicts and risks, increase investment efficiency and social significance of the project.

The overall objective of the Communication Strategy at local level is to ensure that the designs and implementation methods of the components are socio-economically affordable and appropriate

The specific objectives of the Communication Strategy are:

- To disseminate timely information on the subproject components specific to each city.
- To establish two-way information sharing/dialogue mechanisms with stakeholders.
- To raise public awareness on environmental protection through focusing upon
- Wastewater management, solid waste management and "greening industry".
- To change behavior regarding gender equity.

However, during the implementation, there are still some risks and challenges of the Communication Strategy, including:

Local authorities:

- Not enough attention paid to women, illiterate people and ethnic minorities.
- Information and consultation meetings often exclude the poor.
- Weak skills and capacity of local staff to conduct Communication Strategy activities.

Community:

- Women often face heightened cultural barriers, and the traditional gender relationships and time constraints restrict their participation in consultations and decision-making
- Vulnerable groups like the poorest people, the disabled and some ethnic minorities, have no time or lack means to attend meetings or to access mass media.

Information-Education-Communication (IEC) material: Lack of locally relevant IEC-material, and few materials in main ethnic minorities' languages

Mass media: Limited resources of provincial mass media (radio and TV) to produce specific local programs.

Main groups of stakeholders have been identified as being involved in the Communication Strategy:

- Local government, i.e. the PMU that will have the overall responsibility for the implementation of the Communication Strategy.
- Civil society (Women's Union, Youth's Union, and Veterans' Association): will be in charge of information dissemination and awareness raising campaigns.
- Beneficiaries from the subprojects and their outcomes, including indigenous people, poor and vulnerable groups.
- Local media that will develop and disseminate IEC materials.
- Private sector whose small and medium sized enterprises can benefit from business opportunities linked to infrastructure improvement.

The messages must appeal to the target stakeholders and be simple to facilitate understanding by people with low education levels. Messages will be tailored to the specificity of the local communities, i.e. with reference to gender, poverty and ethnicity aspects. The language used in communication activities should be Vietnamese or ethnic minority language (Hmong etc.) based on a language understanding assessment of the target groups. The majority of the communities can understand Vietnamese proficiently. The materials will be pre-tested before their broader use.

The one-way information messages will focus on the key project benefits, project implementation phases and the impacts – both positive and negative – on the communities, and on the expected participation of the communities.

The mechanisms to ensure information sharing and dialogue with the communities will be developed through:

- Elaborating a consultation method in accordance with the traditional culture of the locality, and by taking gender, poverty and social safeguards measures into account.
- Designing consultation activities that maximize the participation of vulnerable peoples to ensure that local concerns are addressed during implementation.
- Providing a feedback mechanism to the affected communities ensuring their views are incorporated into project preparation and implementation.
- Identifying the channels of consultation that are preferred by the communities.

The Communication Strategy activities will be organized in cooperation with the Ward/Commune People's Committees. The responsibility for implementing the strategy will be shared between several stakeholders:

- The PMU will have the overall responsibility for updating and implementing the Communication Strategy and will be in charge of the activities targeted at the private sector.
- The Women's Union will support the dissemination of information and conduct awareness raising activities on environmental sanitation practices, including cooperation with schools to educate children, and on strengthening gender equality.
- The local media will produce IAE materials: print materials, newspapers, radio and TV programs, web, etc.

To fulfill the tasks, capacity building activities will be organized as follows:

- PMU officers in charge of Communication: Training in communication skills.
- Women's Union: Training in communication skills of community women members.
- Key Women's Union members: training in gender equity through applying a Training of Trainers approach (ToT).

These stakeholders will receive the support from the national and international Institutional Specialists as well as from the national and international Social and Gender Specialists.

3.1.5.2.Resources Required

The resources required for the implementation of the Communication Strategy refer to the cost of the Communication Strategy activities that will be covered by the Capacity Building Program.

Table 3.29: Stakeholder Communication and Consultation Strategy

Objective	Key Risks / Challenges	Main Stakeholders	Messages	Means of Communication (Channels /Languages /Activities)	Timeline	Responsibility	Resources (Human, $)
1. To enhance project benefits and mitigate potential negative impacts, through timely information on the subproject components and potential social and economic benefits, particularly for the poor, women, and ethnic minorities.	Not enough attention paid to women, illiterate people and ethnic minorities. Poor excluded from information meetings. Limited/lack of locally relevant IEC-material and TV-radio programs.	PMU Women's Union. Subproject beneficiaries Local media Local private sector.	Schedule of implementation phases in different areas. Impacts – both positive and negative – on communities.	Messages tailored to the specificity of the local communities Print IEC materials: fact sheets, leaflets… Media outreach (radio, newspaper, TV, web, etc.) Commune loudspeaker system. Ward meetings. Cultural events. Market days.	From outset of subproject and throughout subproject life in accordance with progress of activities. Outset of project: + Creation of IEC materials on subproject components + Training of stakeholders.	PMU Women 's Union Local media	Funds through the Capacity Building Program. Consultancy cost for National and International Institutional Specialists, and for National and International Social and Gender Specialists.
2. To establish two-way information sharing/ dialogue mechanisms with stakeholders,	Traditional gender relationships and women's time constraints. Vulnerable groups' poor economic means.	PMU Women's Union. Beneficiaries. Local private sector.	Role of stakeholders' consultation in subproject. Present feed-back mechanisms. Discussion on	Ward meetings. Group discussions. Communities Workshops. Local media. Use of participatory methods and tools.	From outset of project and throughout project life in accordance with progress of activities.	PMU Women 's Union Local media	As above

Objective	Key Risks / Challenges	Main Stakeholders	Messages	Means of Communication (Channels /Languages /Activities)	Timeline	Responsibility	Resources (Human, $)
especially on flooding reduction and prevention			preferred channels of consultations.				
3. To communicate wastewater connection benefits, tariffs and special provisions for poor and vulnerable households.	Identifying poor and vulnerable households for communication on special provisions	PMU PIU Women's Union. Beneficiaries.	Project's conditions for providing household connections. Monthly tariffs for wastewater connections.	Ward meetings. Group discussions. Communities Workshops. Local media. Use of participatory methods and tools.	From outset of project and throughout project life in accordance with progress of activities.	PMU PIU Women's Union	As above
4. To raise public awareness on environmental sanitation behavior and hygiene.	Limited/lack of locally relevant IAE-material and TV-radio programs.	PMU Women's Union. Local media. Beneficiaries. Private sector.	Key benefits of environmental sanitation: improved health, pleasant living environment Expected participation of the communities in community	Public meetings, fairs, exhibitions. Workshops, conferences. Group discussions. Separate meetings held for women. Print IAE materials. Radio and TV programs.	From outset of project and throughout project in accordance with progress of activities. Outset of project: + Creation of IEC materials on subproject components + Training of	PMU. Women's Union. Local media.	As above

Objective	Key Risks / Challenges	Main Stakeholders	Messages	Means of Communication (Channels /Languages /Activities)	Timeline	Responsibility	Resources (Human, $)
			sanitation activities		stakeholders		
5. To communicate IR livelihood support measures.	Limited/lack of relevant IEC-material in local (ethnic) language(s) Ethnic minority women difficult to reach	PMU Women's Union. Enterprises' Association Department of Labor, Invalids and Social Affairs	Opportunities for women and men for employment in project civil works Opportunities for fishing or other jobs thanks to flooding prevention	Group discussions. Separate meetings held for women.	From outset of project and throughout project in accordance with progress of activities.	PMU	As above
6. To communicate project's grievance redress mechanism and procedures.	Limited/lack of locally relevant IEC-material and TV-radio programs	PMU Project Implementation Unit	Who and where to contact Types of grievances Procedures: what information to provide, expected time for processing	Print IEC materials. Radio and TV programs.	From outset of project and throughout project in accordance with progress of activities.	PMU	As above

Objective	Key Risks / Challenges	Main Stakeholders	Messages	Means of Communication (Channels /Languages /Activities)	Timeline	Responsibility	Resources (Human, $)
7. To promote gender equity generally and with a particular focus upon women empowerment, women's access to economic opportunities;	No interest from men due to traditional gender relationships. Limited/lack of locally relevant IEC-material and TV-radio programs.	PMU. Women's Union. Local media	Opportunities for women and men for employment in project civil works Awareness raising on risks of human trafficking.	Community workshops and seminars. Technical training. Ward meetings. Group discussions with men and women together. Print IEC materials. Radio and TV programs.	From outset of project and throughout project life in accordance with progress of activities. Outset of project: + Creation of IEC materials on subproject components + Training of stakeholders	PMU Women 's Union Local media.	As above

3.1.5.3 Stakeholders' Participation

In compliance with World Bank's gender, poverty and social safeguard requirement, consultations with local residents are designed to maximize their participation and to ensure that local concerns are addressed during each phase of the project. Particular attention is given to women who are disadvantaged by poverty, and ethnic and female prejudices. Community consultation and participation are done through information sharing, consultation meetings in the form of group discussions, and interactive decision-making.

Issues to be addressed by participation include:

- Assessment of current infrastructure problems in the localities (existing drainage systems and flooding);
- General introduction of the project components with a focus on their potential social benefits, particularly for the poor, women, and ethnic minorities and vulnerable groups;
- Modalities of Indigenous Peoples' and women's participation in the construction, monitoring and post-construction maintenance phases of the activities (including introduction of grievance redress mechanism);
- Presentation of the chosen construction designs and activities implementation framework, including monitoring;
- Monitoring of the community engagement in project's implementation

Participation methods

Participation is ensured during each phase of the project through:

- Weekly and ad -hoc meetings of local government staff in their respective departments.
- Inter-departmental meetings
- Visits to construction sites
- Information-sharing between stakeholders
- Timely information disclosure to communities, including women, disadvantaged and vulnerable groups
- Consultations meetings with civil society, beneficiaries and private sector
- Incorporation of affected communities' views into decision making
- Education and awareness raising campaigns
- Monitoring of subproject components
- Dissemination of elaborated monthly report between local government stakeholders

The data collection methods with the beneficiaries are qualitative through group discussions with key members of the communities, and gender segregated group discussions with poor indigenous people at the project sites.

Timeline for Participatory Activities

To maximize local communities' participation, consultations are continuous process and organized frequently at each milestone of the project, in which:

During *the Preparation Stage*, consultations are useful for the identification of stakeholders' perception of problems and their interests to participate in their coping. This knowledge is also useful to formulate information messages that make sense from the target audiences' point of view. The participation and awareness of local communities in identifying vulnerability and adaptation options also contribute to the community acceptance of subproject activities.

During the public consultations and focus group discussions carried out in August -September 2015 to provide qualitative information and elicit potential beneficiaries' views and concerns related to the various components of the project. As far as practically feasible the Public Consultations were carried out jointly by the social assessment teams.

During *the Implementation Stage*, a second round of communities' consultations is organized. These contribute to the participation of the local communities in the design of infrastructure improvements and plan for community engagement at the component locations. They aim to ensure that the choice of infrastructure options, and the planning, organization, implementation and maintenance of works at the sites are accepted by the population.

3.1.6. Consultation with Ethnic Minorities

During the project preparation of social assessment, 35 households were surveyed with Questionnaire and number of free and meaningful public consultations was carried out in August to September, 2015 in 07 project communes with participation of about 90 EM people. In the project area, EM (mainly San Diu) living in Tam Dao – Basin C - which is upstream of three-river network of Binh Xuyen. Within the project, in Tam Dao there are big lakes (Lang Ha in Ho Son commune, Ban Long and Xa Huong in Minh Quang, Cuu Yen spring and Nga Hoang spring in Hop Chau commune). These lake flows through the springs and Binh Xuyen district to form a three-river system (Ba Hanh, Tranh and Cau Bon rivers).

The results of survey and consultation with local authorities showed that the dredging of three-river system of Binh Xuyen will not involve land acquisition of the population living in Tam Dao, but might be impacted on their livelihood and living conditions. The result of consultation with ethnic minorities taken during the SA is presented in the Annex 4.

3.1.7. Gender Analysis

The survey results of labor distribution in family showed that women still play main role in expenditures and housewife. 77.7% of respondents stated that women are main housewives and 53.9% of respondents stated that women are cleaners of their houses. In the project area, there is gender equality when both genders participate in taking care of their children (59.6%) and earning income (74.9%).

Some family issues are decided by both male and female. 61% of households stated that both wife and husband jointly decide on buying vehicles or houses. 64.3% of spouse decides on borrowing bank's loan or investment, business. 67.2% of spouses decide on studying and occupation of their children.

