

**Greater Mekong Subregion East-West
Economic Corridor Towns Development
Project
Lao PDR**

**Poverty and Social Assessment:
Kaysone Phomvihane**

APRIL 2012

Table of Contents

ABBREVIATIONS

1. INTRODUCTION.....	1
1.1. THE PROJECT PREPARATORY TECHNICAL ASSISTANCE	1
1.2. OBJECTIVES AND OUTCOMES OF THE PROJECT	1
1.3. SCOPE OF THE POVERTY AND SOCIAL ASSESSMENT	4
2. DEVELOPMENT CONTEXT OF THE PROJECT.....	5
2.1. NATIONAL SOCIO-ECONOMIC DEVELOPMENT PLAN.....	5
2.2. COUNTRY DEVELOPMENT AND CORRIDOR APPROACH	6
2.3. VISION AND DEVELOPMENT FRAMEWORK FOR KAYSONE PHOMVIHANE	7
2.3.1 <i>Vision Statement</i>	7
2.3.2 <i>Socio-Economic Development Plans</i>	9
3. DESCRIPTION OF THE SUBPROJECTS	10
3.1. IMPROVEMENT OF WASTEWATER TREATMENT AND DRAINAGE STRUCTURES.....	10
3.1.1 <i>Existing Problems and Need for Subproject</i>	10
3.1.2 <i>Components of the Subproject</i>	13
3.2. IMPROVEMENT OF THE URBAN ROADS AND DRAINAGE	14
3.2.1 <i>Existing Problems and Need for the Subproject</i>	14
3.2.2 <i>Components of the Subproject</i>	15
3.3. IMPROVEMENT OF SOLID WASTE MANAGEMENT SYSTEM	16
3.3.1 <i>Existing Problems and Need for Subproject</i>	16
3.3.2 <i>Components of the Subproject</i>	17
3.4. MEKONG RIVER EMBANKMENT PROTECTION	18
3.4.1 <i>Existing Conditions and Rationale for the Subproject</i>	18
3.4.2 <i>Components of the Subproject</i>	19
4. SOCIO-ECONOMIC PROFILE OF BENEFICIARIES	20
4.1. PROFILE OF THE TOWN	20
4.1.1 <i>Physical Features</i>	21
4.1.2 <i>Demographic Characteristics</i>	21
4.1.3 <i>Land Use and Zoning</i>	23
4.1.4 <i>Economic Activities and Employment</i>	23
4.1.5 <i>Services and Infrastructure</i>	25
4.2. HOUSEHOLD SURVEY METHODOLOGY AND SAMPLE.....	28
4.3. CHARACTERISTICS OF BENEFICIARY HOUSEHOLDS	29
4.3.1 <i>Data on Head of Household</i>	29
4.3.2 <i>Composition and Size of Households</i>	30
4.3.3 <i>House Type and Assets</i>	32
4.4. LIVELIHOODS, INCOME AND POVERTY	33
4.4.1 <i>Livelihoods and Income Sources</i>	33
4.4.2 <i>Income and Expenditure</i>	35
4.4.3 <i>Poverty and Vulnerability</i>	37
4.5. ACCESS TO URBAN INFRASTRUCTURE AND SERVICES.....	39
4.5.1 <i>Coverage and Use of Infrastructure and Services</i>	39
4.5.2 <i>Willingness to Pay</i>	43
5. CONSULTATION AND PARTICIPATION.....	46

5.1.	CONSULTATION UNDERTAKEN DURING PPTA.....	46
5.2.	FOCUS GROUP DISCUSSIONS	47
5.2.1	<i>Results of Women's FGDs</i>	47
5.2.2	<i>Results of Men's FGDs</i>	49
5.3.	KEY INFORMANT INTERVIEWS	51
5.4.	SUMMARY STAKEHOLDER ANALYSIS	54
6.	GENDER ASSESSMENT	59
6.1.	GENDER POLICY FRAMEWORK	59
6.2.	CHARACTERISTICS OF HOUSEHOLDS HEADED BY WOMEN IN PROJECT AREA	60
6.3.	WOMEN'S LIVELIHOOD ACTIVITIES, INCOME AND POVERTY	62
6.4.	PARTICIPATION IN HOUSEHOLD AND COMMUNITY DECISION MAKING.....	65
6.5.	ACCESS TO INFRASTRUCTURE AND SERVICES AND WILLINGNESS TO PAY	67
6.6.	GENDER IMPACTS.....	69
6.7.	GENDER ACTION PLAN.....	72
6.7.1	<i>Rationale for the GAP</i>	72
6.7.2	<i>Purpose and Components of the GAP</i>	73
6.7.3	<i>Institutional Arrangements for Implementation of the GAP</i>	79
6.8.	MONITORING OF THE GAP	79
7.	POVERTY AND SOCIAL ASSESSMENT.....	85
7.1.	CONTRIBUTION TO POVERTY REDUCTION.....	85
7.2.	JOB CREATION AND WAGE GENERATION.....	86
7.3.	HEALTH IMPACTS.....	90
7.4.	RISK OF SPREAD OF COMMUNICABLE DISEASES	91
7.4.1	<i>Existing Situation</i>	91
7.4.2	<i>Project Associated Risks</i>	94
7.5.	RISK OF HUMAN TRAFFICKING	95
7.5.1	<i>Existing Situation and Contribution to the Risk</i>	95
7.6.	SOCIAL SAFEGUARDS	97
7.6.1	<i>Involuntary Resettlement</i>	97
7.6.2	<i>IR Impacts of Urban Roads Improvement Subproject</i>	98
7.6.3	<i>IR Impacts of Wastewater Treatment Subproject</i>	98
7.6.4	<i>IR Impacts of Mekong River Embankment Subproject</i>	99
7.6.5	<i>Indigenous People</i>	99

Abbreviations

AH	Affected household
AP	Affected person
CDCP-2	Second Communicable Diseases Control Project
CGS	Country Gender Strategy
CHAS	Centre for Control of HIV, AIDS and STIs
CSW	Commercial sex worker
DAFO	District Agricultural and Forestry Office
DDPWT	District Department of Public Works and Transport
DONRE	Department of Natural Resources and Environment
EA	Executing Agency
EIA	Environmental Impact Assessment
EWEC	East West Economic Corridor
EMP	Environmental Management Plan
ESMU	Environmental and Social Management Unit (of PMU)
GAD	Gender and development
GAP	Gender action plan
GMS	Greater Mekong Sub-region
HIV	Human Immune-deficiency Virus
IEE	Initial environmental examination
IMO	Independent Monitoring Organisation
IDU	Injecting drug-user
LECS	Lao Expenditure and Consumption Survey
LFNC	Lao Front for National Construction
LUX	Grand Duchy of Luxembourg (development assistance)
MAF	Ministry of Agriculture and Forestry
MDGs	Millennium Development Goals
MNCHCP	Maternal Neonatal and Child Health Core Package
MPWT	Ministry of Public Works and Transport
MONRE	Ministry of Natural Resources and Environment
MOH	Ministry of Health
NEC	Northern Economic Corridor
NSEDP	National Social and Economic Development Plan
NTFP	Non Timber Forest Product
PIU	Project Implementation Unit (of IA)

PCCA	Provincial Committee for Control of AIDS/HIV
PDH	Provincial Department of Health
PDPWT	Provincial Department of Public Works and Transport
PMSC	Project Management and Support Consultant
PMU	Project Management Unit (of EA)
RP	Resettlement Plan
SIA	Social Impact Assessment
SEC	Southern Economic Corridor
SNV	Netherlands Development Assistance Agency
STIs	Sexually transmitted infections
TOR	Terms of Reference
UNDP	United Nations Development Program
VDC	Village Development Committee
WVI	World Vision International

1. Introduction

1.1. The Project Preparatory Technical Assistance

1. At the request of the Governments of Cambodia, Lao PDR and Vietnam, the Asian Development Bank (ADB) approved the Project Preparatory Technical Assistance (PPTA) to establish the basis for the proposed investment in priority urban infrastructure and capacity building measures for institutional strengthening in selected towns along two of the transport corridors in the Greater Mekong Sub-region (GMS).
2. For undertaking the PPTA, the ADB engaged the services of Norconsult AS (Norway) which is associated with CADTIS-Consultant Co. Ltd (Cambodia), Norconsult Laos Ltd (Lao PDR), Norconsult Management Services (Philippines), Inc. and Thang Long Infrastructure Development JSC (Vietnam).
3. In Lao PDR the executing agency (EA) for the CTDTP is the Ministry of Public Works and Transport (MPWT) while the implementing agency (IA) is the Provincial Department of Public Works and Transport (PDPWT).
4. For each of the corridor towns, the major outputs of the PPTA involves: (i) the preparation of the strategic local economic development plans (SLEDP); (ii) developing an investment program for priority urban infrastructure which will include a subproject Feasibility Study (FS) for priority subprojects selected for each town; and, (iii) an institutional strengthening plan. These outputs will form an integral part of the Report and Recommendation of the President (RRP) and the Project Administration Manual (PAM). The FS will cover a number of items and aspects, including assessment of safeguard issues. This Poverty and Social Assessment (PSA) is one of the documents prepared to comply with ADB's policies and Lao PDR's law on environmental assessment.

1.2. Objectives and Outcomes of the Project

5. The Corridor Towns Development Project (CTDP) is designed to facilitate the transformation of transport corridors into economic corridors that would attract further investments in economic and environmental infrastructures to spur economic growth and sustained development. The expected impact of the CTDP will result in the corridor towns becoming the nucleus of economic activities, thereby contributing to the emergence of economic growth centers along the transport corridors in the GMS. The outcomes of the CTDP will lead to provision of adequate urban and infrastructure and essential services to facilitate growth and increase urbanization.
6. The concerted program to promote economic cooperation in the GMS was launched in 1992 through joint agreements among the participating countries with the sponsorship of the ADB. The physical attributes of the GMS are largely characterized by the combination of rich natural endowment and human resources with enormous potentials to contribute to regional economic growth. The more than 300 million people residing in the GMS are spread across diverse social and economic terrain but with common endeavors to improve their living standards. GMS is strategically situated in the heart of the South-East Asian continent and is considered a critical land bridge between the emerging and dynamic economies in the East and Southeast Asian countries. In the next decades, this anticipated urban growth in small towns and medium cities - in the existing and new growth corridors will create considerable demands for infrastructure and essential urban

services. The GMS countries envisioned that regional cooperation is essential to establish an economic link through improvements in infrastructure that would trigger increased trade and investments and spur economic growth.