However, there is gender inequality in ownership of assets. 58% of households stated that both wife and husband subscribe to family assets. 35.3% of respondents stated that spouse subscribe to family assets while 6.8% of female/wives subscribe to assets. Namely:

Table 3.30: Making Decisions On Key Issues Of Family

Items			Basins surveyed					Total
			C	B3	B2	B1	Comp 2	
Decide issues such as buying motorbikes, houses, etc.	Male	Quantity	21	30	35	29	5	120
		Rate (%)	16.0%	13.5%	13.8%	18.8%	6.2%	14.3%
	Female	Quantity	75	42	44	32	15	208
		Rate (%)	57.3%	18.8%	17.4%	20.8%	18.5%	24.7%
	Both	Quantity	35	151	174	93	61	514
		Rate (%)	26.7%	67.7%	68.8%	60.4%	75.3%	61.0%
Borrowing bank's loan for business investment	Male	Quantity	45	34	39	53	12	183
		Rate (%)	39.8%	20.0%	21.7%	36.8%	15.0%	26.6%
	Female	Quantity	22	16	12	8	4	62
		Rate (%)	19.5%	9.4%	6.7%	5.6%	5.0%	9.0%
	Both	Quantity	46	120	129	83	64	442
		Rate (%)	40.7%	70.6%	71.7%	57.6%	80.0%	64.3%
Investment for children's studying	Male	Quantity	43	24	25	38	10	140
		Rate (%)	33.3%	11.3%	10.2%	26.4%	11.4%	17.1%
	Female	Quantity	38	28	37	20	5	128
		Rate (%)	29.5%	13.1%	15.2%	13.9%	5.7%	15.6%
	Both	Quantity	48	161	182	86	73	550
		Rate (%)	37.2%	75.6%	74.6%	59.7%	83.0%	67.2%
Subscription to assets	Male	Quantity	69	122	166	70	45	472
		Rate (%)	59.0%	57.8%	67.2%	44.6%	54.9%	58.0%
	Female	Quantity	27	12	8	5	3	55
		Rate (%)	23.1%	5.7%	3.2%	3.2%	3.7%	6.8%
	Both	Quantity	21	77	73	82	34	287
		Rate (%)	17.9%	36.5%	29.6%	52.2%	41.5%	35.3%

(Source: Socio-economic survey, August /2015, N= 965)

Participation in community activities and local organizations show that there are no gender differences. Both men and women are involved in community meetings (61.8%) and 54.6% participate in local organizations. Men often participate in both activities more than women, however, difference is insignificant. 20.5% of respondents said that men often play main role in community activities while the rate of women's participation is 17.7%. Similarly, the rate of men's participation in local organizations is 25.5% and the rate of women's participation is 19.9%.

Table 3.31: Gender and Participation In Community Activities

Contents			Basins Surveyed					Total
			C	B3	B2	B1	Comp2	
Participation in community activities: public meetings	Female	Quantity	14	36	31	49	18	148
		Rate (%)	11.9%	15.7%	12.7%	31.8%	20.0%	17.7%
	Male	Quantity	44	37	57	28	5	171
		Rate (%)	37.3%	16.1%	23.4%	18.2%	5.6%	20.5%
	Both	Quantity	60	157	156	77	67	517
		Rate (%)	50.8%	68.3%	63.9%	50.0%	74.4%	61.8%
Participation in local organizations	Female	Quantity	9	39	37	56	18	159
		Rate (%)	8.3%	18.3%	15.2%	36.4%	22.0%	19.9%
	Male	Quantity	39	43	64	48	10	204
		Rate (%)	36.1%	20.2%	26.3%	31.2%	12.2%	25.5%
	Both	Quantity	60	131	142	50	54	437
		Rate (%)	55.6%	61.5%	58.4%	32.5%	65.9%	54.6%

(Source: Socio-economic survey, August/2015, N= 965)

In general, in the project area, there is equality between male and female in making decisions on key issues in family and participating in local community activities. Position and role of women are raised and respected.

Gender Action Plan and Gender Monitoring Plan

The survey results by questionnaire with households and community indicated that, job opportunities and adaptability to job change are barriers for women, especially farming women in age of above 40.. The fact is that women mainly participate in agricultural production/aquaculture. The project implementation will affect agricultural land/ aquaculture, thereby increasing risks of shortage of jobs for women. This impact may be minimized if local women, especially women of affected households are offered with opportunities to participate in the programs of vocational training, capacity building and propaganda campaign to raise awareness of sanitation, traffic safety or prevention of social evils. Job priority to women during the project implementation will reduce unemployment for women and create opportunities to increase income for affected households. During the project preparation, women are ensured to participate in community meetings, in-depth interviews as well as household survey at rate of 20-40%[7] .

Income from agricultural production/ aquaculture of households in general and of women in general will be affected during the construction of the project works. Therefore, it is essential to arrange jobs suitable with local women, especially project-affected women. This will enable women to earn income from unskilled labor during the construction. However, job creation is both opportunity and also potential risk due to labor safety and abuse. Some other potential issues including traffic safety, discrimination for unskilled laborers should be considered. Gender issues is considered as a risk and incorporated in the Gender Action Plan and Gender Monitoring Plan that is presented in the Annex 1.

[7] 36.9% female participated in questionnaire survey and ratios of depth –interviews and community consultation meetings accounts for 37.4% and 39.3% respectively

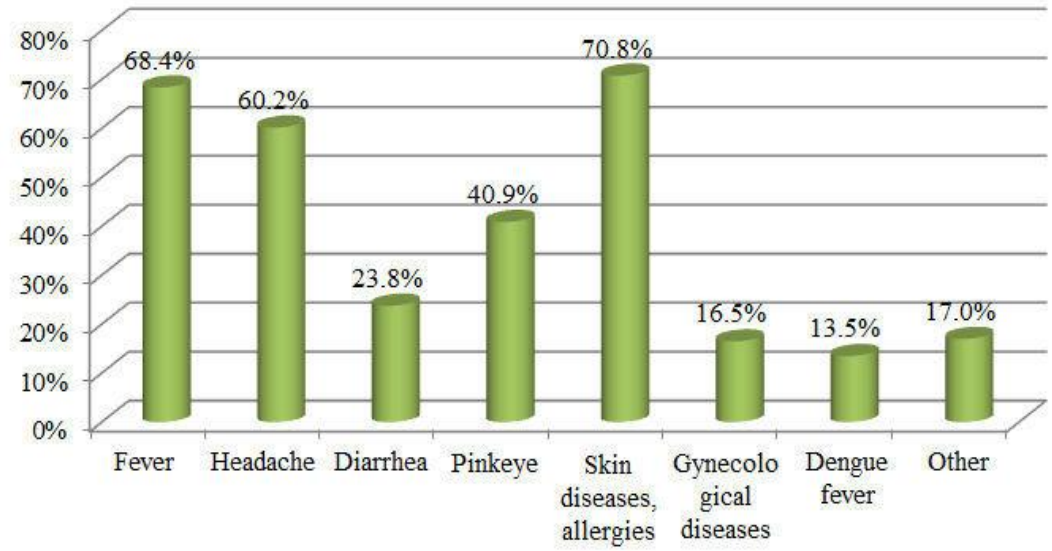
3.1.8. Public Health Impact Assessment and Interventions

3.1.8.1 Public Health Assessment

Diseases

Lack of clean water, frequent inundation in the project basins, uncollected garbage in residential areas... have become the causes of diseases, threatening human health. Common diseases are diarrhea, cold, fever, dengue fever, hand-foot-mouth disease, pinkeye... catching hundreds of people in project area every year. The main cause is still parasite, disease-borne insect growing in contaminated water, transmitting to humans through eating and daily activities. The survey result showed that 46.2% of the households responded that there have been people suffering from disease in their family in the last two months. Following is the details of diseases the households have had in the last 2 months.

Figure 14: Diseases Caught By Families' Members in The Past 2 Months



In the project area, allergic and skin diseases are the most common ones caught by 70.8% of the households, followed by fever and headache - two common diseases in the community with relatively high proportion of households suffering from (68.4% and 60.2% respectively), diseases related to pinkeye (40.9%), diarrhea (23.8%)... The project basins are flooded annually, so the proportion of people suffering from diseases related to water there will be higher than that in non-flooded areas, especially for diseases like allergies or skin diseases...

The households surveyed said that these diseases are primarily caused by water pollution and flooding in the rainy season (66.8%), followed by unhygienic foods (23%), cramped shelter (7.2%), unclean private hygiene (8.1%)... Thus, it is essential to invest in the project work items that the people are expecting.

Current Situation of Health Services

Generally, all communes/wards in the project basins have qualified health centers that meet the national standard for communal healthcare for the period 2011 - 2020. Health stations of communes and wards are built solidly, provided with equipment and physicians who are well developed in terms of both quantity and quality. The commune/ward health stations are considered the initial healthcare facility for the residents. However, the people do not come to the stations for health check and treatment very often. The stations are often used for examining common diseases and for

immunization, regular checkups for children and provision of medicines to policy people and the insured persons. When having a disease, the people often go to prestigious facilities, hospitals, polyclinics, rather than access to health centers.

Disease Prevention Propaganda

In the project basins, disease prevention activities have been conducted fairly well, the information has been widely delivered to the residents.

The survey result showed that 82.7% of the households responded that their locality organized disease prevention propaganda activities to the people. The propaganda activities conducted by the locality were for preventing diseases related to respiratory, skin diseases (76.7%), HIV/AIDS (76.5%), sexually transmitted diseases (63.1%) and family planning dissemination (72.5%). Among the project basins, there were no significant differences in the disease prevention propaganda to the people. These are frequently flooded areas, so the prevention propaganda of diseases related to water such as respiratory diseases, skin diseases is often held widely by the local authorities so that the people can actively prevent the diseases.

Table 3.32: Propaganda against Diseases Held In Localities

Propaganda campaign		Basins surveyed					Total
		C	B3	B2	B1	Comp 2	
Sexually transmitted diseases	Quantity	75	148	206	130	50	609
	Rate (%)	46.6%	55.2%	76.6%	76.9%	51.0%	63.1%
Respiratory-related diseases, skin diseases	Quantity	116	192	216	137	79	740
	Rate (%)	72.0%	71.6%	80.3%	81.1%	80.6%	76.7%
HIV/AIDS	Quantity	105	194	225	143	71	738
	Rate (%)	65.2%	72.4%	83.6%	84.6%	72.4%	76.5%
Family planning	Quantity	111	182	225	125	57	700
	Rate (%)	68.9%	67.9%	83.6%	74.0%	58.2%	72.5%

(Source: Socio-economic survey, 08/2015, N= 965)

3.1.8.2 Proposed Interventions and Activities

The project will have a negative impact on public health due to dust, noise, pollution, migrant workers during its construction. Therefore, the project needs to raise awareness of the potential impacts and begin for preventive measures and mitigation to minimize risks and potential impacts to public health. However, potential environmental impacts during the construction are unavoidable. Solid waste, dust and noise generated may affect safety and health of workers and community, which will cause potential impacts on local social security. In addition, during the construction, the transportation of materials may increase risks of traffic accidents and hinder daily travel of residents and damage to local roads, waterway, increase conflicts in using water for irrigation and domestic purposes. To minimize impacts during the construction, the contractors should disclose the construction schedule, at the same time; install fully signals at the construction areas to ensure safety for residents.

Beside environmental impacts to community health during the construction, the project implementation also causes risks of spread of infectious diseases.

Risks of spreading Sexually Transmitted infections (STIs) may be caused by the project for the following reasons: (i) existing dissemination and infection rate; (ii) community's knowledge about infection ways and prevention measures; and (iii) presence of international/outsourced laborers. In the fact, the results of consultations at project districts/communes showed that local people are regularly provided with information about STIs by medical officials in coordination with Family planning division/ Ward/commune Women's Union. In addition, provision of condoms in these disseminations of information about STIs.

Mitigation measures of risks of spreading STIs during the construction of project items should be taken. These measures include raising awareness of STIs for benefitted/affected communities as well as workers. The project should also link to existing initiatives to raise awareness of prevention measures. These prevention measures include:

- The construction contract will require the contractors to establish a human force to participate in STIs prevention seminar hold by a service provider approved. Seminars will be hold for laborers before commencement of the works;
- Providing condoms at the construction site;
- Basing on community to raise awareness of risks of spreading of STIs, reproductive health, safe sex and human trafficking.

For detail, Community Health Protection Plan is presented in Annex 2.

3.2. Potential Impacts

3.2.1. Positive impacts

VPFRWMP Project is to provide sustainable water environment for long-term socio-economic growth of Vinh Phuc province. Specifically, the project will focus on ensuring flood control in central basin of the province and prevent the rapid degradation of surface water quality. According to the overall urban planning of Vinh Phuc province by 2030 and vision to 2050, Vinh Phuc Province is divided into three areas: urban, industrial and services area; (2) Area for agriculture, forestry and fisheries development; and (3) Area for nature conservation and tourism development. Of which, urban, industrial and services area covers the entire Vinh Yen city, part of Phuc Yen town and part of Binh Xuyen, Tam Duong, Yen Lac and Vinh Tuong district. This planning creates sustainable prosperity based on building a developed economy city together with improved social life, protected environment meeting standards of urban area Grade 1 and serving as an important role in the key economic zone in the North and of the country.

Thus, The Project is being planned and in the future the core urban center of the province (Vinh Yen city) would become a satellite town to Hanoi capital. The project will create a strong spread given the connection with suburbs (the neighboring districts of Vinh Yen city) of Vinh Yen city which will become urban suburbs of Vinh Phuc city in the 2020s as planned. We will create an urban area with a focus on trees and water surface.

The objective is to take most advantage of nature abundance of lakes and rivers in Vinh Phuc province, by forming a network of greenery and open water surface in the entire urban areas, which will conserve the natural environment and create sound urban environment.

Protect the ecological environment of existing river, creating sustainable development value. Sau Vo lake will be planned with a city park up to urban scale, creating a relaxing space for residents. Along with construction planning of Dai Lai, Dam Vac, Dam Rung lakes, Sau Vo lake will be a key

reservoir to regulate others with peaceful water space and greenery connection network. The place will be as a destination for tourists visiting the city.

This is such an opportunity for renovating a sustainable living environment for Vinh Phuc province, creating attraction and inter-regional and inter-national trade connections. These are favorable conditions for the development of infrastructure and calling of investors to generate resources for sustainable economic development.

Therefore, the basic and key objective of the project is to protect existing ecological environment, environment sanitation of residential areas along rivers, dredging lakes to increase the storage capacity and form chains of modern and urban ecology areas with sustainable ecological systems in Sau Vo, Dam Vac and Dai Lai lakes; This will be a premise for Vinh Phuc to become a new urban area associated with tourism services, improved environmental and landscape and living environments in the suburban areas of Hanoi.

The urban areas and resorts formed around Vinh Yen city will be the destination of the inhabitants from Hanoi who come to live and enjoy tourist resorts here. This will contribute to reduce urban population growth for Hanoi capital.

Short-term objectives of the Project

- Controlling flooding risks, participating in flood absorption for Phan - Ca Lo river basin;
- Increasing flood drainage capacity, water storage capacity and regulating water for Phan and Ca Lo rivers meeting water demands communes along these rivers;
- Improving of ecological environment and forming the regulatory lakes, compatible with overall planning of urban construction of Vinh Phuc province until 2030 and vision to 2050;
- Implementing step by step drainage solution planning for entire Phan and Ca Lo river basin in Vinh Phuc;
- Upgrading infrastructure of rivers, drainage channels in the event of heavy rain causing flooding. Creating trust to attract FDIs into the exploitation of infrastructure and connection with Trans-Asia route of Hanoi - Lao Cai, focusing on attracting investments into the development of Binh Xuyen, Ba Thien, Tam Duong Industrial Zones and inland ICD port.

3.2.2. Negative impacts

Assessment of negative impacts is based on impacts of 03 year-one subprojects (include Dong Mong landfill; Sau Vo detention lake and Sau Vo access road; Improving and Dredging of Three-River Network in Binh Xuyen and Construction of Cau Ton and Cau Sat Control Gates Subproject) and estimated impacts of overall subprojects.

- ***Negative impacts of 03 year-one subprojects are presented as following:***

- ***Dong Mong landfill Subproject:*** The construction of Dong Mong landfill will cause impacts due to land acquisition in the area of Huong Canh Town in Binh Xuyen District. The subproject will acquire 528,624.5 m2 of land belonging to 413 households and Huong Canh Town People's Committees (Town PC). 355 households are severely affected by losing 20% or more of their productive landholdings, 57 households are identified as vulnerable households, including those headed by single women with dependents, poor households, households with the disable, single elderly households, and social policy

beneficiary households.

- ***Sau Vo Detention Lake and Sau Vo access road Subproject***: The Subproject will be implemented in the area of three communes and one town in two districts, namely Binh Xuyen and Yen Lap, of VinhPhuc Province. The dredging of Sau Vo Lake and construction of Sau Vo access road along the lake will cause land acquisition impacts in the area of Binh Dinh and Dong Cuong communes (Yen Lac District), Tan Phong Commune and Thanh Lang Town (Binh Xuyen District). The subproject will acquire 2,229,090 m2 of land belonging to 1,105 households and Commune People's Committees (CPCs) of three communes and one town. All of the households are affected in agricultural land and none of them will be affected in their house or any structure, 563 households are severely affected by losing 20% or more of their productive landholdings; Among the 563, 186 households are identified as vulnerable households, including those headed by single women with dependents, poor households, households with the disable, single elderly households, and social policy beneficiary households.

- **Improving *and Dredging of Three-River Network in Binh Xuyen and Construction of Cau Ton and Cau Sat Control Gates Subproject:*** The subproject will acquire 72,297.6 m2 of land belonging to 398 households and Commune/Town People's Committees (CPCs/Town PC) of eight communes and one town. 54 households are severely affected by losing 20% or more of their productive landholdings. 45 out of 398 households are identified as vulnerable households, including those headed by single women with dependents, poor households, households with the disable, single elderly households, and social policy beneficiary households. In which 42 vulnerable households will lose from 10% of their productive landholdings.

In conclusion, 03 year - one subprojects mainly acquired agricultural land with total 1.916 affected households, in which about 952 affected households losing more than 20% or more of their productive landholdings, but there is no household residential land and business household that will be affected. This sub- project won't involve relocation of affected people. All of the affected people belong to the Kinh ethnic group or the mainstream society of Vietnam.

- ***Negative impacts of remaining subprojects***

Adverse Impacts on Involuntary Resettlement

Screening of adverse impacts on involuntary resettlement indicated that land acquisition as a result of the project is inevitable. Based on the technical information currently available, it is anticipated that out of three (03) project components, Component 1&2 involved in construction and rehabilitation of the rivers, retention lakes, irrigation and drainage/sewerage infrastructures can cause impacts of land acquisition and resettlement.

In the preparation stage, thanks to the close cooperation with the Vinh Phuc PMU and the consultations with relevant local authorities at district/commune levels, the technical consultant (FS Consultant) made attempts in the process of selection and identification of plans and locations of the works, many options of construction design have been proposed. Each of them has attempted to minimize the impacts and the level of resettlement impact to the vulnerable and poorest people.

So far, exact location and size of the dredging area, irrigation and drainage/sewerage systems, landfill have not been identified yet. Thus the estimation of the scope of land acquisition as well as accurate number of households affected by the sub-projects is not exact at this point. Based on the available information, it is expected in Component 1&2 the impacts of land acquisition as below:

Table 3.33: Estimated Project Affected Households

Items/Works	No. of Project Affected Households			
	Total of HHs	Households losing Agricultural Land	Severely affected (>20% of agricultural land)	Households losing Residential Land
Component 1: Flood risk management	**5,863**	**5,850**	**1,561**	**13**
Kim Xa pumping station basin area of 8,640 ha (Basin B1)	**767**	**764**	**114**	**3**
Kim Xa pumping station, estimated capacity of 45m3/s	262	259	39	3
Dredging So and Nhi Hoang retention lakes	335	335	50	
Improving Yen Lap 8-gate culvert		-	-	
Spoil landfill	170	170	25	
Ngu Kien pumping station basin area of 11.000 ha (Basin B2)	**1,365**	**1,355**	**204**	**10**
Ngu Kien pumping station, estimated capacity of 45m3/s	500	490	75	10
Phan river from Thuong Lap bridge to Lac	170	170	25	
Diversion canal from Phan river to Rung retention lake	285	285	43	
Dredging Rung retention lake of 50 ha	-	-	-	
Gathering areas	410	410	61	
Nguyet Duc pumping station basin of 19,700 ha (Basin B3)	**1,815**	**1,815**	**271**	**0**
Nguyet Duc headwork pumping station outlet to Red river, estimated capacity of 75m3/s	1,540	1,540	230	
Phan river from Lac Y to Sat bridge	275	275	41	
Improving Sau Vo culvert	-	-	-	
Tam Dao zone 4, BX, PY (Flv= 32.160ha) (Basin C1)	**0**	**0**	**0**	**-**

Items/Works	No. of Project Affected Households			
	Total of HHs	Households losing Agricultural Land	Severely affected (>20% of agricultural land)	Households losing Residential Land
Component 2: Water source management	**366**	**366**	**55**	**-**
Wastewater treatment plants (10 plants)	300	300	45	
Subsidiary works of wastewater pipeline	66	66	10	
TOTAL	**4,313**	**4,313**	**644**	**13**

***Source*: SA Screening, Sept 2015**

Total households affected by remaining subprojects is about 4,313 HHs, in which estimated that 644 households losing more than 20% or more of their productive landholdings, but there is no household residential land and business household that will be affected. These sub- projects won't involve relocation of affected people.

Given the scope of resettlement impacts, a Resettlement Policy Framework (RPF) will be prepared to establish resettlement principles, eligibility requirements for compensation, valuation methods or other forms of assistance, and describe the legal and institutional framework, organizational arrangements, funding mechanisms, and community consultation and participation, and grievance redress mechanism to be applied to the project during the project implementation. Besides that, Resettlement Action Plan (RAP) for the subprojects will be designed to be consistent with the RPF and submitted to the World Bank for review and no objection before any construction can take place.

Impacts on Ethnic Minority

The potential project's impacts were assessed and evaluative results are based on the basis of consultations and depth interviews with key stakeholders, it is estimated that there are temporary impacts caused by the dredging activities of three-River Network in Binh Xuyen, including temporarily acquired land, temporarily affected income during construction time. However, these impacts will be identified and confirmed when the detailed engineering design is available .

Impacts on None-land Assets (Livelihood and Sources of Income)

Apart from land acquisition, the project interventions will have some impacts, both positive impacts (e.g. reduction of flooding; increasing agriculture production...) and adverse impacts (e.g. reduced sources of income due to loss of agricultural land and temporary loss of income (minor) from fishing activities (Sau Vo, So, Nhi Hoang and Rung retention lakes, changing alignment of existing drainage and sewerage that may cause temporary flooding and water cut; which is summarized as following:

Table 3.34: Summary of Main Social Impacts of Flood Control Component

Basins	Works	Positive impacts	Negative impacts
C	**Tam Dao, Binh Xuyen, Phuc Yen:** Renovation, dredging in combination with embankment of low-lying positions, three-river system in Binh Xuyen district; Construction of Ton bridge; Construction of Sat bridge.	- Dredging Phan river will limit flooding, contributing to economic development and increasing productive land area for two seasons at the area where Phan river passes through; - The area outside dike in Hoang Trung and Hoang Tan in Kim Xa commune is frequently flooded and people cannot cultivate. The placement of disposal site here will raise foundation elevation and limit flooding; Construction of pumping stations at Nguyen Duc, Kim Xa and Ngu Kien basins will reduce water level at Cau river, Ca Lo river, accordingly reducing flooding for not only Vinh Phuc but also whole downstream of Hanoi.	- Aqua-culture households and fishing as secondary income generating activity in Sau Vo, So, Nhi Hoang and Rung retention lakes, who are likely to be impacted, will be involved in public consultations and socio-economic survey. These results are served as basis for calculation of compensation and rehabilitation measures to ensure that their livelihood will not be worse off resulting from the project construction - Risks of unexpected accidents unless warning signs are installed adequately - Increase social evils unless livelihood restoration programs are implemented adequately
B3	**Nguyet Duc pumping station basin includes:** Nguyet Duc head pumping station discharged into the Red river; Sau Vo retention lake and access road; Phan river from Lac Y to Sat bridge; Renovation of Sau Vo culvert; Disposal site in Huong Canh town/ Binh Xuyen district		
B2	**Ngu Kien pumping station basin includes:** Kim Xa pumping station, culverts crossing dike and outlet; Phan river from Thuong Lap bridge to Lac Y; Diversion canal from Phan river to Rung retention lake; dredging Rung retention lake; Disposal site in Vinh Ninh commune/ Vinh Tuong district.		
B1	**Kim Xa pumping station basin includes:** Kim Xa pumping station, culverts crossing dike and diversion canal; Dredging So retention lake and Nhi Hoang retention lake; Renovation of Yen Lap 8-gate culvert; Disposal site in Kim Xa commune/ Vinh Tuong district.		

Table 3.35: Water & Environment Management

STT	Works	Positive impacts	Negative impacts
1.1	Wastewater treatment plants	- Building treatment plants will ensure that wastewater discharged into the environment meets environmental standards.	- Primary agricultural Land acquisition is required for building treatment plants partially and more than 20%., Nor impacts on structures - Limited access to public facilities during the construction,

Other Potential Impacts and Risks

Sexually Transmitted Infections: The Project impact relates to increased risks of exposure to HIV/AIDS during construction and post construction phase due to large volumes of transit traffic along the road. Women are at bigger risk to be posed by HIV/AIDS, road safety than man. Additionally, poor women and female-headed households in the Project area are at risk to suffer economically losing productive assets (houses, business, farm land) due to land acquisition.

3.2.3. Temporary Impacts

Negative Impacts on Project Area's Economic Activity

The general construction activities associated with Project implementation will also direct and indirect impacts of the economic activities within the Project area, particularly, road construction as for the case of the road access to Sau Vo lake; temporary changing alignment of existing drainage and sewerage that may cause temporary flooding and water cut, which require through traffic to take different routes or reducing the number of lanes that can be used; Limiting the sales of businesses along the roads due to land acquisition; Impeding the flow of outside resources into and outside the Project area; and

Dust and Noise Pollution

It is also anticipated that the construction phase, as well as operation, of the proposed project will result in increased dust and noise pollution for the local people.