7. The cohesive efforts of the GMS countries and the committed support of the ADB and other financial institutions and donor agencies enhanced the establishment of regional markets, promoted cross-border movements of people, goods and services and more importantly developed a strong sense of collective action for a common economic purpose. Within a span of a decade, development investments were focused on putting in place priority transport infrastructure that forged the link between the GMS countries and stimulated the emergence of economic corridors along these key transport routes.

8. Together with the ADB, the participating national Governments recognized the need to build on the considerable benefits of increased trade and traffic flows along these transport routes. The favourable location of the corridor towns is viewed as a comparative advantage to further boost economic activity given the necessary enabling environment for strategic local economic development plan, investment programs and the strengthening of the institutional capacities at provincial and district levels. The next critical step in the GMS strategic focus demands the transformation of the transport corridors into full fledged economic corridors that would sustain the investment in essential infrastructure, and help contribute to poverty reduction in the GMS.

9. The primary objective of ADB's assistance to the GMS is the sustained increase in trade and transportation and the efficient movement of goods and services across common borders. In this regard, the transformation of transport corridors into economic growth nodes is considered essential in achieving levels of economic competitiveness of the GMS while advocating a strong sense of participation and involvement of a broad base stakeholder in the region. ADB's Regional Cooperation Strategy and Program (RSCP) is anchored on strategic thrusts towards strengthening connectivity and facilitating cross border movement, integrating national markets to promote economic efficiency and private sector development, institutional capacity strengthening as well as addressing critical social and environmental issues.

10. Lao People's Democratic Republic (Lao PDR) is a land-locked country bordering Thailand to the west, Viet Nam to the east, Peoples' Republic of China (PRC) to the north and Cambodia to the south, as shown on Figures 1 and 2.

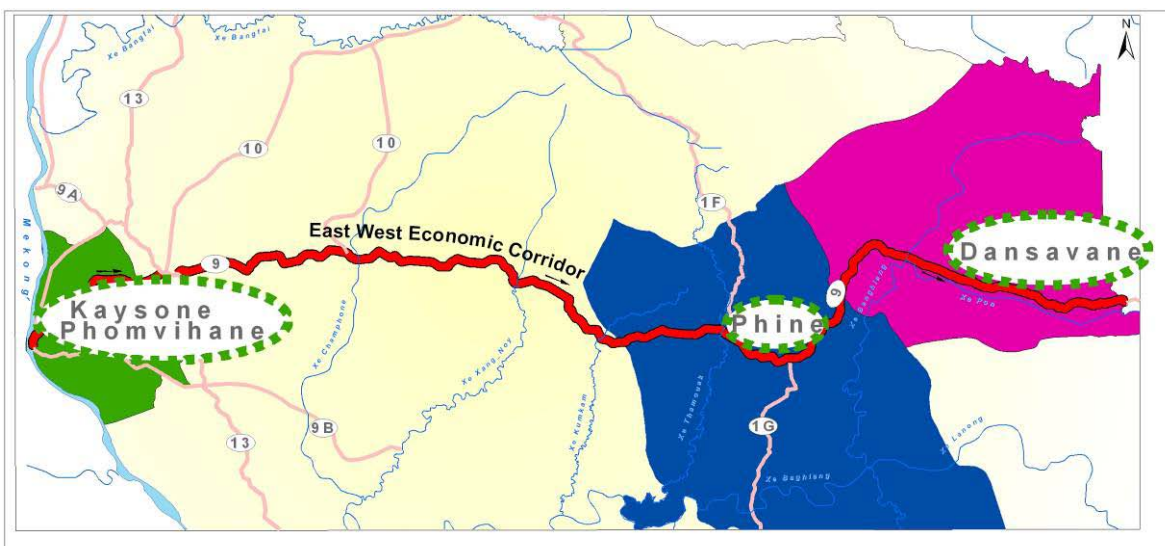
11. In Lao PDR, the three corridor towns of Kaysone Phomvihane, Phine and Dansavanhh are located in the province of Savannakhet. Each town has their respective District Master Plans that were prepared with the assistance of the Provincial Government of Savannakhet and PDPWT. The District plans include the land use and zoning maps and the list of potential development projects and investment programs. During the consultative meetings, district and local officials expressed their priority needs for the improvement and upgrading of the urban roads and drainage systems, installation of wastewater treatment facilities and expansion of sewerage/sanitation systems, and riverside embankment works for both protection and provision of tourism facilities.

12. The key challenges facing the corridor towns arise from inadequate urban infrastructure investments and institutional capacities at local levels to provide essential urban services. The improvement of transport connectivity along East-West Economic Corridor (EWEC) which covers the three corridor towns has resulted in increased movement of people, goods and services. It has also created considerable development pressures on the part of the provincial and district governments to provide sufficient urban infrastructure and formulate a planned development to meet the expected demands as a result of increased trade and traffic flows along the transport corridors in Lao PDR.

Figure 1 – Lao PDR and Corridors



Figure 2 - Location of Kaysone Phomvihane along EWE



1.3. Scope of the Poverty and Social Assessment

13. The PSA presents a description of the subproject area, beneficiaries and affected people, and an assessment of construction and operation stage impacts, as follows:

- Section 1 – introduces the CTDTP by describing the role of the economic corridors within the GMS and outlining the specific objectives of the project;
- Section 2 – provides the context for the CTDTP and describes the development framework of the Government and ADB;
- Section 3 – describes the subprojects to be implemented in Kaysone Phomvihane;
- Section 4 – provides a socio-economic profile of the beneficiaries by setting out some general information about the town and presenting the results of the household survey undertaken;
- Section 5 – gives the results of the various consultations undertaken during the PPTA;
- Section 6 – is the gender assessment which provides a sex disaggregated analysis of the survey results and the expected gender impacts of the CTDTP. This section also provides the project's gender action plan;
- Section 7 – provides the impact assessment which covers contribution to poverty reduction, job creation and wage generation, health impacts, risks of spread of communicable disease and trafficking, and social safeguards; and
- Section 8 – sets out the requirements for monitoring and evaluation of social and gender impacts.

2. Development Context of the Project

2.1. National Socio-Economic Development Plan

14. Economic performance as expressed by GDP decreased to about 5% in 2009-2010 as a result of the global economic crisis. Previously (2001 – 2008) the Lao economy had grown at an average of 6.5% per year, with highest growth of 7.9% being in 2007. While agriculture is the largest contributor to the economy accounting for 45% of GDP, followed by industry (30%) and services (25%), it has slower growth (3.5% per annum) than either industry (12% per annum) or services (7.5% per annum).¹

15. The sixth National Socio-Economic Development Plan (NSEDP)² has clear poverty reduction goals and emphasizes the need for accelerating long-term socio-economic development. The NSEDP focuses on economic growth and linkages to social development through increased competitiveness and building on international economic commitments such as the GMS. The priority sectors for investment identified in the NSEDP include infrastructure, agriculture, health, and education, as these sectors are considered key to realization of the poverty reduction agenda of both Government and its development partners.

16. Specific goals of the NSEDP include (i) expansion of economic opportunities, with emphasis on commercial agriculture, urban and rural development, infrastructure development, and support for small and medium sized enterprises; (ii) improved provision of basic social services with a focus on health, education, and clean drinking water; (iii) improved human security including measures aimed at fostering food security, reducing threats from unexploded ordnance (UXO), and ensuring protection against natural disasters; (iv) enhanced participation by, and empowerment of, the poor; and (v) concentrated efforts to develop the poorest areas through a range of targeted interventions. With these goals in mind the NSEDP envisages growth of average annual growth domestic product (GDP) to 7.5%. The CTD will contribute to the attainment of these goals.

17. In light of the strategic direction and development goals articulated in the NSEDP the Government has identified five priority areas for reform and support through external assistance:

- Export competitiveness;
- Trade facilitation;
- Business environment;
- Capacity building; and
- Trade opportunities for the poor.

18. The CTD supports this agenda through investments in infrastructure, economic services and functions critical to urban development and facilitation of cross-border trade in three towns in Savannakhet.

¹ ADB b; op cit

² Government of Lao PDR, Committee for Planning & Investment; National Socio-Economic Development Plan 2006 – 2010, Vientiane, Lao PDR (2006)

2.2. Country Development and Corridor Approach

19. The ADB's Country Strategy Programs (CSP) for Lao PDR aim to promote sustainable economic development through infrastructure investments. The CSPs of recent years are integrated with the development strategies/frameworks and programs identified for the GMS. With the support of ADB and other development partners, the GMS Program is helping the participating countries achieve the Millennium Development Goals (MDGs) through increased connectivity, improved competitiveness, and a greater sense of community.

20. The economic corridor approach has been adopted under the GMS Program which recognizes that development potentials of specific geographic areas are optimized when infrastructure is planned and developed taking into account the economic potentials of these areas. The base for these economic corridors are the cross-border transport links that open up opportunities for various types of investments to the otherwise remote and inaccessible areas.

21. The primary objective of ADB's assistance to the GMS is the sustained increase in trade and transportation and the efficient movement of goods and services across common borders. In this regard, the transformation of transport corridors into economic growth nodes is considered essential in achieving levels of economic competitiveness of the GMS while advocating a strong sense of participation and involvement of a broad base stakeholder in the region. The key documents formulated to assist and support achievement of these objectives include the GMS Economic Cooperation Program Strategic Framework 2012-22³ and the Regional Cooperation Strategy and Program (RCSP).⁴ The central premise of both documents is regional development through promotion of sustained private sector-led growth (business, trade, investment and tourism).