Outside labor and Social concerns

Many respondents expressed their concern that outside laborer associated with the construction phase, road safety during construction. The people in the Project Area hope that the Project will be implemented with a good management system, thus project workers be managed well to ensure that no conflict between the project workers and the residents in the Project Area.

Assessment of Potentially Linked Project

Vinh Yen City is preserving the landscape of the city, developing ecotourism in combination with goals of green growth and green production promotion. Therefore, investment in green

infrastructure is seen as a prerequisite solution for sustainable development in the region through a comprehensive improvement of living conditions and promoting economic development opportunities in the region and the local community. After phase of Vinh Yen Wastewater Drainage and Treatment Project and Secondary Cities Development Program (Green cities Program), Vinh Yen city, Vinh Phuc province, will help to bring a new face to the city according to the environmental criteria of class II urban under Decision 1909/QD - TTg dated 23 October 2014 of the Prime Minister recognizing Vinh Yen city to become a Class II urban of Vinh Phuc province.

The ADB Green Cities Program, to be implemented from 2016-2021 does not have any investments linked with the WB financed project. The ADB Green Cities Program has an approved SA and PSSA, including measures to bridge the gap between ODA donor and GoV regulation.

In summary, considerable information is available on possibly linked project.. Please see Annex 5 (Social Safeguard Due Diligence Review).

Potential impacts that are not related to OP 4.12 (but is covered by OP 4. 01)

Dong Mong landfills: There are 12 HHs who have temporarily affected by the subproject construction period. However, during project implementation, but any temporary impact, all the impacts will be identified and assessed. Some temporary impact may take place during the disposal process. These impacts include noise, odor, and dusts. It is anticipated that these impact would not result in remarkable adverse impact on the livelihoods of local people. Few households live in the area outside the disposal site, which lessens the impact to local people outside the disposal. In case the impact is reported by local peoples, additional treatment measures (i.e. use of biological chemical) would be considered to de-odor and others as needed.

Sau Vo Lake: Around 12 households which practice aquaculture would be temporarily affected, in about 21 hectares. The magnitude of impact (number of households) could not be estimated at this stage because the scope of impact depends the dredging is carried – on an incremental/phasing basis, to keep these impacts at their minimum. Aquaculture households do not have land use right certificate (the lake is managed by local government as a practice), to extent to which they are affected depends on the agreements they made with local government in their lake rental contracts. In case, aquaculture households are affected, they will be compensated for as per agreements made in the rental contract in observance of the legal agreements that have been made the households (renter) and local government (landlord).There are no adverse impact envisaged for people living downstream the Sau Vo lake given that the impact due to dredging is confined with the construction area. Dredging material will be transported to Dong Mong land filed for disposal and affected water is contained within the lake.

Fishing and Aquafarming

Regarding Sau Vo Lake, by the time of RAP preparation, as the dredging area was not identified the socio-economic survey for aqua farming households was not undertaken. However, the consultation with them was conducted. During consultation meetings, with the aqua farming households they were provided with information on compensation, on the basis of their contract with Thanh Lang Town People Committee. Provisions will be established for support the HHs as indicated in the RPF and RAP for Sau Vo Lake and its access road. The provision for the support required will be detailed and updated with the actual measurement of their losses before the construction commences. Mitigation measures for those farming households are also proposed in the FS with sequential construction methods in small areas in the lake. Given that the construction will be conducted in the dry season HH impacts will be minimized.

Regarding socio-economic profile of these HHs, (i) neither poor, ethnic minority nor vulnerable, ii) belonging to above average income group and having various sources of income: farming, animal raising, salary, hired wage. The socio-economic survey will be conducted when determining support for them before the construction. The survey results for these HHs will be updated in the updated RAP and submitted to WB.

As said before, for aquaculture activities within the lakes, the Government is managing lake surface and all users of the lake have signed rental contracts which are renewed every year. No fishing activity (without contract) is allow in lake. 180 ha are being rented for aquaculture. As such, these households will be compensated for their losses of income in accordance with o their contracts and will be compensated and supported for their temporary loss of income in accordance with the project's RPF during construction period (See Section 3.2.2 in the RPF on how temporary impact are compensated). Within the project area, around 132 households who currently rent lake for aquaculture would be compensated/supported, as mentioned above. For Sau Vo Lake subprojects, (year-1 subproject), only 12 households currently have their contract active be compensated and potentially affected by the dredging of Sau Vo Lake. For others – to be confirmed during project implementation, survey and consultation with potentially affected households to be compensated for when the detailed engineering designs are available during project implementation.

For fishing activities on the rivers, exact numbers of households engaged in such activities have not yet identified since no fishing activities were identified during the survey (dry season). According to CPCs, the number of households fishing on the rivers is small and varies from season to season and is not key income generation activities of the households. Therefore, these households will be identified and consulted (if any) when the detailed engineering designs as well as the dredging location and construction time are confirmed. If there is any impact identified, these households will be consulted and entitled to compensation and support - as project's RPF. Impacts on fishing activities are identified to be minor.

The inland rivers in Vinh Phuc Province are not used for transportation purposes, except for the Red River, through districts of Vinh Tuong and Yen Lac with total length of 41km and downstream area in Me Linh District of Hanoi. The project does not involve construction in the Red River, so there will be no impact on the downstream users of the waterways during construction phase. Because the number of households relying on river fishing is small – as confirmed by the CPC, the impact estimated would be minor. These specific impacts will be assessed before dredging operations take place, and in respective RAPs.

With regards to impact (temporary) related to fishing, aquaculture, a detailed consultation and Social Assessment will be conducted for households that will be affected by the dredging of the three lakes and the river systems. The consultation and detailed SA will be done when the detailed design and the construction measures are available to facilitate the detailed social assessment – both scope, magnitude of the social impact of the subprojects on the affected households, and mitigation measures. These affected households will include those who do fishing and aquaculture activities in the subproject lakes and rivers, and those who do farming in the riparian, which are using lake and river water for their crops. The SA findings will be used to develop plan to address identified impacts on these households, including impacts related to livelihood, and impacts outside involuntary land acquisition, resettlement, among other things.

In terms of graveyard, as part of census and detailed measurement survey, a detailed survey of graveyards in the subproject area will be undertaken during project implementation when the

detailed design is available. The RAP will be updated to reflect findings related to graveyard prior to RAP approval and construction.

4. MITIGATION MEASURES

4.1 Mitigation Measures

Potential impacts and risks in the project as identified in the SA are put into three groups:

Involuntary Resettlement

Potential adverse social impacts due to acquisition of land and other assets will trigger World Bank's OP 4.12. In compliance with the provision of the policy, the project will require preparation of RPF and RAPs for each of the subprojects to address impacts caused by land acquisition. The RAPs will address the relocation and livelihood impact of the Project on directly impacted communities and households. The Vinh Phuc PPC and authorized PMU ensured that any involuntary resettlement will be carried out in accordance with the agreed RPF/RAPs.

To meet the World Bank Policy requirements, payment for all assets (including land, structures, crops, and other assets) must be based on the replacement cost survey. Displaced people's living should be restored to at least the pre-project level. In the community meetings, local authorities expressed their appreciation with regards to the World Bank's policy to restore livelihood of the affected people and to assist poor and vulnerable households.

The Resettlement Action Plan(s) per subproject should also include the special attention to gender and vulnerable group issues in accordance with the WB policy on Involuntary Resettlement. In this respect, the RAPs would also address, to some extent, the vulnerable group, gender and poverty issues particularly among the directly impacted households. The measures in the RAPs should also include provision of opportunities for increased women's participation in decision making and in livelihood training, and ensuring that compensation will be given to both men and women.

Ethnic Minority

The SA confirmed that ethnic minority communities including Cao Lan and San Diu, Nung and Dao are present in the proposed project area and could be potentially affected. A process of free, prior informed consultation with affected EM's communities of the Project during the project design was carried out and will be done for new subprojects to be identified during project implementation to ensure there is a broad community support for the subproject implementation.

EMPF/EMDP was prepared on the basis of a) social assessment prepared for the whole VPFRWMP project, and results of the environmental impact assessment; b) consultation with ethnic minority peoples present in the project areas and c) consultation with key project stakeholders, including Vinh Phuc Provincial's Department of Planning and Investment, Committee for Ethnic Minority Affairs, and the World Bank. These report's objective is to ensure that (i) affected EM peoples receive culturally appropriate social and economic benefits, and (ii) when there are potential adverse effects on EM, the impact are identified, avoided, minimized, mitigated, or compensated for.

Potential Temporary Impact to Fishing and other Economic Activities

For subprojects that involve dredging on the lakes, and or rivers, households who do fishing may be potentially affected during the construction operation. It is anticipated that those relying on fishing

as secondary income generation activities, should be consulted when the detailed design of the subprojects are available, and the construction measures become clear. Effort should be made with regards to construction measures to ensure construction operation are done during the low season when fishing activities are minimal and could not be done to minimize the potential impact. In case, impact is not avoidable, compensation should be provided to the affected households – as per RPF, to ensure their livelihood will not be worsen off as a result from the project construction.

4.2 Social Action Plan (SAP)

Proposed activities in SAP aims to provide assistance for affected households to minimize direcly and indirectly impacts caused by Project, including impacts relating to land acquisition and resettlement. Thus, SAP will not include the budget for compensation and resettlement.

4.2.1 Proposed Interventions

Agricultural Extension Services

There are reported to be serious problem in the lack of skills related to agricultural development despite the economy of the area being dependent mainly on agricultural sector. Many households surveyed indicated poor farming techniques as one of the many reasons for rural poverty among the farming households. Agricultural extension services should be extended to such families with focus on techniques that can be adopted in situations of increasing rural unemployment. Agriculture department should work with local authorities to identify the households that would need to be provided such assistance.

Vocational Training Facilities

There is an urgent need for providing vocational training facilities to households who with unemployed members to ensure that they stay back in the project area and be able to find suitable jobs. Appropriate skill training programs should be designed in consultation with the households taking t into consideration their priorities, needs and education level. The training programs should focus on ensured job provision. In this respect, coordination with potential employers is necessary.

The vocational training schools are managed under the Ministry of Education and Training in the Project Area. These vocational training centers could organize the courses on IT, garment industry, mechanical, electrical, mushroom making, husbandry and other technical assistance on agricultural activities, etc. It has the courses for the high school pupils, even rural household in some extension programs. The courses are from 03 months or 6 months to two years or three years. After training, the trainees would be introduced by the center to many companies, enterprises for employment and with a monthly salary is about VND 1,200,000 to 1,500,000. Almost all the vocational training schools are located in the center of the municipality or provinces.

The skills training should be provided to both male and female in the project area. Besides that, the occupational retraining course design for both male and female to eliminate risk of lost occupation due to project construction. Focus should also be given to the households with handicapped members.

Internal and External Assistance Provided to Villagers

About one-third of the respondents reported that their villages have been provided with some assistance. However, many of the assistance programs reported by the respondents are those that took place in the past, and only a few of them seem to be ongoing today. The main sources of such assistance are the government and local authorities, mainly coming from the People's Committees (PCs) at the commune and village levels, Women's Union, and associations such as Farmers'

Associations in the communes and villages. Other sources, although only a few reported, includes non-governmental organizations (NGOs), Red Cross, and overseas Vietnamese.

The most common type of assistance provided to villagers appears to be micro credit programs for the poor in order to enable them to support their own living by starting business or conducting farming activities, including livestock breeding. Other assistance includes distribution of food and clothing to the poor, agricultural knowledge transfer or training on farming and livestock breeding, assistance in repairing houses, provision of free medicine, and transport improvement. Provision of what Vietnamese call a "house of gratitude", which is a housing provided to the poorest households based on the funds contributed by the government and other residents, was mentioned by several respondents as well. These should be considered during project implementation when the impact become know at households level and when the consultation could be further done to understand clearly the potential impact of severely affected households, and to bring in the support from other governmental program, that from the local mass organization such as Women's Union, Farmers' Association, Youth's Union. Connection with on-going national program such as the Target Program for Clean Water and Sanitation should also be brought to severely affected households, particularly those who are poor and thus meet the criteria of the national program. Effort should be made by local district and commune government to bring the severely affected households into their consideration as potential beneficiaries under the national and provincial development programs.

Sexually Transmitted infections (STIs)

During project implementation, it is anticipated there would a large number of workers would concentrate in the construction sites to support the construction. Prostitution and interaction between the workers and local inhabitant are anticipated. As experience shows from similar construction related projects, the prevalence of STIs among affected workers would increase if preventive measures are not taken to ensure the workers are safeguarded against the contraction of STIs, which include HIV/AIDS. A community health action plan (See Annex 2) is developed on the basis of previous project's experience, and on the basis of the consultation with the communities to ensure the workers are protected and communication of the STI is under control.

To mitigate and address the risks related to HIV/AIDS and other endangering woman may during construction time due to presence of construction worker, HIV/AIDS awareness and prevention awareness program should pay particular attention to women. The project will need to address the needs for better dissemination of information on HIV/AIDS and other risks, such as drug abuse. The HIV/AIDS program should include awareness campaigns at the construction sites and in the communities, developing peer educators and community monitoring combine with the awareness on safe migration, and by community PMU and Woman Union of project communes monitoring and public campaigns.

As part of the SA, a Social Action Plan (SAP) was prepared to ensure that social benefits are maximized and adverse impacts are mitigated, if not avoided. The SAP Framework is presented in the Table 4.1 below.

Table 4.1: Social Action plan Framework for the VPFRWMP

Issues	Objectives/outcome	Proposed Actions	Agencies Involved	Indicators	Notes
Land Acquisition and Resettlement	- AH are compensated according to WB policy and will have their income will be restored; - Landless households will receive plot in serviced resettlement site	- Prepare Resettlement Plans in accordance with WB Safeguard Policy. - As part of the RPs, income restoration programs (IRPs) will be prepared and funded under Detailed Design Consultant contract	- PMU - Centre for Land Fund Development - Local authorities - Consultants	- Resettlement Plans including IRP are prepared and uploaded on the WB's Vietnam Development Information Center (VDIC) in Hanoi. - Number of Landless HH with secure tenure (HH) - Number of HH who restored livelihoods (HH)	- Estimated cost of the RP (for 03 year 1 subprojects) is 336,128,899,738.68 VND, equivalent to 14,986.375.65 USD
Livelihoods Associated with Aqua-culture households and fishing as secondary income generating activity in Sau Vo, So, Nhi Hoang and Rung retention lakes.	- They will be involved in public consultations and socio-economic survey. These results are served as basis for calculation of compensation and rehabilitation measures to ensure that their livelihood will not be worsen off resulting from the project construction	- As part of the RPs, income restoration programs (IRPs) will be prepared and funded under Detailed Design Consultant contract	- PMU - Centre for Land Fund Development - Local authorities - Consultants	- Income Restoration Plan is prepared and uploaded on WB's Vietnam Development Information Center (VDIC) in Hanoi	
Access and	- Increasing flood	- The detailed design will	- PMU	- Increased in square of	- Cost included in the

Issues	Objectives/outcome	Proposed Actions	Agencies Involved	Indicators	Notes
Mobility	drainage capacity, water storage capacity and regulating water for Phan and Ca Lo rivers meeting water demands communes along these rivers; - Improving of ecological environment and forming the regulatory lakes;	incorporate POD concepts such as bicycle lanes, sidewalks and green space. - Technical drawings include access to existing houses/shops during construction;	- Department of Construction - Department of Transportation - Centre for Land Fund Development - Local authorities - Consultants	productive land due to improvement of flooding. - Develop economic condition for project area	Detailed Design Consultant contract for detailed design
Risk of STIs	- Minimize risks of exposure to STIs during construction and post construction phase due to large volumes of transit traffic along the proposed works.	- A STIs Awareness and Prevention Program will be prepared and implemented. - HIV/AIDS awareness and prevention measures to be included in the contractors' contracts.	- PMU - Vinh Phuc PPC, District and ward/communes Woman union - Preventive health Centre - Contractors - Local authorities - Consultants	- STIs Awareness and Prevention Programs will be prepared. - STIs awareness and prevention measures included in the contractors' contracts	- Implementation and monitoring of this activity will be carried out by the detailed design and implementation consultant;
Women	- Gender concerns are to be main-streamed in all project components, as part of the RPs, STIs Awareness and Prevention Program, Income Restoration Strategy, Labor issues, &	- Gender Action Plan to be Prepared	- PMU - Vinh Phuc PPC, District and ward/communes Woman union - Local authorities	- A gender strategy is prepared for the activities stated above.	- See Annex 1 for the full Gender Action Plan

Issues	Objectives/outcome	Proposed Actions	Agencies Involved	Indicators	Notes
	Communication Plan. - Maximize Employment of Women during Construction		- Consultants		
Labour	- Contractors' contracts to include conditions to ensure occupational health and safety; do not differentiate payment between women and men, for work of equal value; prevent use of child labor; and comply with the government's labor laws and related international treaty obligations ; - Maximize Employment of Women and poor HH during Construction	- Contractor's contract have been reviewed to ensure that clauses related to Occupational health and safety (OH&S) and gender equity issued are included - Priority for women and poor HH for unskilled labour;	- PMU - Social unions (Youth union, woman union…) - District Centre for Employment Introduction - Local authorities - Contractors - Consultants	- Clauses related to: i) OH&S; ii) promotion of gender equity and prevention of gender-based discrimination; and iii) prevention of use of child labour have been included in contractors' contracts. - Number of local workers employed by gender - Male and female unskilled workers will receive equal pay for equal work;	- Monitoring of this activity will be carried out by the DDIS consultant - No cost; Part of DDIS monitoring activities.

4.2.2 Implementation Arrangements

The Vinh Phuc PPC will be the owner of the project, through Vinh Phuc ODA PMU, implements the mitigation program, in cooperation with District People Committees, Provincial Department of Labour, Invalid and Social Affairs, Provincial Steering Committee of HIV/AIDS, drug and prostitution, Vietnam Women's Unions, Vietnam Fatherland Fronts and Mass Organizations.

A team of Project Implementation consultants will be engaged in building capacity of the implementing agencies, Women's Union Mass Organization and facilitating the implementation of the program.

4.2.3 Budgeting

All the activities proposed in the mitigation program above would be implemented with national resources, and there are no international technical assistance requirements for these activities. The total cost over five years has been estimated at US$32,600. Beneficiaries of the programs are based on criteria of: a) vulnerability; b) poverty/income; and c) female-headed households. The table below summarizes the activities by component and year.

Table 4.2: Estimated Budget for Proposed Mitigation Program (USD)

No	Content	Unit Cost	Total
1	Gender action plan	1,000	530,000
2	Information disclosure	1,000	100,000
3	Community Health Action Plan	1,000	105,000
4	Participation plan and Stakeholder Communication Strategy	1,000	200,000
Total (VND)			**935,000**
Total (US$ thousands)			**42,5**

5. INFORMATION UPDATING, MONITORING AND ASSESSMENT

The World Bank and PMU should be assisted by a team of social development specialists to implement the proposed social interventions. Selected team of specialists should have experience in implementing skills training,

The monitoring and evaluation of the proposed implementation programs should be done continuously from the project commencement to until the end of at least one year of operation. Independent Monitoring Consultants will be contracted for monitoring of resettlement implementation. It also should be a consultant to monitor implementation of social action plans described above.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1. Conclusion

The Project will generate positive environmental, social and economic impacts during the operational phase. This includes (i) Increasing flood drainage capacity, water storage capacity and regulating water for Phan and Ca Lo rivers meeting water demands for communes along these rivers; (ii) improving of ecological environment and forming the regulatory lakes, compatible with overall planning of urban construction of Vinh Phuc province until 2030 and vision to 2050; (iii) implementing step by step drainage solution planning for entire Phan and Ca Lo river basin in Vinh Phuc; (iv) upgrading infrastructure of rivers, drainage channels in the event of heavy rain causing flooding and (iv) creating trust to attract FDIs into the exploitation of infrastructure and connection with Trans-Asia route of Hanoi - Lao Cai, focusing on attracting investments into the development of Binh Xuyen, Ba Thien, Tam Duong Industrial Zones and inland ICD port.

The alternative design were reviewed carefully. However, involuntary resettlement is inevitable. It is estimated that 6.229 households could be affected throughout project life, of which an estimated 1.916 would be affected households under the three year-one subproject and 4.313 affected households under the remaining subproject. None of EM peoples are potentially affected as a result of permanent land acquisition although some 20 EM households could be potentially temporarily affected during the construction of the Binh Xuyen subproject as a result of land acquisition and possible fishing activities.

6.2. Recommendations

The main negative social impacts related to the project includes: i) involuntary resettlement; iii) loss of livelihoods; iii) impacts on vulnerable groups; iv) impacts on safety and health.

These impacts will be mitigated through a number of plans and programs prepared for the Project:

- Resettlement Policy Framework
- Ethnic Minority Policy Framework
- Resettlement Action Plan;
- Ethnic Minority Development Plan
- Social Action Plan
- Gender Action and Monitoring Plan
- Community Health Action Plan
- Stakeholder Participation Plan

The PMU will be in charge of the implementation of these plans and programs and will ensure appropriate implementation in order to minimize negative impact to livelihood of local people, ppropose PMU to develop micro finance programme, agricultural Extension Services and training course on business development skills for affected households.

This social assessment will be updated during detailed design to take into account the possible changes in design.

ANNEXES

Annex 1: Gender Action and Monitoring Plan

A.1. The need of Gender Action Plan (GAP) in the project

Gender issues are social issues which are closely related to the cultural characteristics of each different community. Unlike other issues, gender issues are closely related to the values and social norms that existed long ago. Changing concepts and social values is a difficult job. In fact, local managers and community show little interest in this problem. Central region is influenced by the old feudal regime, the man's thoughts which heighten the position of men in the family and in society. This is a big challenge to bring gender into the activities of the project, particularly on the issue of gender mainstreaming in PIM activities.

The survey and analysis on gender related issues show the situation of gender in the context of participatory flooding controlling and water management in Vinh Phuc province, where the flooding management institution was not completed at all level and challenges in infrastructure investment and management quality affecting economic benefits of project. These issues require development of suitable GAP in the scope of Project This plan will strengthen and promote investment efficiency of project through enhancement of community's awareness on gender equality, gender development and gender mainstreaming in investment, design, management, operation, safeguard policies, resettlement, institution improvement, PIM and agriculture support activities.

A.2. Objectives of GAP

Purpose

To develop a gender action plan for the activities of the project components to enhance gender awareness, gender equality and gender mainstreaming in participatory irrigation management; improve the efficiency of investment.

Objectives

GAP aims to achieve the goals of gender based on the findings of gender and expected activities within the project components to achieve the gender development and mainstreaming goals of the project. GAP also includes identification of appropriate steps, time frame, implementation measures and indicators to be achieved by each of the activities to achieve the set objectives.

A.3. Developing principles, methods and approaches

A.3.1. Principles of developing GAP

- Opportunity to join the project and share the benefits of equality between women and men;
- Approach for the target audience of women, especially poor women;
- Set out the gender indicators for monitoring and evaluation;
- Create conditions for an enabling environment to support capacity building and participation of women at all stages of the project activities besides gender minority development plan;

- Increase the participation of women in decision-making bodies at all levels and empower women the community.

A.3.2. Methods

On the basis of the findings from the analysis suggested for development of the GAP to achieve the overall objectives of the project. The GAP was developed by experts on gender, community development and rural development through consultation with stakeholders by participatory methods to assess the project's social impacts and analyze gender situation to understand the environmental, social characteristics and production practices of localities. The consultation process receiving opinions from community and stakeholders by encouraging participation of members to identify community conflicts/disputes in access and use of water, operation and maintenance of irrigation facilities, building roadmap for raising public awareness, actively participating in gender mainstreaming activities and PIM, explaining the planning methodology, and listen to the opinions of all the comments of the workshop, on the basis that to propose the GAP.

Application of Participatory Rural Appraisal (PRA) to analyze threads, opportunity and plan related to gender, including agricultural production, water use, education, income, improvement of agricultural production and livelihood of women.

A.3.3. Approaches and scope of work

Participatory approach "Community involvement" is the process in which the groups of the community participate in the planning, implementation, management, use and maintenance of a service or a equipment or operational scope. Individual activities are not considered community involvement. Community involvement is a process by which the state authorities, organizations and community involve with getting some specific responsibilities and conduct activities to provide specific services (management of irrigation systems and water distribution...) for the community. The involvement of the community is to ensure that people affected by the project are involved in project decisions. The involvement of the community is to find and mobilize the resources of the community, thereby to increase the benefits to the community, reduce costs, increase economic and investment efficiency of the project investment. In gender development activities, improvement of gender awareness requires participation of either men or women. In gender mainstreaming activities, roles of Women's Unions, Farmer's Associations at communal level in monitoring and evaluation of project performance, benefits of project for farmers, women are enhancement of accessibility to water sources, improvement of productive condition, increase of income of farmer, open relationship for women. Participation of the community is search and motivation of community's resources to promote benefits for the community, reduce expenditure, improve economic and investment efficiency of project, creates favorable condition for affected people and beneficiaries to participate in decisions of project.

Cognitive-behavioural approaches: GAP aims to change conception, attitude and behavior of the community (both men and women) in participation in project activities and lead to enhance position, power and benefit of women. Especially, in the first phase of the project, the activities of behavior change communication will be implemented prior to mobilization of the community for the most efficiency.

Equal approach: The action plan on gender for the proposed project primarily seeks to meet gender demand through the direct intervention of the state, more opportunities for women to involve in political and economic process, reducing inequality to men. The action plan on gender is to increase the accessibility and offset of the social services and other agricultural assistance services in the project for women.