22. The RCSP is anchored in further strengthening connectivity and trade between the GMS countries. The RCSP for the GMS supports the vision of an integrated, harmonious, and prosperous sub-region and is aligned with the first GMS Strategic Framework and comprises four strategic pillars: (i) improving connectivity to facilitate cross-border movement and tourism; (ii) integrating national markets to promote economic efficiency and private sector development; (iii) addressing health and other social, economic, and capacity building issues associated with sub-regional connectivity; and (iv) managing the environment and natural resources to ensure their conservation and promote sustainable development. The regional cooperation operations business plan for the GMS for 2011–2013 is consistent with the RCSP and is guided by Strategy 2020. The strategy and action plan focuses on:

23. Improving transportation through infrastructure upgrades and feeder road developments that benefit poor households, increasing opportunities to access productive resources, and facilitating trade and raising cross-border traffic to its full potential;

- Creating better commercial opportunities and development of commercial nodes and interchanges (improving facilities in, and access through, port gateways) in areas that have lagged behind growth in other centres;
- Developing an integrated approach to development of business activity along the EWEK in terms of cross-border investment, special economic zones, fast-tracking investment approval procedures, and promoting private sector development;

³ ADB a; Greater Mekong Sub-region Economic Cooperation Program Strategic Framework 2012-22: Background Paper, Manila, Philippines (August 2010)

⁴ ADB b; Greater Mekong Sub-region Regional Cooperation Strategy and Program 2010 - 2013, Manila, Philippines (August 2010)

- Improving access to information on trade flows, and in the tourism sector, consolidate project activities into a master plan (or road map) for developing a comprehensive and integrated approach to EVEC tourism; and
- Identifying social and environmental effects from transport and economic corridor development and mitigating these through implementation of measures and plans to address the issues such as spread of sexually transmitted infections (STIs) and HIV.

24. In Lao PDR the RCSP supports the NSEDP through focusing business development in Savannakhet where it seeks to establish service centers, provide capacity building to support “cluster programs” and value chain development. Savannakhet is considered to be the “weakest link” in the EVEC, the program includes specific initiatives to address this including key infrastructure projects along the EVEC, cross-border activities to enhance competitiveness, facilitation of transport and trade, and linkages between tourism and cross-border movement.⁵ The action plan therefore focuses on four activities; (i) development service centers for small and micro enterprises (SMEs) and businesses in Savannakhet; (ii) the establishment of an SME development fund; (iii) training programs and workshops on SME’s participation in regional and global value chains; and, (iv) mapping the value chain opportunities for SMEs in the EVEC.

25. The CTDP will contribute to the five strategic thrusts identified in the Strategic Framework; (i) strengthening infrastructure linkages through a multi-sectoral approach; (ii) facilitating cross-border trade and investment; (iii) enhancing private sector participation and improve competitiveness; (iv) develop human resources and skill competencies; and (v) protecting the environment and promoting sustainable use of natural resources. In addition the CTDP will support several of the eleven “flagship” programs agreed by the GMS countries including; (i) east-west corridor; (ii) the southern economic corridor; (iii) facilitating cross-border trade and investment; (iv) enhancing private sector participation and competitiveness; (v) development human resources and skill competencies; and (vi) flood control and water resource management flagship programs. The Project overall, and priority subprojects, will also indirectly support the strategic environment framework and GMS tourism development flagship programs.

2.3. Vision and Development Framework for Kaysone Phomvihane

2.3.1 Vision Statement

26. The EVEC extends 1,320 km as a continuous land route between the Andaman Sea in the Indian Ocean and the South China Sea. It passes through 19 provinces and cities in four countries; Myanmar, Thailand, Lao PDR and Viet Nam. In Lao PDR, the EVEC starts at Kaysone Phomvihane at the first international border gate with Thailand (Mukdahan) and traverses along National Road 9 (NR 9), passing through Phine before reaching the second international border gate with Viet Nam (Lao Bao in Quang Tri) in Dansavanh.

27. The development strategy for the EVEC plays an important role in facilitating comprehensive development for corridor provinces and towns. It also provides countries with better access to natural resources, improved infrastructure, urbanization in corridor cities or towns, development of cross-border commerce cross, and supports and facilitates investment from regional and international enterprises. In response to sustained development within the EVEC, new economic activities are developing, new economic areas are forming, and the flow of goods from GMS to potential markets in other parts of Asia is being facilitated.

⁵ ADB c; Strategy and Action Plan for the Greater Mekong Sub-region East West Economic Corridor, Manila, Philippines (2010)

28. The recently improved transport connectivity has intensified urban linkages among GMS countries and contributed to economic growth. Improved connectivity and market-based integration initiatives have led to increased trade and investment in the border districts and transport nodes. Although increased movements of goods and services promote economic growth in cities and towns along the corridors, this has also resulted in tremendous development pressures in urban areas. Many towns located along GMS corridors do not have sufficient basic infrastructure and municipal services, both in terms of meeting the existing demand and anticipated future demand expected to be induced by increased movements of goods and people. Improvement of urban infrastructure and services, as well as urban planning and management capacity, will contribute to local socioeconomic development and transformation of the GMS corridors from transport corridors into full-fledged economic corridors.

29. Savannakhet, with two international borders and developing special economic zones⁶, needs to respond to the opportunities being provided by the economic corridor development; in the middle of the EWEC, Savannakhet includes three “corridor” towns which are developing and urbanizing at different rates. The Provincial Government fully recognizes the need for upgrading and expanding urban infrastructure and essential services along the EWEC to cope with anticipated urbanization and economic growth.

30. Importantly, through the “inter-corridor link” the EWEC intersects with the SEC at the Cambodia – Lao PDR border; in Lao PDR this is via National Road 13 (NR 13) which passes through Savannakhet. This means that the movement of goods and people along two of the economic corridors in southern Lao PDR transit through Savannakhet; Kaysone Phomvihane is one of the interchange nodes connecting the north-south arterial routes with the east-west routes, creating a link between Thailand (new Friendship Bridge across the Mekong) and Cambodia via NR 13, and Viet Nam via NR 9.

31. Given Kaysone Phomvihane’s strategic location along the EWEC, as an inter-corridor link, and as a border town, the expansion of the residential and commercial core of the town is expected as a result of increased economic activities and investments. Given this development, considerable areas of land currently zoned as agricultural will give way to the increased demand for residential and commercial mixed land uses as well as further development of industrial zones. The improvement of three major sites of Savannakhet-Seno Special Economic Zone (SSEZ) will extend the urban area to the northeast portion of the town. The economic improvement of the areas in the NR 9 will result in the emergence of a new commercial center along the corridor. The number of industry locators (24 as at June 2011) is expected to double in ten years which will provide increased employment opportunities for the local population as well as induce in-migration.

32. The future development of the Kaysone Phomvihane will proceed with the movement of population from rural villages to the sub-urban areas within the immediate vicinity of the town center. With the new Friendship Bridge and its location in the center of the country the town is primed to become the “western gate”.

33. Over the next decades, Kaysone Phomvihane envisions becoming an international and regional core city for increased trade and flows of people, goods and services along the EWEC. The town will promote its’ “charming” qualities which in addition to its proximity to Thailand, include location on the banks of the Mekong and many cultural and historic sites which can promote its tourism potential. As noted in the Master Plan, the development vision is to become “a socially responsible, environmentally friendly and economically successful town aiming to be the economic center for increased trade and investments in the EWEC”.

⁶ The Savannakhet-Seno Special Economic Zone and the Dansavanhh Border Trade Zone.

2.3.2 Socio-Economic Development Plans

34. The national urban development agenda is contained in the draft National Urban Sector Strategy (NUSS) which was prepared by the Department of Housing and Urban Planning (DHUP) of the Ministry of Public Works and Transport (MPWT). The NUSS sets out a range of objectives, policies and programs to develop all urban areas from the provincial capital cities to village clusters. It intends to strengthen the capacity of urban management authorities and create favorable conditions for civil society and private sector to actively participate in urban planning, management and sustainable development. The NUSS gives emphasis on the preservation and expansion of cultural and national heritage resources through appropriate urban development and environmental protection.

35. The agenda for national development and the attainment of development goals and objectives are incorporated in the NSEDP. As discussed in Section 2.1, the NSEDP sets out broad economic and social targets that include measures for improving public administration, enhancing regional integration, sustainable use of natural resources and provision of infrastructure. Under the NSEDP, the specific proposals for infrastructure development involve connecting the corridors, and constructing main roads in districts. The infrastructure plan will give priority to supplying water to 67% of urban population and increasing the proportion of the population with access to clean water and latrines to respectively 80% and 60% of the urban population.

36. In the line with the NSEDP, the PDPWT coordinated with the Provincial Government of Savannahket the preparation of the 5-year Provincial SEDP. The provincial plan gives special emphasis on the provision of essential infrastructure in the town center where the majority of the local population resides. The preparation of the infrastructure plan is also coordinated by the PDPWT with the different District offices and participating agencies in terms of establishing the program priorities for required infrastructure.

37. The Khanthabouly (former name of Kaysone Phomvihave) Urban Master Plan was approved in 2001. The Master Plan included the land use plan, road network planning, drainage system planning, solid waste management system and building regulation. Most of the current urban development activities such as road network improvements, drainage structure rehabilitation and solid waste management being undertaken by Kaysone Phomvihane were based on the Master Plan.

38. The updated Kaysone Phomvihane SEDP identified key infrastructure project for priority investments. These include essential urban infrastructure that are being addressed under CTDP such as water supply and sanitation, road improvement and drainage and flood control. The plan also included priority support to tourism development and environmental protection.

3. Description of the Subprojects

39. The key challenges facing the local authorities of Kaysone Phomvihane arise from inadequate urban infrastructure and the limited capacity of the District local governments to plan and manage urban development services. Several interventions have been proposed to address these issues. Following the national inception workshops held in June 2011 and subsequent discussions and workshops with the EA and other stakeholders, the priority subprojects in Lao PDR were confirmed as shown in Table 3.1.1. The subprojects in Kaysone Phomvihane are shown on Figure 3.

Table 3.1.1 – Priority Subprojects in Lao PDR

Town	Priority subprojects and components
Kaysone Phomvihane	Improvement of wastewater treatment (plant) and drainage
	Improvement (widening) of three urban roads incl. provision of drainage
	Improve solid waste management, establish materials recovery facility at existing dumpsite
	Mekong River embankment protection
	Expansion of dry port logistics facilities
Phine	Installation of materials recovery facility
	Improvement of urban roads and drainage
	Improvement of public market facilities
Dansavanh	Urban bypass road with drainage structures and bridge
	Installation of materials recovery facility
	Establishment of dry port facility

Note: only highlighted rows are subprojects to be financed through ADF funding and subject to FS preparation and assessment in the PPTA.