Effective approach: Its purpose is to ensure the development of gender mainstreaming activities and PIM through changes in income of women and their families. This approach changes these aspects: production, reproduction and contribution to the community of women and men. This approach aims to increase the efficiency of agricultural production, reduce labor in water activities and operation of irrigation for agricultural production of women compared to men in the present context.

Empowerment approach: This approach is to resolve the problem of minor roles, gender inequality of women in family and society. Through the local associations, women do not only participate (in low level) in project activities related to PIM such as setting up cooperatives, operation mechanisms and the use of irrigation for agricultural production, settlement of water conflicts, monitoring and evaluation of irrigation operation, improvement of income but also involve to discuss and decide on the actions, and female should also be empowered and have definite power.

Scope of work: The scope of activities will focus on: (i) Raising awareness for the policy maker and decision maker, managers, planners and project operators at central and provincial level about the importance of gender analysis, gender development and gender mainstreaming in the PIM activities within the scope of the project; (ii) Encouraging local authorities to support and participate in gender development, gender mainstreaming in PIM activities through training classes, workshops, consultation, or study tours; (iii) Piloting agricultural development models and strengthening small-scale WUAs at grassroots with involvement of women. The research, analysis and implementation of GAP in the remaining subprojects will be continued in the following year.

A.4. Implementing steps

The GAP will be implemented through the following steps:

(i) Identification of gender issues and PIM in the project areas:

- Survey and analysis gender issues to understand the environmental, social situation, production practices and constraints in localities;
- Identify project activities with gender mainstreaming: survey, design, construction, management and social policy, ... mobilization methods for gender participation;
- Identify gender issues in accessing, using, protecting water source;
- Issues in management, operation, maintenance of irrigation structures.

(ii) Resources preparation:

- Assign the expert on gender, PIM, community development, rural development to implement and resolve the gender related issues, gender mainstreaming in PIM activities;
- Develop a roadmap and implementation plan for gender mainstreaming activities and PIM in each locality in project areas;
- Develop technical documents guiding the gender development, gender mainstreaming activities in the PIM;
- Identify the resources (human, financial, infrastructure, ..) at all levels to implement proposed gender mainstreaming activities.

(iii) Implementation:

- TOT training on gender development and mainstreaming with PIM;
- Consultation Workshop to change the perception and gender awareness, gender issues n access to water, PIM and investment activities of project for staff of PMU, design consultants, other technical consultants, contractors, etc.
- Raise awareness and encourage local authorities to strengthen gender mainstreaming activities in plans, programs and socio-economic development of localities, especially the development activities associated with the consolidation, establishment of WUA in the New Rural Program;
- Propagate, raise public awareness, improve community relations in access and sustainable use of water resources, management, operation and protection of irrigation facilities;
- Establish organization to facilitate discussion and exchange through group discussion convened at many levels to build a new consensus rules of the community, develop a participatory action plan, mobilize and connect resources;
- Support for WUA being strengthened or established effectively, prepare production plan, operation, repair and maintenance, management and finance.

(iv) Monitoring and evaluation:

- Assess the effectiveness of management, monitoring and evaluation of gender mainstreaming activities and PIM;
- Monitor changes in awareness, attitudes, behavior, adaptability of community to gender development issues and the results of gender mainstreaming in PIM activities;
- Improve gender development and gender mainstreaming activities.

A.5. Organization

A.5.1. Roles of stakeholders

(i) Ministry of Agriculture and Rural Development:

- Approval of the report on gender analysis and GAP, which show the gender development and gender mainstreaming activities in the components of the project;
- Propagate and guide project management units, localities to implement and participate in activities related to gender and gender mainstreaming in project.

(ii) Vietnam Women's Union, Vietnam Farmer's Association

- Contribute to complete GAP and gender mainstreaming in the activities of the project;
- Guide and encourage local members to participate in the content and activities mentioned in the GAP;
- Coordinate with local authorities, PMU involved in monitoring the implementation of project activities related to gender mainstreaming issues in design, construction, operation, exploitation and maintenance works;

- Communicate with the members to understand and participate actively in the activities of the project, especially women and those with difficult economic conditions, ethnic minorities, thereby contributing to enhance position, voice and ability to benefit from the project.

(iii) PMU

- PMU manage and coordinate the project overall, hire/assign the experts on gender and gender mainstreaming with PIM, manage related activities, support, and coordinate with the localities to implement activities, report, disburse packages managed by PMU;

- PMU implement gender mainstreaming activities in the investment activities of the sub-projects which were decentralized; monitoring, gather the gender actions at the district and commune in the project scope.

(iv) District/commune governments:

- Implement and assign staff to involve in the gender development, gender mainstreaming activities with PIM at locality;

- Manage project at district and commune levels;

- Participate in trainings, consultations and workshops of project;

- Mobilize people in the commune to participate;

- Host the rapid assessment, planning, identify priorities, implement initiatives and implement PIM activities in the commune

- Grantee and manage the investment results of decentralized project;

(v) Contractors:

- Participate in training on gender awareness and gender equality;

- Commitment to the implement project activities at locality no distinction between male and female;

- Manage and implement local activities to avoid adverse impacts on the practices and traditions of indigenous people, especially women and vulnerable people;

- Fulfill the gender mainstreaming activities of approved by project related to the project components.

(vi) Consultants on gender and PIM:

PMU recruits, contract with consultants to assist PMU to perform the gender development, gender mainstreaming activities with the PIM project such as consultants on research, gender analysis, training and community capacity building, PIM, O & M of irrigation works, ... The proposed activities of consultants focus on the activity:

- Gender analysis in the provinces / sub-projects in the project;

- Analyze and identify the objects to impact in the project scope to choose and use the suitable approach for the gender development, gender mainstreaming activities;

- Prepare GAP, guide implementation activities at the local level in order to achieve the investment objectives of the project;
- TOT training for staff of PMU on gender development, gender mainstreaming activities with PIM;
- Monitoring and evaluation of gender development, gender mainstreaming activities.

A.5.2. Action plan

- Develop a detailed implementation plan for gender mainstreaming activities with PIM for community to know, understand, and act together, change conception, adapt to the new rules for accessing water sources, water use and water management, use and protection of irrigation facilities;
- GAP is divided into two phases: Phase 1 (year 1) is implementation of the gender development, gender mainstreaming activities in 03 subprojects and gender analysis in the remaining subprojects on the basis of the lessons learned after the implementation of phase 1.

A.5.3. Activities in the first year

Objectives:

- Information and communication to the community and stakeholders to understand the goals, meaning and content of the investment, to raise awareness of gender equality and gender mainstreaming in irrigation management participation.

Activities:

- Workshops, consultations and raising awareness about gender, gender roles in the investment activities of project for staff of the project management units, IMCs / IMEs, contractors in project area; withdraw experience to widespread implementation in the remaining provinces;
- TOT training on gender development, gender mainstreaming project in project area, complete training materials to train the rest of the provinces;
- Consultation Workshop, encourage consensus and participation of local governments in the development activities for staff at provincial, district / commune;
- Introduction and project activities related to community projects for the area affected by the project (positive and negative) in project area have implemented gender analysis, encouraging the participation of women;
- Promote gender mainstreaming in the construction activities
- Mainstreaming gender into training activities for PMU PIM, irrigation management transfer, O & M at the system level and at the local level and the activities of the project;
- Mainstreaming gender into training activities for capacity management, exploitation and use of water resources, irrigation development, process management, operation, and use of local water support capacity for agricultural production cooperatives and water user community;

- Perform analysis presented in the remainder of the subproject in-depth analysis of the advantages and disadvantages related to the participation of men and women in access to and use of water, operations and maintenance (O & M) of irrigation water dispute resolution and economic issues - the social world in every province;

Targets:

- Staff of PMU, design consultants, technical consultants, contractors, ...;
- Representative of local government, association, the staff village / hamlet;
- WUA and water user in local irrigation scheme
- The legislation on gender equality, gender development
- The documents supports activities to strengthen and establish cooperative organizations for water
- The operation rule, water distribution, O&M, cultivation techniques, crop calendar, crop structure and other related content.

Organization:

Project management at central/provincial level

- Recruit consultants on gender development and gender mainstreaming;
- The consultation workshop with content related to gender and gender mainstreaming activities in PIM (01 per district in the 01 day workshop, participants: Officer PMU, design consultant, technical, contractors, ..., the number of 25-50 people);
- TOT training on gender, combined with PIM project implementation level, district level government representatives, project communes in each province (about 25 people); Develop, provide information materials on the project (flyers, brochures, notebooks ...), the gender issues in the project to the community through meetings and workshops.
- Perform gender analysis in the remaining of the project area
- Develop, provide information materials on the project (flyers, brochures, books ...), the gender issues in the project to the community through meetings and workshops.

Commune/community level

- Through government meetings, community meetings information, advocacy and referral activities PIM, gender mainstreaming activities PIM;
- On the basis of community activities, forms close to the living traditions of community advocacy and awareness-raising activities on gender and gender mainstreaming with PIM activities and communication on use and maintenance protection of water resources, protection of irrigation works, for the service and production planning;
- On the basis of community relations in water use, establish and strengthen institutions in the form of water use in accordance with the local situation: (i) farmers' organizations and the state administration management, (ii) manage shared between farmer organizations and institutions related to the state, and (iii) community-based organizations to manage;

- Strengthening of producer groups and interests in society to promote water efficiency and the distribution of water plus reasonable (in view of the large production of new rural construction);

Outcomes:

- The local communities of the project have appropriate awareness, attitude and action on issues related to gender equality, gender development;
- Gender mainstreaming in project activities;
- Help the community to know and understand about the gender and PIM, the problems that need to be changed in the habits of water use;
- Set up the activities and resources for the gender action plan for the upcoming years.

A.5.4. Monitoring and evaluation

Objectives:

- To evaluate performance, efficiency, impact and sustainability of GAP;
- To create a system of regular feedback and encourage learning and sharing, helping people and stakeholders to learn from the experiences, successes and failures, in order to do better in the future.

Organization:

The communities, governments and stakeholders should participate in setting up the monitoring and evaluation indicators.

- Monitoring and evaluation should emphasize the process of learning and experience. Encourage open sharing among stakeholders, continuous feedback about the results of the decision-making and how to use these methods, the guidelines;
- Need to ensure capacity building and ownership of local communities;
- Monitoring and evaluation should be flexible and applied accordingly depending on the characteristics of each activity and specific needs;

Results of the implementation:

- The coordinator of each component, gender staff and the PMU staff pay attention to make gender mainstreaming (based on indicators and targets of the Gender Action Plan).
- Monitoring staff supervise the implementation of gender mainstreaming plan (in collaboration with the Gender staff), report, evaluate and monitor in relation with gender norms.
- Periodical reports state the results of gender mainstreaming.
- Review the annual action plan and adjust accordingly.
- The gender-specific activities in the next year will be determined and planned based on the gender analysis the results and annual review of the plan.

Table A1.1 Gender Action Plan

TT	Output	Activity	Target/Indicator	Implementing agencies	Means of verification/Report
Component 1:					
A1: Improved flood risk management through structural measures in Basin B (including sub-basins B-1, B-2 and B-3) and Basin C					
1	Enhanced role and benefit of women in the project	+ Women participate in project activities	+ 100% of leaders and at least 30% of female staff contribute opinion + 30% of project staff is female	PMU Social consultants	Opinion survey and summary report
A2: Establishment and assistance of WUAs					
2	Enhanced role and benefit of women in the WUA	+ Setting rules of women participation in organization and operation of WUA	+ 30% of WUA member is female + 100% female leaders participate + At least 30% of female members contribute their opinions and allowed + Representatives of local Women's Union in WUA	PMU Social consultants DPC, CPC WU, FA	WUA's operation rule Member list of WUA
A3: Training and capacity building					
3	Enhanced capacity of women	+ Gender mainstreaming in the training course	+100% female leaders participate +50% female staff of IMC participate	PMU Social consultants	Training report
4	Enhanced knowledge and skill of women in WUA	+ Gender mainstreaming in the training course for WUA members in project	+ 100% female leaders participate	PMU Social consultants CPC WU, FA	Training report
Component 2					

5	Sustainable benefit of women in the infrastructure invested by project	+ Gender mainstreaming in community consultation of participatory design	+ 30% of participants in consultation meeting is female +More than 30% of comments are from women	PMU Social consultants CPC WU, FA	Report on community consultation
6	Restored livelihoods of women affected by project	+ Consultation with women group in resettlement activities + Information dissemination through local Women's Union + Vocational training and career advisory	+ Priority criteria for women in the livelihood restoration + Special support for vulnerable female householders affected by project + Affected women are trained for career	PMU Social consultants DPC, CPC	Social impact report of sub-project Monitoring report Training report
7	Equitable accessing of women to career opportunity related construction invested by project	+ Setting criterion of women involvement in jobs related to project + Setting criterion of women involvement in operation and maintenance of structure invested by project after completion + Setting criterion of equal remuneration for women and men for the same work	+ Criterion of gender in jobs is applied effectively + Women and men have equal remuneration for the same work + Women participate in suitable work with their physical condition and skill	PMU	Regulation document for the contractors, manager of structures Activity report
Support Services for Climate Smart Agricultural Practices					
Agricultural extension service					
8	Participation of men and women in intension activities	+ Gender mainstreaming in extension training	+ 50% of participants in the training is female	PMU Agriculture consultants Provincial extension Centre WU, FA	Activity report