3.1. Improvement of Wastewater Treatment and Drainage Structures

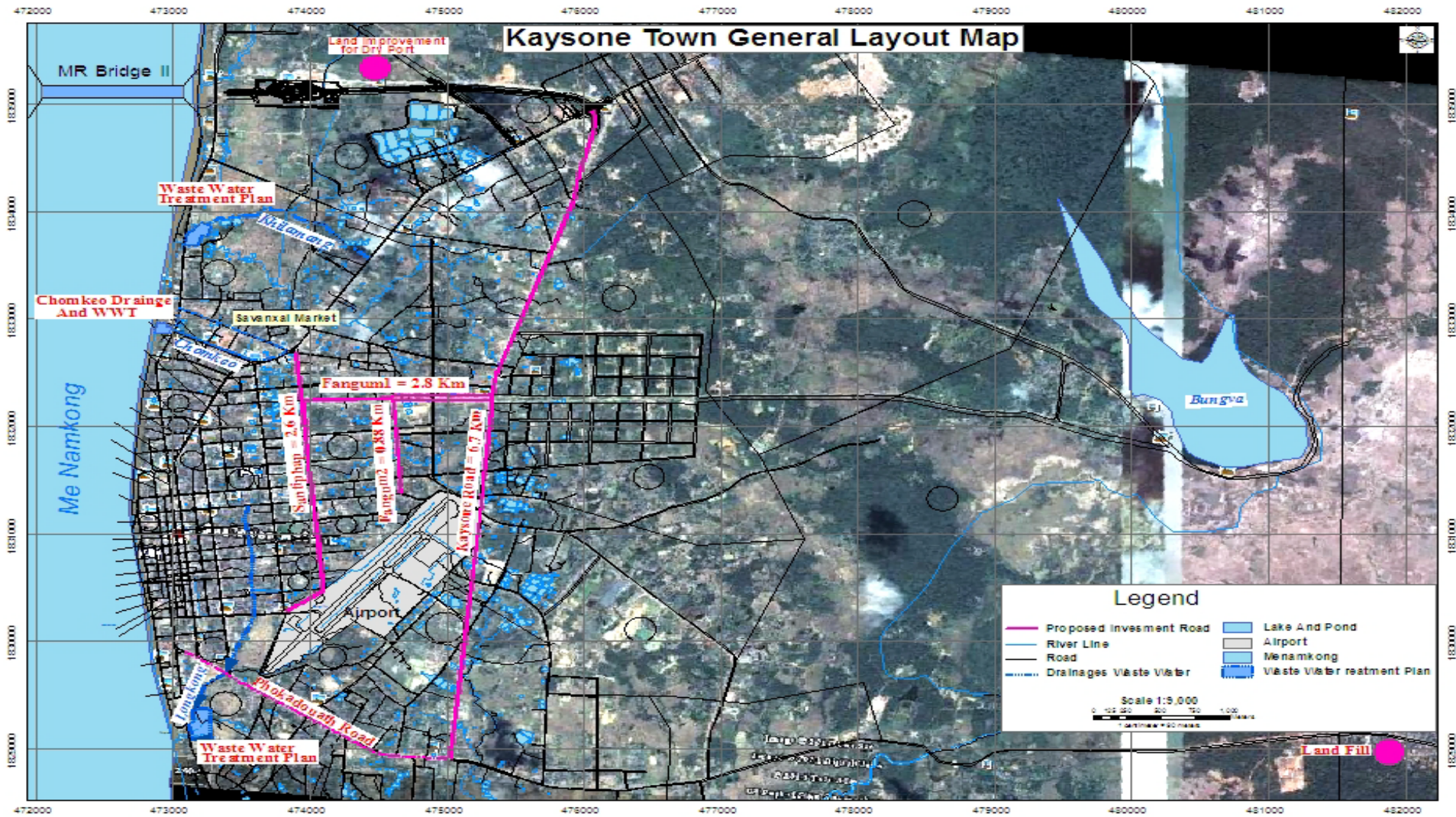
3.1.1 Existing Problems and Need for Subproject

40. Flooding has been a perennial problem in the town, particularly during heavy rains. This is largely the result of inappropriate design of drainage structures in most parts of the town, poor maintenance of existing flood control and drainage structures, and the absence of a wastewater treatment plant. The existing flood gates that are intended to mitigate flooding from the inundation of the Mekong River are poorly designed and no longer functional; when the water level of the Mekong River rises during the heavy rains, flood waters back up and inundate the town center because they cannot drain to the Mekong River. Both the urban environment and water quality of the surface water flowing through open canals downward to natural streams, has deteriorated. Water quality has worsened due to inflow of domestic wastewater from expanding urban areas and industrial growth with the development of industrial park such as the SSEZ.

41. The north-western part of Kaysone Phomvihane urban area includes Santiphap, Soukhavady and Sisavangvong (north) Road areas (leading to the Bus Station and Savanxay Market), this is a densely populated urban area. The drainage system comprises an open trench, with incoming surface water from side drains discharging directly into the open trench and includes

discharges from Savanxay Market which drain to the main trench along Visoukan Road and from Chomkeo Road area via Chomkeo Stream.

Figure 3 – Location Map and Subprojects



42. The north-eastern area comprises the drainage system of Houay Khilamang which has a catchment of about 5km². In the central area of the catchment are many factories, mechanical workshops, car washing services and other enterprises. The commercial area is rapidly developing without a regulated or properly managed water and sanitation system. The downstream section of the stream is about 1km and passes through a paddy area. During the rainy season, the water level of the Mekong is about 6-7 m higher than normal dry season level and flood waters back up and inundate the low-lying areas (including the area of the proposed sedimentation ponds).

43. The southern area comprises the Houay Lonkong drainage system which includes an existing lined open canal – the main canal - between Sisavangvong (south) and Ratsavongseuk Roads, and crossing seven roads until reaching Phokadouath Road, a canal branching from eastern Houay Lonkong and crossing Santiphap Road connecting to the main canal, and the third part of the system being the Houay Lonkong stream itself. The sewage and wastewater generating within this system drain directly to the open canal and are released into Mekong without treatment.

44. The three drainage systems eventually discharge directly to the Mekong River. The systems are totally inadequate for the areas they serve and are resulting in stagnant waters and liquid and solid pollution accumulating in streams and natural water-courses. The result is increasing unsanitary conditions and threat of heightened seasonal pollution in selected areas, both of which are exacerbated by the growing urban population.

45. The existing sanitation system entails on-site disposal of human waste without introduction of a full water-borne sewerage and treatment facility providing safe disposal. Most households rely on flush or pour latrines some of which are connected to septic tanks and some of which are connected to a pit or chamber for containment of excreta. However, due to the low permeability of the soil and the high groundwater table, many soak-a-ways fail to operate effectively resulting in discharge of sewage into drainage channels or low lying areas. This results in overflows of polluted effluent, environmental degradation and public health hazards. Poor system coverage results in serious river and stream pollution, as well as soil contamination from open defecation which occurs in the slum areas of the town.

3.1.2 Components of the Subproject

46. As the town is expanding it is important to have adequate planning for sanitation service and drainage and wastewater management. The construction of appropriate wastewater treatment plant (WWTP) and stabilization ponds in three locations are required to mitigate the deteriorating environmental conditions and health issues associated with poor sewerage and sanitation. The drainage and wastewater management will link with improvements being afforded by the storm-water drainage structures being proposed in the urban road improvement subproject. The subproject is designed to serve an estimated population of 35,400.

47. This urban environment infrastructure subproject will involve the construction of open and closed channel drainage structures along existing canals and natural streams, and the installation of appropriate WWTP at three sites to serve the central, southern and northern sectors of the town. The northern and southern WWTP plants require an area of 2.7 ha while the central system will install septic tanks and ponds in an area of 500 m². The northern and southern plants consist of four treatment ponds, two aerated lagoons and two secondary sedimentation lagoons. Most biological oxidation processes for treating industrial wastewaters have in common the use of oxygen (or air) and microbial action. Surface-aerated basins achieve 65% removal of BOD₅ with a retention time of one day, the design capacity of each treatment plant is 5,552 m³/day (0.0643 m³/second). The basins may range in depth from 1.5 to 3.5 metres and use motor-driven aerators floating on the surface of the ponds. The last is a retention pond/stabilization pond thereafter the treated wastewater will release to the Mekong River.

48. The components of the subproject include;

- Package A – southern area (Lonkong system) – (i) improvement of about 2 km of existing lined open canal where damaged; (ii) lining of main sewerage pipes (2.5 km) following or parallel to the open storm drainage canal to the wastewater treatment plant and sewerage collecting pipes; (iii) WWTP with surface aerated basin equipped with electric motor with propeller and slinger-ring on vertical shaft and retention pond; (iv) improve the natural stabilisation pond; (v) construct new open canal (0.5 km) following Houay Longkong and protect with rip-rap; and (vi) construct and install water pumps housed equipped with 2-pump unit capacity not less than 0.5m³/s each;
- Package B – central area (Chomkeo system) – (i) construct drainage structures (pipes culverts, manholes, gutters and chambers etc.) along Visoukan and Phongnotha Roads and connecting drainage from area between Phongnotha and Visoukan Roads; and (ii) construct a WWTP at the outlet of Chomkeo Stream with septic tanks (requiring a land area of about 15m x 30m adjoining the stream outlet); and
- Package C – northern area (Kilamang system) – (i) installation of lined sewer pipes total approximately 700 m in length with diameters ranging from 400 mm to the wastewater treatment plant; and (ii) WWTP with surface aerated basin equipped with electric motor with propeller and slinger-ring on vertical shaft and retention pond.

3.2. Improvement of the Urban Roads and Drainage

3.2.1 Existing Problems and Need for the Subproject

49. Kaysone Road was constructed between 1996 and 1998 to a second highway standard design. It has a length of 6.7 km starting at the northern roundabout known as “Dinosaur Circle” and connects Phokadouath Road at its southern end. The road is paved with Double Bituminous Surfaces Treatment (DBST) and is 13m wide but is effectively only two-lane. The road is generally in good condition with some minor erosion at the edges and shoulders. Drainage is irregular; in some sections it conforms to an open earth channel and in other sections it is a covered drain which also provides access to properties. The road is densely settled with larger numbers of residential and commercial premises and a large market - Samikxay Market – at the southern end. The sides of the road are used as parking areas for the many commercial enterprises, restaurants, beer gardens and shops and in many cases people have placed timber or filled over the drain/culvert with earth to provide access from the road to their property. There are numerous encroachments into the right-of-way (ROW) with awnings and shop/house expansions built out over the footpaths. The road becomes congested as a result of parked and through traffic conflicts.