Enhanced Climate-Smart Agricultural Practices					
9	Access of men and women to technology and practice of climate-smart agriculture	+ Participation of women in pilot agricultural models + Gender mainstreaming in farm field schools	+ 50% of participants in the training is female	PMU Agriculture consultants Provincial extension Centre WU, FA	Activity report
Monitoring & Evaluation and Project Management					
10	Enhanced awareness of project staff in PMUs	+ Development and dissemination of gender mainstreaming and communication materials + Gender mainstreaming in communication activities	+ 100% of PMU leaders and staff receive materials + Number of people involved in communication activities in project and ratio of people perceived basic contents	PMU Social consultants	Report on enhancement of gender awareness
11	Training for provincial, district officials on gender and water use	Contents of training course: + World Bank's and Vietnam's policy on gender and gender development in agriculture and rural development + Basic knowledge of gender and gender equality + Gender analysis and gender mainstreaming in water resources activities and rural livelihood development + Building gender indicators for monitoring and evaluation in water resources project + Practicing presentation and report skills	+ At least one TOT training course for each sub-project + 100% of participants perceive basic knowledge and skills	PMU Social consultants Provincial/ district WU	Opinion survey and summary report
12	Enhanced awareness of	+ Training on livelihood, gender, gender equality and prevention of family	+ At least 30% of participants in training is female	PMU	Activity report

	female role for staff of local government, WUA	violence + Gender mainstreaming in community meeting + Communicating activities on project implementation (distribute materials to females/clients at all level)	+ Ratio of men perceiving and expressing positive attitude on gender issues + Increased number of community meetings chaired by women + At least 30% of participants in community meetings is female and 30% of contribution ideas is from female participants + Number of people receiving materials	Social consultants Provincial/ district WU CPC	Report on impact evaluation
13	Project assessment indicators for ensuring women accessing project benefits and their participation in water management	+ Establish monitoring indicators of gender related issues + Determining gender impacts and mitigation measures + Monitoring indicators of number of female participants in irrigation activities and number of female beneficiaries	+ Creation of gender related indicators in the set of monitoring indicators of project + All communes in the project areas are monitored by the gender indicators	CPO, PPMU CPC	Project Operation Manual Summary and assessment of monitoring
14	Gender disaggregated data are observed	+ Training on gender analysis tools for staff of sub-project + Study and analysis of gender in subproject	+ Gender disaggregated data set of project	PMU Social consultants	Report on gender analysis of each sub-project

Table A1.2: Cost estimate for GAP

No.	Training contents	Required proportions of women	Estimated budget
1	Capacity building on social and environmental management of the sub-project, with community involvement	At least 50%	5,000,000/1 course x 7 courses
2	Technical training on Agricultural extension services	At least 50%	20,000,000 mil/1 course x 7 courses
3	Awareness raising on infectious disease prevention and control	At least 50%	5,000,000/1 course x 7 courses
4	Awareness raising on maternal and child health	100%	5,000,000/1 course x 7 courses
5	Training and raising awareness of women about integrating gender action plan in sub-project.	50%	5,000,000l/1 course x 7 courses
6	Training on ILO "Start Your Business" to enable around 950 severely affected households		250,000,000
Total			**530,000,000**

Budget: The budget for this is considered a part of project management budget.

Annex 2: Community Health Action Plan

During the construction period, the trucks and heavy vehicles may generate noise, dust and temporarily affect quality of life of people living near the construction site. The table A.2 below will present/describe potential impacts during the project implementation.

Table A.1: Potential Impacts during the Project Implementation

No.	Impacts	Yes-Level	No	Description of Impacts
1	Noise and vibration	Yes-medium		Noise and vibration will arise from material transport vehicles. However, such vehicles and machinery will be controlled in term of expiry dates, construction times (daytime), and the use of sirens when passing through residential areas. For this Project, the construction location is not near other infrastructure; therefore, there is no impact.
2	Air pollution	Yes-minor		Air pollution may be caused by material automobiles that waste out exhaust fumes and dust during the transportation and handling of materials as well as by dust during the construction. During the transportation, trucks will be covered to prevent materials from spillage and only licensed vehicles are used. In addition, watering the construction sites when the weather is dry and windy will be implemented.
3	Disturbances of rural traffic?	Yes-minor		Building materials as sand, stones, cement will be sourced from local plants of suppliers and will be taken directly to the construction sites.
4	Damage or deterioration of urban roads		No	All materials and equipment are classified for the transportation in accordance with the load of existing inter-village, inter-communal roads.
5	Solid waste caused by digging, clearing trees by construction activities		No	Solid waste caused by digging soil (excess soil), clearing trees or other construction activities (iron scrap bars, rocks, sand, plastic bottles, cement packages) will arise in the process of building. However, all this waste will be collected by construction workers and local people because it is recycled or utilized much for useful works without any adverse environmental effects.
6	Conflicts between	Yes-minor		Construction workers and local people have different incomes, lifestyles and customs.

No.	Impacts	Yes-Level	No	Description of Impacts
	construction workers and local people			However, no major contradictions will arise because people here and workers are sharing the same Vietnamese language for their general communications. In addition, the project employs some local workers for manual works. So, no major conflicts between workers and local people happened.
7	Health and safety for workers and local people	Yes-minor		Accidents may happen during the construction if the safety is not strictly followed: Checking equipment before use, installing sign-boards in dangerous locations (.These accidents may occur not only for workers but also for local people. However, all safety measures for construction are shown in bidding documents and construction contracts, these risks can be limited accountably.

Table A2.2. Trainings on community health action plan during the implementation of the Project

No.	Training contents	Estimated budget
1	Technical training on Occupational Health and Safety	5 mil/1 course x 21 courses (03 communes for each district x 7 district)
Total		**105,000,000 VND**

Budget: The budget for this is considered a part of project management budget.

Annex 3: Participation Plan and Stakeholder Communication Strategy

1. Participation Plan

Consultation and participation of project affected communities and civil society stakeholders are done right through from the project concept, design, preparation and implementation stages. During the project design phase, the exercise involves fully sharing information on the Project with the targeted beneficiary households and communities and affected people. Its purpose is to engage stakeholders on the potential impact and effectiveness of the Project to enhance positive benefits for them as well as mitigate any negative impacts. It also serves to provide them with information about projects and programs including potential impacts, safeguard plans, mitigation measures, and institutional arrangements.

The Participation Plan thus serves as a framework to guide the participation of civil society and organizations that engages with civil social organizations/NGOs during project implementation. The dissemination of project information to stakeholders and affected communities and enabling dialogue of associated needs and preferences can help reduce potential opposition to a project, avoid conflicts that may occur during implementation, and minimize the risk of project delay. Mindful of the above objectives and principles, a Stakeholder Analysis was undertaken to inform the preparation of the Participation Plan by identifying key stakeholder groups, their interest with respect to proposed project interventions, and understanding of local perceptions of problems and issues which the project design proposes to address.

The Participation Plan presented in Table A3.1 below, identifies who are the key stakeholders assisting civil society and representing the target beneficiaries and affected people under the project. It outlines the reasons for their involvement in the project; what mechanisms for participation are to be used to meaningfully engage them; the parties responsible for facilitating the consultation and participation; timing and indicative costs. The Participation Plan together with the Stakeholder Communication Strategy (SCS) are important guiding documents for implementing the project since a significant portion of the total population (80,000 people) in 7 districts/towns of Vinh Phuc are expected to benefit from Component 1 of the Project. Their engagement and participation is crucial to the Project's effectiveness and success

Table A3.1 Participation Plan

Stakeholder Group	Objective of their Intervention	Approach to Participation and Depth	Participations methods		Cost Estimate
Local Government	**Why Included**		**Method**	**Who responsible**	
Department of Natural Resources and Environment (DoNRE)	DONRE is important for involuntary resettlement (review both RPF and RAP)	Collaboration (high)	• Participate in packages of Capacity Building and Strengthening Program • Elaborate guidelines relevant for the environmental issues of the subproject • Monitoring through visit to subproject sites • Monthly and ad hoc meetings with other local government agencies and with local decision makers representing people's interests • Disclose monthly report to stakeholders	DoNRE	100.000.000
Hop Chau, Minh Quang Minh Quang and Ho Son	Ensure that ethnic minorities benefit from the project	Collaboration (high)	• Participate in packages of Capacity Building and Strengthening Program • Monthly and ad hoc meetings with government agencies implementing the subproject to gather information • Organize Information Generation & Sharing meetings with ethnic minorities at milestones of subprojects • Organize Consultation meetings with ethnic minorities at milestones of subprojects	PMU	50.000.000

Stakeholder Group	Objective of their Intervention	Approach to Participation and	Participations methods		Cost Estimate
			• Collaborate with DOLISA and provincial Women's Union • Monthly report disseminated to relevant stakeholders		
Hop Chau, Minh Quang and Ho Son	Ensure that women, poor and vulnerable people benefit from the project	Collaboration (high)	• Participate in packages of Capacity Building and Strengthening Program • Monthly and ad hoc meetings with government agencies implementing the subproject to gather information • Organize Consultation meetings with women, poor and vulnerable people at milestones of subprojects • Collaborate with Provincial Women's Union • Monthly report disseminated to relevant stakeholders	DOLISA Director	50.000.000
Women's Union (WU)	Expertise in Empowerment of Women Large outreach and presence in communities	Collaboration (high)	• Participate in packages of Capacity Building and Strengthening Program • Organize Information Generation & Sharing meetings with women at milestones of components • Organize Consultation meetings with women at milestones of components • Organize awareness raising and	Women's Union	Costs included in Capacity Development budget

Stakeholder Group	Objective of their Intervention	Approach to Participation and	Participations methods		Cost Estimate
			communication campaigns on issues related to implementation and O&M • Organize training sessions on issues related to implementation and O&M of subprojects • Monthly report disseminated to relevant stakeholders		
All beneficiary households with special focus on affected poor and vulnerable households and communities	Design and implementation of the components are adjusted to the local situation, and receive support of the beneficiary communities.	Collaboration (Medium)	• Participation in Information Generation & Sharing meetings at milestones of components • Participation in Consultation meetings at milestones of components • Participation in awareness raising and communication campaigns on issues related to implementation and O&M of components • Participation in consultations that focus on the identification of the forms of message dissemination that are preferred by the communities • Participate in vocational training activities, O&M and employment opportunities generated by the project		

2. Stakeholder Communication Strategy (SCS)

The preparation and adoption of a stakeholder communication strategy is to ensure inclusiveness, transparency, timeliness and the meaningful participation of stakeholders in the project. The SCS promotes select messages targeted at key stakeholders consistent with established communication objectives as to what perspectives; actions and changes should be promoted to ensure the project's success.

Key stakeholders, who are essential to engage to achieve project objectives and lessen project specific risks and challenges, have been identified. Stakeholders include (i) government agencies responsible for the design, management, and implementation of the project (PPC, PMU, DPI, WU); (ii) utility companies who provide essential urban infrastructure services and facilities (District urban management division, Lien Son, Tam Dao and Phuc Yen Irrigation Companies); (iv) residents in wards and communes; and (v) local media. The strategy serves to inform and support community development, enhance government agency capacity to manage project outcome, and enhance project benefits and mitigate negative impacts

Objectives of SCS

- To enhance project benefits and mitigate potential negative impacts, through timely information on the subproject components and potential social and economic benefits, particularly for the poor, women, and ethnic minorities;
- To establish two-way information sharing/dialogue mechanisms with stakeholders;
- To communicate wastewater connection benefits, tariffs and special provisions for poor and vulnerable households;
- To raise public awareness on environmental sanitation behavior and hygiene.
- To communicate IR livelihood support measures;
- To communicate project's grievance redress mechanism and procedures;
- To promote gender equity generally and with a particular focus upon women empowerment, women's access to economic opportunities;

Responsibilities and Resources

- The SCS activities will be organized in cooperation with Women's Union and the Commune/Ward People's Committees. The responsibility for implementing the strategy will be shared between several stakeholders:
- The PMU will have the overall responsibility for updating and implementing the SCS and will be in charge of the activities targeted at the private sector.
- The Women's Union will assist in the dissemination of information and conduct awareness-raising activities on the subjects listed in the GAP, possibly engaging relevant NGOs/CSOs.
- The local media will produce IAE materials: print materials, newspapers, radio and TV programs, web, etc.

To fulfill the tasks, capacity building activities will be organized as follows:

- PMU officers in charge of Communication: Training in communication skills.

- Key Women's Union staff: training on personal value and self-esteem and subsequent training of WU members, applying a Training of Trainers approach (ToT).