50. Santiphap Road is 2.6 km in length and was constructed with DBST in 1994, it was upgraded with drainage improvements during 2002 – 2004 through ADB’s Secondary Towns Project. The road starts at Kaysone Phomvihane District Offices and connects with NR 9 at its southern end. There is covered drainage, also utilized as the footpath, on one side of the road only. On the other side of the road there are sections of open earth channel, and similar to Kaysone Road concrete slabs, wood or fill have been used to provide access to houses, restaurants and other businesses.

51. The condition of the road is poor, there are numerous potholes and cracks, in addition to erosion at the shoulder. There are many cross-roads and the road is not uniform width and in places is too narrow to serve as a main road, it suffers similar problems to Kaysone Road with conflicts between parked and moving traffic.

52. Fa Ngum Road consists of two sections. Fa Ngum 1 is 2.2 km long and was built in 1995 of gravel wearing course (GWC) and was subsequently upgraded to DBST over the 2006 – 2008

period. The existing pavement is approximately 6 m in width and is provided with a wide open earth drain and culverts on both sides. Small wooden bridges across the drains have been constructed to provide access to housing. The road is in poor condition with large potholes in many places.

53. Fa Ngum 2 was constructed at the same time as Fa Ngum 1. This section of the road is less than a kilometer in length but is wider (approximately 12 m) than Fa Ngum 1 and had permanent sides drains (covered culverts) installed during the upgrading works. The road provides access to provincial government offices, which are well set back from the road with a wide grass verge (3-4m) between the drains and the fences. Fa Ngum Road is the link between Santiphap Road and Kaysone Road.

54. The two sections of Fa Ngum Road are adjacent to a large empty unused lot which the provincial government is proposing to convert into a small park, and provide a one-way system around it.

3.2.2 Components of the Subproject

55. The roads do not adequately serve their function, traffic conflicts, ROW encroachments, inadequate markings, signage and safety measures (such as median barrier or strip) and poor cross-road connections make for unsafe movements along these main roads. A key objective of the subproject is to redress these deficiencies, to ensure both structural integrity of the roads and compliance with road safety requirements.

56. This subproject will involve widening and re-sealing (asphalt) Kaysone Road and Santhiphap Road providing four lanes, the improvement works also include upgrading of the roadside drainage structures, installation of a median divider, tree planting and street lighting system. The upgrading of Fa Ngum is to include provision of a one-way system with a uniform width of 10 m (widening required on Fa Ngum 1). Tree planting will be undertaken on both sides of the roads along with conversion of the empty lot into a park.

57. The total length of the upgrading works is 12.9 km, as shown in Table 3.2.1.

Table 3.2.1 – Length of Upgrading Works

Road	Length (km)	Proposed width (m)
Kaysone	6.7	25
Santhiphap	2.6	21
Fa Ngum 1	2.8	10
Fan Ngum 2	0.88	10
Total	12.9	

Source: Feasibility Study (October 2011)

58. The roads subject to works will be wide enough to accommodate an asphalt concrete sealed carriageway and footpaths/covered drains.

59. Upgrade existing Kaysone Road to a total cross-section width of 25m to provide four traffic lanes sealed with asphalt concrete (1 x 3.5m and 1 x 3.8m on each side) plus a 1.5m wide shoulder to be used by motorbikes, installation of a 3.4m wide reinforced concrete island median for safety, footpath/covered drain on each side of the road (2m wide) which is sufficient width to re-install water supply pipes, telecommunication and electricity cables. Street furniture will be included, this will be located in the median island; traffic signage, installation of street lighting and tree and grass/shrub planting.

60. Santiphap Road upgraded to a total cross-section width of 21 m and improved to a similar standard as described above providing four lanes without the shoulder extension for motorbikes and a narrower median island (1.2 m in width); and

61. At chainage Km 0.68 on Fa Ngum Road-1, the system will become one-way around the proposed park area. The road will be upgraded to an asphalt concrete pavement and a 2 x 2m wide footpath will be provided.

62. Installation of the drainage system, culverts, street lighting and tree planting will be according to MPWT specifications (2006).

3.3. Improvement of Solid Waste Management System

3.3.1 Existing Problems and Need for Subproject

Solid Waste Management

63. The rapid growth of the town centre and sub-urban areas of Kaysone Phomvihane town has created considerable demand for essential urban environment infrastructure. The collection, haulage and disposal of solid waste have become growing concerns of the local residents given the inadequacy of the existing solid waste management (SWM) system. The increasing number of households and commercial establishments has limited the capacity of existing SWM operations.

64. The daily volume of waste generated by the residential and commercial population is expected to increase as trading and commercial activities expand. The municipality generates between 50 and 60 tons of solid waste per day but only 25 tons is collected and disposed at the dumpsite. Currently, the Urban Development Administration Authority (UDAA), including private contracting, collects from 27 of the 31 villages in the town. However, only 4,300 of the 12,252 households in the town are officially registered as customers, accounting for 35%. Thus it is clear that the existing collection system is inadequate to cover current waste generation, increases in volume of waste resulting from increasing population and expanding commercial activities would put the system under extreme pressure.

65. In some residential areas, solid waste is indiscriminately dumped in open spaces (on the roadsides, in streams and open drainage channels) causing both inconvenience and health hazards for the general public. Even in areas covered by the collection system, the waste is not collected on a regular enough basis to avoid nuisance from flies and smell. Much of the waste is not containerised in bags, bins, or drums and is therefore dumped and stored awaiting collection, and then collected, loose. It has been observed that recycling is carried out by the collection crews during collection. While from a resource utilization perspective this is positive, at the same time it makes collection both inefficient and costly. This is clearly indicated through the fact that despite there being 12 collection trucks in operation, the trucks collect only between 1.5-2 tons per truck per day and make between 1.3 (private) and 1.6 (UDAA) trips per day to the dump-site. This is a very low performance compared with more developed SWM systems, where 3-4 trips per day would be made.

66. The dumpsite was established in 1996 through a UNDP program. It covers an area of about 16 ha and is located 8 km from the town centre. At the dumpsite area, burning of solid waste is a common practice. Currently, about 4-5 ha of the dumpsite area is being used for dumping waste, with the filling area being divided into four cells, each of approx. 1-1.5 ha. There has been initial excavation of approx. 3 m, but there is no bottom drainage or liner installed, since it was concluded that the underlying soils were impermeable. Culverts connect the four cells to a central outlet point, from where leachate discharges to a concrete canal.

67. A dike/dam is constructed, generating an upstream pond, assuming to provide some treatment before discharge to a downstream channel running through rice fields. The dumpsite system cannot be described as a sanitary landfill.

68. The municipal government is struggling to improve SWM in the town due to budgetary constraints. It has been partnering with service providers from the private sector whose capacities and facilities are now largely insufficient to cope with the need for expanding coverage. If this urban environmental infrastructure and service is not improved there cannot be associated improvement in public health or local environmental conditions.

Recycling

69. A rather extensive system of informal recycling is in operation in the town. This involves the collection crews themselves and other waste collectors moving around the streets collecting recyclable materials from households and commercial enterprises, through either purchasing them for a small amount or sorting through dumped rubbish before it is collected.

70. Recycled material includes cardboard/paper, plastic, metal (in particular cans) and bottles. There is also informal recycling of food waste from restaurants/canteens and public markets, with the waste being used as pig, goat and fish fodder. Waste-pickers (including poor people from the nearby village) also operate at the dump-site, selling directly to the waste purchaser or using materials they find in their own households (this is discussed further in Section 5).

71. A simple material recovery facility (MRF) is in operation at the dumpsite. It was established in early 2011 and is operated by the largest private recycler in the city. The recycler has a 30-year contract with UDAA and rents an area of land in the corner of the dumpsite where a 600 m² open structure with a concrete floor and corrugated iron roof has been constructed. Additional smaller rooms intended for offices have been partially constructed but are not yet complete. Six people are employed at the MRF to sort through the waste, they earn 500,000 kip per month. To date the recycling contractor has invested more than US\$100,000 establishing and operating the business. The facility has a PC, scale, and a hydraulic baling press (for making bales of the recycled materials ready for transport). The recycled material is mainly sent to Thailand, China and Viet Nam.

Table 3.3.1 – Approximate Volumes of Recycled Material Purchased

Waste material	Volume per day (kg)
Plastic	300-400
Cardboard	200
Aluminium cans	500

Source: PPTA Consultations - MRF Operator (May 2011)

3.3.2 Components of the Subproject

72. The goal of the subproject is to establish a modern SWM system in the city, with expanded collection coverage, improved waste recycling, improved hazardous and medical waste management, and adequate end disposal of remaining waste with minimized negative impacts.

73. The subproject will involve the establishment of a sanitary landfill that can be expanded to meet the needs of the growing population by achieving a projected collection rate to 90% by 2025. Investment in the sanitary landfill and MRF is expected to contribute to the reduction of related health incidence and the improvement in environmental conditions. This investment will be a public private partnership arrangement where the public sector will invest in the establishment of the sanitary landfill while the private sector will manage the solid waste collection and operate the MRF. It is the initial goal of the municipality to achieve a minimum recycling level of 20% through the new SWM system. When the existing informal recycling system is added, in the order of 25% is likely to be achieved. On a long term basis, recycling activities will be promoted and encouraged with the goal of reaching recycling of 45% of the waste generated.

74. The specific objectives of the subproject include:

- To establish a sanitary landfill for proper disposal of solid waste;
- To install an improved MRF for proper waste segregation and recycling;
- To procure the additional equipment and facilities required for improved SWM;
- To introduce biological treatment of selected organic waste types through aerobic composting;
- To promote recycling, waste minimization and raising public health awareness; and
- To promote public private partnership in SWM in the town.

75. The components of the subproject include; (i) developing new sections/cells as a sanitary landfill for proper disposal of solid waste; (ii) development of a site for leachate collection and treatment (including proper drainage structures; (iii) improving the MRF providing for proper waste segregation and recycling; (iv) procurement of additional collection trucks, waste bins/containers, equipment for the operation and maintenance of the facilities; (v) procurement of additional equipment for improved operation at the disposal site; (vi) implementation of public health, education, motivation and awareness campaigns to support the improved SWM system; and (vii) promotion of public private partnership in the operation and maintenance of the collection and recycling system and material recovery facility.

3.4. Mekong River Embankment Protection

3.4.1 Existing Conditions and Rationale for the Subproject

76. The constructed embankment of the Mekong River in the eastern portion of the town center is a major aesthetic feature of the capital attracting local and foreign tourists to enjoy the setting sun at the backdrop of the meandering Mekong River. It has become known as a mini “night market” where numerous small food and drink stalls and restaurants have established to cater to the needs of visitors. It is also the viewing area for the annual boat racing festival and the major meeting place for teams competing in the rocket festival, as well as providing an open space along the river for many other cultural activities.

77. The existing embankment was constructed only in certain sections at a height of about 16m above the dry season water level. Results from the additional survey of cross-sections between stations Km 0+00 to Km 1+400m found the river bed to be at depths as shallow as 2m - 4m during the driest period of year.

78. In many of the sections without embankment protection, erosion is occurring while in other sections the embankment protection is damaged or ineffective. The riverbank slopes are gradually being damaged by erosion due to the strong river current and high volume flows during the peak rainy season. These natural causes are compounded by the embankment protection measures being insufficient to accommodate the structures being built along the top of the riverbank (and in some cases out over the river itself) and additional scour is resulting from garden activities when the naturally erosion resistant grasses are burnt or cut to plant corn.

79. Anecdotal information from local people about the sand island in the middle of Mekong River is that it has changed over the period between 1975 and 1990 and has receded in both upstream and downstream directions and now encompasses a much smaller area. In the past people used the island for dry season gardens but as there is now a small area they have moved seasonal opportunity gardening to the certain sections of bank of the Mekong River.

80. The local authority has prepared a development plan that includes additional protection of the riverbank by expanding in width and increasing in length the existing riverbank slope protection measures and which also include management measures for parking and control of sanitary

conditions associated with the stalls and restaurants. It is recognized by the Tourism Authority and local business sector that upgrading and improving this area of the Mekong River will not only protect the riverbank from further erosion it will enhance economic activity by providing additional area for small commercial establishments and sunset viewing platforms all of which has the potential to attract more visitors.

3.4.2 Components of the Subproject

81. This priority urban environmental infrastructure subproject aims to establish a stretch of the Mekong River that is protected from erosion and can facilitate local economic activities, trading, restaurants, traditional festivals and contribute to making Kaysone Phomvihane an attractive and competitive town along the EWEK. The specific objectives of the embankment protection subproject include: (i) to mitigate the effects of climate change by “climate proofing” and adding resilience to an extended riverside area of erosion protection; (ii) to establish a controlled service area for trading including stalls/shops, restaurants, parking area, an administrative building, public toilets with sanitation facilities and various recreation facilities; (iii) to improve the area and facilities used during boat race festivals and other local traditional events; and (iv) to contribute to the development vision of Kaysone Phomvihane which is to become an attractive town with increased trade, traffic and flows of people, goods and services.

82. The subproject will involve the construction of an expanded area of riverbank erosion protection extending from the existing bank out to 50 m over an 800 m long section starting immediately south of the spirit house to avoid any impacts on this important cultural structure. The master plan has identified an area of 2.6 km along the Mekong River that eventually requires erosion protection, the section to be financed under CTDP is the priority section. The components of this multi-purpose urban infrastructure subproject includes:

- Civil works for the construction of a piled platform over the river for a length of 800 m and width of 50 m;
- Embankment and riverside protection for the slope underneath the platform;
- Civil works for the construction of concrete/asphalt pavements and drainage structures;
- Construction of an administration building, comfort rooms/toilets (with appropriate sanitation) and other facilities required to improve the sanitary conditions of the night market area; and
- Installation of water and power supply.

4. Socio-Economic Profile of Beneficiaries

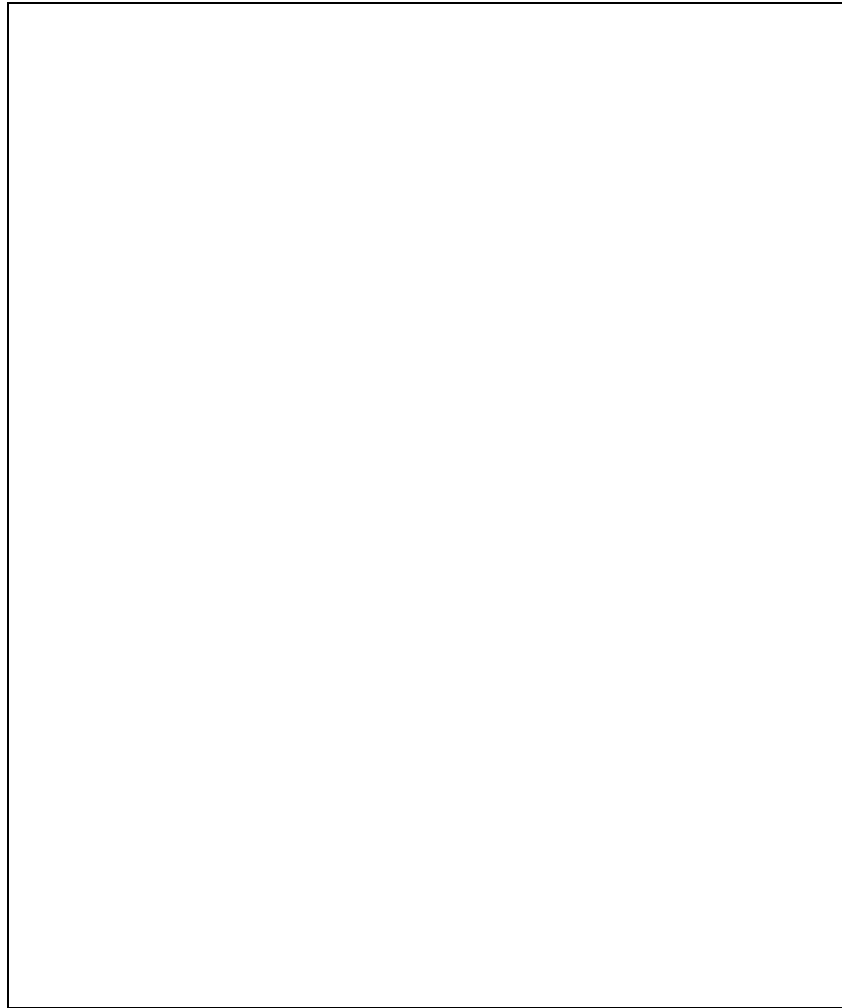
4.1. Profile of the Town

83. During the SLEDP a socio-economic profile was prepared based on data and information gathered during village visits, interviews with selected villages within the beneficiary area and key informant interviews (KIIs). For some subprojects the beneficiary areas comprise a number of villages, while for other subprojects the beneficiary area is much smaller. The following is the town profile as presented in the SLEDP and updated with more recently collected information where relevant.

84. Kaysone Phomvihane is the provincial capital of Savannakhet⁷, a border town and also serves as a major agro-industrial processing center. The town is the largest in Savannakhet, and is bounded to the west by the Mekong River (and across the river by Mukdahan in Thailand), to the east by Outhomphone district, to the south by Champhone district and to the north by Xaibouli district (Figure 4).

⁷ Savannakhet province is divided into 15 districts and comprises 1,016 villages (37% urban). The population of the province is 886,986 of which 49% is female.

Figure 4 – Location of Kaysone Phomvihane District and Town



4.1.1 Physical Features

85. Kaysone Phomvihane district comprises 67 villages of which 31 villages are within the jurisdiction of Kaysone Phomvihane town. The town covers an area of 779 km², being mostly flat and gently undulating land.

86. The western side of the town is the Mekong River flowing from northern PRC. The Mekong River is the outlet for a number of small rivers and creeks from the town center. A decade ago, these areas were parcels of rice fields, idle and shrub lands. Over the last ten years, rice paddy fields have been converted into rubber and sugarcane plantations by investors from Thailand, Viet Nam and PRC.

87. The SSEZ, which covers an area of 8, 200 ha, is located to the north of the town. A considerable portion of the flat land of the town, approximately 700 ha in the north-west sector, has been designated as part of the SSEZ.

4.1.2 Demographic Characteristics

Population, Growth and Migration

88. Based on the 2005 Population and Housing Census (National Statistics Center), the population of the town was approximately 74,000. In 2010 the total number of households was

12,252, which gives an average household size in the town of 5.8. In terms of sex distribution, the female population numbering 38,914 and accounting for 51% of the total population was slightly higher than the male population of 37,991 (49%). This distribution is the expected trend for the next few decades.

89. The town has a relatively high population density of 75 persons per hectare (ha) compared with the district-wide population density of 17 people/ha, the old city center area is the most densely populated/settled area within the town.

90. According to the FYSEDP, the population of the town in 2010 was in the order of 77,000, which fell somewhat short of the population as projected in the JICA study.⁸ The FYSEDP contains projected populations to 2030 by which time the population of the town is expected to have increased by approximately 37,000 people. The population of the town and the special zone is expected to be in the order of 128,200 by 2030.

Table 4.1.1 - Population Projections (ex JICA) in Kaysone Phomvihane

Year	Population in town	Population in SSEZ	Total Population
2010	76,900	2,000	78,900
2015	84,900	6,000	90,900
2020	93,700	8,000	101,700
2025	103,500	11,000	114,500
2030	114,200	14,000	128,200

Source: Final Report. JICA (January 2010)

91. The 2005 Census recorded 9,469 people migrating from Savannakhet and in-migration in the order of 5,500 people. With further development of the SSEZ in-migration is expected to increase as the industries establishing there will represent a significant pull to the area. As at 30 June 2011, the SSEZ Authority indicated that 24 companies had applied to establish within the zone (Site C), these industry locators are expected to generate 25,000 jobs while in Site A (administration and entertainment complexes) which is to be implemented during 2012 - 2025 the locators could generate employment up to 22,000 jobs (including approximately 2,000 workers at the proposed golf club).

92. There are also two new garment manufacturers from Hong Kong who are expected to employ approximately 2,000 workers over the next few years.

Poverty Incidence and Vulnerable Groups

93. The Prime Minister's Decree No.285/PM (13 October 2009) established the most current poverty lines, based on average per capita monthly income as derived from data analyzed in the Fourth Lao Expenditure and Consumption Survey (LECS-4). The poverty lines are given as follows: (i) national poverty line - per capita income below 192,000 kip/month; (ii) urban poverty line - per capita income below 240,000 kip/month; and rural poverty line - per capita income below 180,000 kip/month.