These stakeholders will receive the support from the national and international Institutional Specialists as well as from the national and international Social and Gender Specialists.

Resources Required

The resources required for the implementation of the SCS refers to the cost of the Communication Strategy activities.

Table A3.2. Cost estimate for information disclosure

Estimated construction period: 48 months and 40 project communes

Activity	Frequency	Quantity	Unit price	Cost estimate	Expenditure
Broadcast news on loudspeakers about construction activities	once a week during construction process	40 commune	1,00,000 per commune	VND 40,000,000	These costs are included in the contract between the employer with relevant parties
Organize large-scale consultation meeting with commune, district government and households related to construction of the works	once every two month during construction process	40 commune	VND 1,000,000 /1 meeting	VND 40,000,000	These costs are included in the contract between the employer with relevant parties
Stick on the bulletin board to announce information to the commune People's Committee and the people	twice a week/ during construction process	40 commune	VND 5,000,000 /1 meeting	VND 20,000,000	These costs are included in the contract between the employer with relevant parties
Total				**VND 100,000,000**	

Annex 4: Results of Working on Ethnic Minority-Related Issues

No.	Stakeholders	Time	Venue	Participants	Results
1	Provincial Ethnic Committee	8:30AM 26/8/2015	Office of Provincial Ethnic Committee	Representative of Provincial Ethnic Committee	- Screen the area where ethnic minorities are living in Vinh Phuc - Find out cultural identities and festivals of ethnic minorities
2	Hop Chau	8:30AM 26/8/2015	Office of Commune People's Committee	- Representatives of Commune People's Committee - Representatives of Ethnic board under directly Commune People's Committee	- Support the implementation of project since the project will contribute to improve existing drainage system - In this area, there is a large number of ethnic minority people living (San Diu, accounting for 43% of total population). - The project will not affect ethnic minority
3	Minh Quang	14:00 PM 26/8/2015	Office of Commune People's Committee	- Representatives of Commune People's Committee - Representatives of Ethnic board under directly Commune People's Committee	- Support the implementation of project since the project will reduce flooding situation in commune. - In this area, there is a large number of ethnic minority people living (San Diu, accounting for 61% of total population). - The project will not affect ethnic minority
4	Ho Son	8:30 AM 27/8/2015	Office of Commune People's Committee	- Representatives of Commune People's Committee - Representatives of Ethnic board under directly Commune People's Committee	- Support the implementation of project since the project will reduce flooding situation in commune - In this area, there is a large number of ethnic minority people living (San Diu, accounting for 28% of total population). - The project will not affect ethnic minority

Reference the minutes of community consultation meeting for EM people in Binh Xuyen district

CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM

Độc lập - Tự Do - Hạnh phúc

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……, Ngày..30..tháng..10..năm 2015

BIÊN BẢN HỌP THAM VẤN CỘNG ĐỒNG VỀ

KẾ HOẠCH PHÁT TRIỂN DÂN TỘC THIỂU SỐ

Tên dự án: **Quản lý Nguồn nước và Ngập lụt Vĩnh Phúc**

Thời gian họp: ngày ..... tháng ..... năm 2015

Địa chỉ nơi họp: ....Thôn....Bản....Trầu,...Tương.ấy..Bình.Xuyên..Vĩnh phúc

I. Thành phần tham dự

- Ông/Bà....Trương..Mạnh..Sáu.....Chức vụ .....Trưởng.thôn.....
- Ông/Bà....Pó.....Văn..Hiu'.....Chức vụ .....
- Ông/Bà....Lưu..Văn..Tư.....Chức vụ .....
- Ông/Bà.....Dương..Văn..Thứa.....Chức vụ ....Bí thư Chi bộ.....
- Ông/Bà.....Trương..Văn..Thang.....Chức vụ .....
- Ông/Bà.....Trương..Thị..Tú.....Chức vụ .....
- Ông/Bà.....Diệp..Đức..Trăn.....Chức vụ .....
- Ông/Bà.....Trương..Quang..Ngọc.....Chức vụ .....
- Ông/Bà.....Chức vụ .....
- Đại diện cộng đồng dân tộc thiểu số: …….người

II. Nội dung tham vấn

Tư vấn xã hội/DTTS trình bày về:

- Kế hoạch DTTS của WB;
- Những tác động tích cực và tiêu cực của dự án;
- Những chính sách của Chính phủ nước Cộng hoà xã hội chủ nghĩa Việt Nam và địa phương, chính sách của dự án trong vấn đề DTTS;
- Các biện pháp giảm thiểu;
- Tổ chức thực hiện, lộ trình thực hiện Kế hoạch Phát triển DTTS.

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III. Ý kiến thảo luận

Người dân tại địa phương hoàn toàn ủng hộ dự án

1. Muốn chính quyền hỗ trợ vốn xây dựng trang trại chăn nuôi, tạo điều kiện cho người dân phát triển kinh tế theo hướng công nghiệp

- Hiện nay chăn nuôi nhỏ lẻ, để vào khó khăn, khi tập cả vốn
- Sản phẩm làm ra khó tiêu thụ,
- N² hỗ trợ thành lập doanh nghiệp. chủ yếu hỗ trợ SX cho người dân
- Mở các lớp tập huấn kthuật chăn nuôi, trồng trọt nông nghiệp. Tập huấn xong phải có hỗ trợ cho người dân
- Người dân chủ chăn nuôi đã từ rất nhiều, hỗ trợ chỉ là một phần thôi. giúp người dân phần tài chính, thuốc như thú nuôi, hiểu biết đúng.

+ Thắc mắc với đầu tư, hoặc nông tiếp cận người vẫn khó, vốn sẽ khó để mở rộng SX, chăn nuôi.

+ Thị trường tiêu thụ khó khăn, giá cả bấp bênh nên người dân dễ bị thua lỗ

=> Cần thị trường tiêu thụ ổn định

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IV. Kết luận

Chủ trì cuộc họp kết luận:

1, Hỗ trợ vay vốn để mở rộng sản xuất chăn nuôi

2, Hỗ trợ đào tạo kỹ thuật chăn nuôi, sản xuất nông nghiệp

3, Hỗ trợ thu hoạch tiêu thụ

Đại diện Chủ đầu tư	Đại diện cộng đồng	Đại diện tư vấn	Đại diện UBND xã/TT
	Trương Thị Sai	Đỗ Thanh Hải	PHÓ CHỦ TỊCH Nguyễn Văn Toàn

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Annex 5: Social Safeguard Due Diligence Review

Table A5.1 Assessment of Social Perspective for Linked Project

Project	Fund	Project Information	Perceived Social Impacts	Linked to the Project
Secondary Cities Development Program (Green Cities), Vinh Yen city, Vinh Phuc province	ADB	Objective of the program is to promote socio-economic development, poverty reduction in integration with green growth. The program will contribute to building Vinh Yen city to become a green city, sustainable development, high quality, modern and comprehensive urban infrastructure corresponding to a satellite city with green growth economy in the metropolitan Hanoi The study area of the Project is located in 7 wards (Ngo Quyen, Lien Bao, Tich Son, Dong Tam, Hoi Hop, Khai Quang, Dong Da) and two communes (Dinh Trung and Thanh Tru) within Vinh Yen city, Vinh Phuc province. Project duration: 2017-2022	The Project will contribute to improving living environment for residents in the project area (through dredging and landscape conservation of Dam Vac, wastewater collection and treatment and construction of framework infrastructure in university city), contributing to minimize water-borne diseases for residents and minimize impacts caused by climate change; Contribute to promotion of greening-oriented socio-economic development for Vinh Yen city in fields of manufacturing, services and tourism, create job opportunities for local people. Moreover, the construction of university city in the city will attract international and national universities' investments. Perceived social impact of the ADB financed project is inconsiderable, due to marginal scope of land acquisition and of household's livelihood. Other temporary impacts during construction such as limited access to economic activities, dusty, noise...is unremarkable.	The Project is implemented prior to the Secondary Cities Development Program (Green Cities), Vinh Yen city, Vinh Phuc province. The ADB Green Cities Program, to be implemented from 2016-2021 does not have any investments linked with the WB financed project

Assessment of Cumulative Impacts

The SA team conducted a systematic review of related documents, including the Feasibility Study, Hydraulic Modeling, the Environmental and Social Impact Assessment Report, to examine if there are any potentially cumulative impacts, particularly flooding, that may result as a result of the investments of the Project. The review confirms there is no cumulative impact, indicative of unexpected flooding, that could be identified during project preparation stage. During project implementation, when the detailed engineering designs for all subprojects are available, additional review to screen for cumulative impact (flooding) would be confirm and the impact will be confirmed. In case, the investments of the project may be result in unusual flooding to a particular land area, impact assessment will be further done to confirm the magnitude of the impact. If the impact affects adversely the income generating activities and livelihoods of the people, and these impacts (permanent or temporary) could not be avoided, the affected people will be compensated for – as per project's RPF.

Social Safeguard Due Diligence Review

A. Project Background

The proposed project objective is to provide a sustainable water environment for the long term economic and social development of Vinh Phuc Province. In particular, the project would focus on ensuring flood control in the central catchment of the province and halting the rapid deterioration of surface water quality.
The components of the Vinh Phuc Flood Risk and Water Management Project (VP-FWMP) are the following: (a) Component 1: Flood Risk Management; (b) Component 2: Water Environmental management; and (c) Component 3: Project Implementation Support and Institutional Strengthening.

Involuntary Resettlement in Component 1

Under Component 1 - basin B1, the project will alight and dredge about 28km of the Phan river, from the Thuong Lap Bridge, to the Lac Y area. Within the 28km, in the Phan river, a section of about 8km connecting to the Dam Vac Lake, will be financed by the ADB under the project denominated Secondary Cities Development Program (Green Cities), which has been under preparation since February 2015, and expected to be finalized by May 20168. Important to note that when looking into the sequences of activities causing potential resettlement it was confirmed that the two operations would be contemporaneous.
Therefore assessing the significance of the linkage and confirm the extent and significance of the links between the ADB and the VP-FRWMP projects, was recommended by the Bank, through a rapid due diligence, to review and confirm: (i) the sequences of the activities that will be related to land acquisition and involuntary resettlement,; (ii) arrangements and measures adopted under the ADB instruments to address identified gaps between the ADB policy and the GoV one, confirm the defined actions and its consistency with the Bank Policy OP 4.12

B. Assignment Objectives And Methodology

As said above, this due diligence's (DD) objective was to assess the arrangements define for involuntary resettlement activities planned for the 8km of the Phan river financed by ADB, which

[8] ADB is proposing a $176 million loan, with Result Based Lending (RBL) modality to 03 cities of Hue, Ha Giang and Vinh Yen for FY 2017.

makes part of the Phan river rehabilitation subproject to be funded by VP-FRWMP, and confirming its compliance with the Bank's OP4.12 Policy.
Methods employed for the DD included: (a) desk review, including those relevant Bank's proposed project documents, and PSSA the instrument prepared by the ABD for the Results Base Lending that will be financing their operation; (b) exchange information with ADB social safeguard consultants to further know on PSSA preparation process and proposed measures; and c) carry out field observations.

C. Results Of Due Diligence Review

The DD confirmed that at appraisal stage, as per the ADB financed investments that requires land acquisition, a so-called Program Safeguard Systems Assessment (PSSA) was prepared in June to September 2015 and disclosed in October 2015

The preparation of the PSSA involved documents' review, complemented by field visits for a complete assessment of the adequacy of the GoV's safeguard systems pertinent to the Program to ensure that measures for avoiding or mitigating the adverse impacts are addressed.

The PSSA was prepared in coordination with the GOV of Vinh Phuc PPC and Vinh Phuc ODA PMU and in consultation with other stakeholders. The DD confirmed that: (i) ADB and the Vinh Phuc PPC, ensured that safeguards-related actions recommended in the PSSA are well integrated into the ADB project appraisal documents (e.g Program Action Plan) acceptable to Vinh Phuc PPC, addressing the identified weaknesses; (ii) that the financing and institutional arrangements for implementing the Action Plan are adequate including those of involuntary resettlement. The safeguard related actions include measures for monitoring the social safeguard systems performance involving participation, resettlement, compensation, and replacement costs calculation.
The DD confirmed that the PSSA: (i) covers direct economic and social impacts and those associated impacts that occur near the project or area of influence, that result from the ADB assisted investment project, (ii) provides adequate measures to address and/or mitigate all adverse impacts and impoverishment risks including vulnerable population, and (iii) the PSSA application by the ADB project if land acquisition will enable Vinh Phuc PPC to achieve the objectives set out in the Bank OP4.12. Involuntary resettlement is expected to be carried out by Q1/2016.

In sum the DD confirmed that the instruments prepared are in full consistency with the WB policy for the rehabilitation of affected people, and during implementation it recommends that information/reports on involuntary resettlement to be exchanged between the two operations. The ADB has identified the weakness of the GoV resettlement policy and therefore potential spatial and temporal linkages of the two operations count with documents/ guidance and definitions in place to address any potential issues that could arise.

D. Appendix: Summary of PSSA Report Prepared By ADB Project