94. Based on the thresholds given above, the poverty rate of Savannakhet province is recorded at 43% which is higher than the national rate of 34%. There are three districts in the province that are classified as among the poorest districts in the country but Kaysone Phomvihane is not one of the three due to its favourable conditions.

95. According to Decree 192, vulnerable people are classified in Kaysone Phomvihane as marginalized and vulnerable include the poor, those engaged in the informal sector including:

⁸ JICA; Final Report - Preparatory Survey on Formulation of Basic Strategies for Regional Core Cities Development in Lao PDR (January 2010)

casual and seasonal labourers; landless farmers; small vendors and street sellers and those who have limited access to, or are unable to take advantage of, urban economic opportunities. In the town, there are also a number of people who make livelihoods from picking through the rubbish at the landfill and selling plastic, cardboard/paper and aluminium cans to a private recycling operator.

4.1.3 Land Use and Zoning

96. The emergence of Kaysone Phomvihane as a town started with the movement of people from the area adjacent to the Mekong River, to the eastern and northern areas of what is now the town center. The completion of the Second Friendship Bridge, linking Kaysone Phomvihane to Mukdahan in Thailand has encouraged the spread of residential and commercial establishments along NR 9 requiring further conversion of previously unused lands and agricultural areas. With the increased trade and traffic volume, the land use pattern has changed to accommodate the use for residential and commercial purposes. At present, residential and commercial mixed uses account for 64% of urban land use. The mixed use policy is provided for in the Master Plan of the town.

97. The centre of Kaysone Phomvihane is the old town center built during the colonial period. The town center is characterized by thriving trading and commercial activities including production of goods in Savannakhet and trade of goods imported from Thailand and Vietnam. The town center is divided into zones or areas including the old city center with heritage buildings remaining from the French period. Around the old city center is the core business district including banks, shops, hotels and restaurants located along the major city thoroughfare. Along the Mekong River, facing Moukdahan, there are also a number of hotels, small restaurants and eateries, and makeshift recreational facilities that were erected during the traditional boat racing festivals. The provincial and district offices of government agencies are mainly located along the Mekong River as well as a complex located on Fa Ngum Road. There are two public parks in the town, one is within the provincial government complex and features a statue of former President Kaysone Phomvihane, a small museum, and trees. The other park is located next to an old sport stadium on the bank of the Mekong River.

98. It should be noted that a new city center has been designated along the EWEC, which is envisioned to be the future center of economic activities for the district, given the presence of the SSEZ. This location is considered ideal for the expanding commercial and business establishments such as supermarkets and shopping malls, restaurants and hotels. It would also serve as a new tourist destination in the province.

4.1.4 Economic Activities and Employment

GDP and Main Economic Sectors

99. Given its strategic presence along the transport corridor, Kaysone Phomvihane has emerged as the focal point for development of secondary and tertiary industries that are established in the province of Savannakhet. The service sector and the industry and commercial sectors are the major source of employment and income for local inhabitants who work in both private business establishments and government institutions. Local employment and job opportunities are expected to increase over the next two decades with the anticipated increase in the number of industry locators in the SSEZ which is approximately 2 km from the town center.

100. Based on gross domestic product (GDP), over the three year period 2007 to 2010, the economy of Kaysone Phomvihane grew from 9.4% to 9.8%. Per capita GDP increased from US\$712 in 2006 to US\$1,027 in 2010 and is expected to be as high as US\$1,464 by 2014. As shown in table 4.1.2, there has been a gradual shift away from the agriculture sector (with a share of 20.9% of GDP in 2006 to 20.3% in 2010) and services sector (GDP share reducing from 48.2% in 2006 to 46.6% in 2010) to the industrial/commercial sector (increasing its share of GDP from 30.8%

to 32.9%). It is the industrial/commercial sector which is expected to continue to grow, potentially reaching 45.6% by 2014.

Table 4.1.2 - GDP over 2006-2009 and Estimates for 2010-2014

Sector	Year							
	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14
GPD growth rate (%)		9.41	9.68	9.75	9.82	9.97	10.85	10.89
Agriculture-Forestry (%)	20.9	20.9	20.7	20.5	20.3	20.0	19.6	19.1
Industry-Commerce-Handicraft (%)	30.8	31.2	31.8	32.3	32.9	33.4	34.3	35.1
Service (%)	48.2	47.8	47.4	47.0	46.6	46.7	46.1	45.6
GDP per capita (US\$)	712	870	945	1,027	1,116	1,215	1,333	1,464

Source: 2009 Statistic Survey, Planning Office, Kaysone Phomvihane.

101. In 2010 the town had 368 factories (food processing, garment making, wood processing and furniture making, concrete products and aggregates) with a total production output valued at 450.3 billion kip.

102. Although the agriculture sector is declining, rice is still the predominant agricultural product in Kaysone Phomvihane, with volume produced accounting for about 20% of national production since 1990s. Rice production is undertaken over an area of 14,681 ha. In addition to rice production, the area is becoming known as a rubber and eucalypt growing area; there are 180 ha planted with rubber trees and 105 ha planted with eucalypts.

103. The number of hotels, lodging houses and restaurants are increasing to accommodate the growing number of visitors and tourists in Kaysone Phomvihane. These establishments which are mostly in the town center are providing local employment to service providers.

Employment and Economic Activity

104. About 60% of households in the town are engaged in activities in the commercial and services sector and reflects the increasing number of medium and large trading and commercial enterprises in the town. Over a third (38%) of households are still engaged in agriculture including small-holder farming, rice production, livestock and poultry raising and fish farming. Only a small proportion of households are involved in handicraft making and home-based activities (Table 4.1.3).

Table 4.1.3 – Main Sector of Economic Activity

Sector	% of HHs
Agriculture and forestry	38.3
Handicraft	1.3
Commerce and service	59.9

Source: 2009 Statistics Survey, Planning Office, Kaysone Phomvihane

105. The 14 to 60 year age group constitutes more than two-thirds (68%) of the labor force. In general it has been noted by the Planning Office that the labor-force overall has low levels of skills and education (discussed further in Section 5). There are inadequate funds available through provincial government programs to support vocational skills training and upgrading of human resources.

4.1.5 Services and Infrastructure

Social Services and Facilities

106. In the town there are 40 kindergartens, 71 primary schools, 21 secondary schools and one university. In terms of access to health care services and facilities the town provides a hospital, 13 health centers, 34 pharmacies and 39 private clinics.

107. There are three large markets/trading centers and two small markets operating in the town. These markets are outlets for locally produced vegetables, fruit, meat and processed goods. In the town centre there are 3,226 commercial and shops registered generating earnings in the order of 9.7 billion kip.

Transportation Services and Facilities

108. Kaysone Phomvihane is accessible by land, air and waterways. The completion of the Second Mekong River Friendship Bridge is providing easy access of freight forwarder, passenger bus, and tour buses to Mukdahan, Thailand or from Thailand to Savanakheth. The Friendship Bridge also provides easy links to Viet Nam via NR9, there are shuttle buses travelling to Mukdahan (Thailand) and Quang Tri (Viet Nam). The bus terminal in the town center provides national (Vientiane, Pakse, Thakek as well as to other provinces in southern Lao PDR) and international services for trips to other parts of Lao PDR and to Thailand and Viet Nam (Quang Tri, Da Nang, Thua Tien Hue and Ha Noi). There are 12 shuttle buses per day from Mukdahan to Savanavegas Casino.

109. Kaysone Phomvihane has an international airport located in the southern part of the town with total area of 104 ha, and a 1,650 m long runway. The domestic flights through Savannakhet between Vientiane and Pakse operate three times per week, and international flights to Siem Reap (Cambodia) and Bangkok (Thailand) also operate three times per week.

Water Supply System

110. The state-owned water supply enterprise - Nam Papa - operates and manages the water supply and sanitation system in the town. Of the district population of 118,748 in 2010, Nam Papa supplied potable water to about 75,000 people, covering 63% of the population (Table 4.1.4). The area served by the town supply includes the six village development clusters under the jurisdiction of the UDAA. The existing water supply system was established in 1974 and completed in 1977. The facilities include a water treatment plant with a capacity of 15,000 m³/day and a main transmission and distribution pipeline network of 54 km. The water treatment and supply facilities have deteriorated due to limited financial capacity and resources for operation and maintenance.

Table 4.1.4 – Population Served by Municipal Water Supply System

Item	Year				
	2004	2006	2007	2008	2010
Population in district (no.)	107,664	113,114	115,852	118,748	124,541
Population in service area (no.)	66,620	70,677	72,797	74,981	76,905
Serviced area (ha)	1,340	1,340	1,340	1,340	1,340
Household connections (no.)	10,207	10,766	11,093	11,426	12,402
HH service rate (%)	60	60	63	61	62

Source: Nam Papa, Province of Savannakhet (2011)

111. In 2003, a grant from Japan provided technical and financial assistance to Nam Papa for the rehabilitation of the water intake and water treatment plant facilities. As a result, the system managed to retain its original daily capacity. In its efforts to meet the water supply requirements of the increasing number of households in the town center and adjacent areas, in 2010 Nam Papa agreed a Memorandum of Understanding (MOU) with a Malaysian private sector group for expansion of the water supply system to provide an additional capacity of 7,000 m³/day and to date a feasibility study has been undertaken.

Sanitation and Sewerage Treatment

112. The sanitation system involves individual treatment in each household, buildings and business establishments using pour-flush or dry latrines discharging to septic tanks and soak pits (which overflow to the drainage system). In 2005, approximately 71% of households in Kaysone Phomvihane had access to sanitary toilet facilities; by 2010 this had increased to 97%.

113. Wastewater from other uses including ablutions, laundry, and food preparation is mostly discharged directly to the storm water drainage system without any treatment. There are no grease/sediment traps installed for pre-treatment of grease and oil from either households or small commercial enterprises. Small industries usually discharge waste directly to the drainage system following simple treatment via storage tank. The inadequate installation of effluent pipes from septic tank is causing leakage of sewage thus polluting soil and ground water.

114. Between 2007 and 2008, approximately 14,000 m³/day of wastewater was generated and discharged directly to the drainage system and Mekong River. While just under half of the volume of wastewater is treated, somewhat reducing the pollution load through the simple on-site treatment systems, with the expanding urban areas and increasing number of households, the quantity of sewage and increasing pollution loads flowing to the Mekong River is expected to increase each year.

Solid Waste Management

115. The solid waste management system in Kaysone Phomvihane involves the collection of garbage from residential areas, hauling it to the designated dumpsite which is about 12 km away from the town center. The landfill was established in 1996 and covers an area of approximately 16 ha. Households pay 11,000 kip per month for garbage collection. Hotels, restaurants and other business establishments are responsible for taking their solid waste to the dumpsite. Solid waste is carried to the landfill by two garbage trucks where it is dumped into a hole and then spread out by a backhoe. When the hole is full, it is covered by soil or clay.

116. The UDAA is responsible for solid waste management including the operation and maintenance of the landfill. The service area of UDAA's solid waste management system covers more than 10,000 households mostly in the town center. UDAA reports that the average volume of solid waste created per urban household in is about 3.5 kg per day.

Flood Control and Drainage

117. The existing drainage system in the town center area consists of roadside drains and open channels where flood water flows through natural streams and creeks before finally discharging to the Mekong River. Flooding often occurs in the old town area during high tides on the Mekong River when flood waters cannot be drained away. In the low-lying areas, flooding occurs for 2-3 days adversely affecting the movement of people, goods and services. The drainage network and flood mitigation system is an old system that was improved during 2000 - 2003 under the ADB-assisted Secondary Towns Development Project (covering Savannakhet and four other areas). At that time, the primary, secondary and tertiary drainage channels in the town area were rehabilitated, and flood gates were installed at the outfall to the Mekong River.

118. At present, there are three large discharge points from the town to the natural canals that eventually flow to the Mekong River. However, only two of these locations have flood gates to prevent water from the Mekong River flowing back to the urban area. These gates have never been operational due to mechanical defects. As a result, flooding occurs during heavy rains when the Mekong River is at high water level.

Urban Roads

119. The PDWT is also the agency responsible for the road network and transport planning. The JICA study indicated a total road network of 192.5 km within the Kaysone Phomvihane Town. The total main roads have 55 km of paved roads and 10.5 km of unpaved. The minor paved roads are 46.6 kilometers and unpaved is 77.4 kilometers. In addition, nearly 3 km of access road and footpath was constructed under a Japanese grant between the intersection located on National Road 9 and the Second Friendship Bridge.

120. Sections of the road network have also been improved and constructed under the ADB-assisted Secondary Towns Development Project. A number of narrow interior urban roads traverse the old town center, running parallel to and perpendicular with the main road along the Mekong River. Good road conditions (15 - 20 m width) provide easy access for traffic to and from the Second Friendship Bridge. While the lateral roads in the interior of the town are constructed with bitumen surfaces, the majority of these interior roads have been constructed without drainage structures while other road sections are not properly connected to natural drainage canals, and therefore are frequently flooded.

Support Infrastructure to Special Economic Zones

121. The SSEZ is a thriving hub of trade and services within the GMS consists of support infrastructure including: i) the EWEC linking Thailand, Lao PDR and Vietnam along NR 9 and also along the north-south axis with NR 13 linking Cambodia, Lao PDR and China; ii) the Second Friendship Bridge across the Mekong River; iii) Savannakhet International Airport; iv) the 115kV power grid and supply; and v) the Government fully supports the development and has invested US\$7.3 million to establish the office facilities in Site A in addition to the funds for resettlement and compensation.

122. On the 18th of May 2007, SaSEZ signed agreement with Malaysian developer-Pacifica Streams Development Company to develop a commercial and Industry Park in Site C to attract foreign investment along the East West Economic Corridor. Company divided into 4 phase for develop, on 16 June 2010, Company is progressing their work of phase 1 by developing industrial lots with providing basic infrastructure. By end of June 2011 24 investors (including eight national and had received permission to establish in Site C, the detail of locators are indicate in Table 4.1.5.

Table 4.1.5 - Industries Locating in SSEZ

Investor nationality	Industry/enterprise	No. of enterprises
----------------------	---------------------	--------------------

Lao PDR	Vehicle assembly; concrete; freight forwarding	8
Malaysian	Motorcycle assembly	3
Hong Kong	Garment	2
Japan	Vehicles; tin smelting	2
Holland	Small parts manufacture (Boeing)	2
South Korean	Vehicle assembly	1
Thailand	Import-export goods	1
Belgium	Diamond cutting	1
France	Concrete processing	1
Australia	Import equipment/material for gold mining	1
JV Lao-Malaysia	Import second-hand vehicles	1

Source: Pacifica Streams Development Company (July 2011)

4.2. Household Survey Methodology and Sample

123. A survey was designed to collect information from potential beneficiaries of the various subprojects being proposed under CTD. The survey was conducted in selected villages to represent the wider areas, the village leader was asked to identify poor areas/households so they could also be included in the survey. The survey form comprised six sections covering general information about the head of household; household demographics and housing; income and expenditure; access to and use of urban infrastructure, services and facilities, willingness to pay for new and improved services; and participation in community decision making and development.

124. To gather more detailed information, including thoughts and perceptions about the project, consultations (FGDs) with beneficiary villages were conducted alongside the survey of 200 randomly selected households in four villages. Table 4.2.1 shows that the population of the surveyed households is 1,205 people (including 595 males and 610 females).

Table 4.2.1 – Survey Sample

Village	No. of HHs	No. of female headed HHs	No. of male headed HHs	No. of males	No. of females	Total
Nakae	50	9	41	144	138	282
Nalao	50	22	28	147	164	311
Sok	50	25	25	145	147	292
Thahae	50	10	40	159	161	320
Total	200	66	134	595	610	1205

Source: PSA household survey (September/October 2011)

4.3. Characteristics of Beneficiary Households

4.3.1 Data on Head of Household

125. A third of households is headed by a woman; the largest proportion being captured in Sok village (half of the sample) and the smallest proportion (18%) being in Nakae village. Table 4.3.1 shows that more than three quarters of heads of household (77%) are aged between 31 and 60 years old; with 56% being aged between 46 and 60 years old. A very small proportion (3%) of households heads are relatively young household heads (20 to 30 years old), 16% are aged between 61 and 75, and a small proportion (5%) are older than 75 years. The survey captured a large proportion of households with older household heads, with 14% aged 76 years or older.

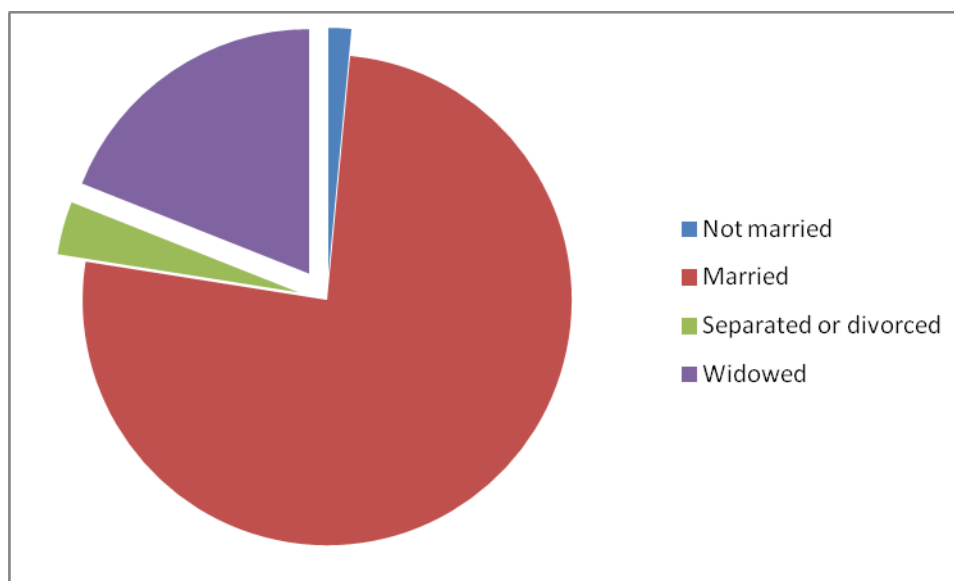
Table 4.3.1 – Age of Head of Household

Village	Age group in years (%)				
	20 to 30	31 to 45	46 to 60	61 to 75	> 76
Nakae	4.0	24.0	60.0	12.0	0.0
Nalao	2.0	16.0	40.0	28.0	14.0
Sok	4.0	26.0	56.0	12.0	2.0
Thahae	2.0	20.0	66.0	10.0	2.0
Total	3.0	21.5	55.5	15.5	4.5

Source: PSA household survey (September/October 2011)

126. Overall three-quarters of households are headed by a married couple, and the remainder of households is headed by a single person; not married (2%), separated or divorced (4%), or widowed (19%). Nakae has the largest proportion of married heads of household (86%) compared with two-thirds in Nalao and 68% in Ban Sok. In Nalao and Sok villages 26% of households are headed by a widowed person compared with 10% and 14% respectively in Nakae and Thahae.

Graph 1 – Marital Status of Head of Household



Source: PSA household survey (September/October 2011)

127. Education levels in the town are reasonably high, with nearly a third (31%) of heads of household having attained at least some secondary level education, and 30% gaining a tertiary level education.

128. Some 16% of heads of household had completed primary education while 19% had some primary level education as the highest level of education. Table 4.3.2 also shows that no heads of household in Nalao compared with 9% in Ban Sok have no education.

Table 4.3.2 – Education of Head of Household

Village	Education level (%)					
	None	Some Primary	Completed primary	Some secondary	Completed secondary	Tertiary
Nakae	6.0	12.0	18.0	10.0	28.0	26.0
Nalao	0.0	28.0	16.0	4.0	26.0	26.0
Sok	9.3	23.3	16.3	9.3	20.9	20.9
Thahae	4.0	12.0	12.0	4.0	22.0	46.0
Total	4.7	18.7	15.5	6.7	24.0	30.1

Source: PSA household survey (September/October 2011)

129. The level of education of the spouse of the head of household presents a similar pattern with over a third attaining some primary level and a third attaining some secondary level education. There are two differences being; 11% of spouses compared with 30% of heads of household have attained a tertiary level education, and, 18% of spouses compared with 5% of heads of household have no education. It should be noted that in Nalao the survey recorded that 27% of the spouses of household heads had no education.

130. Overall 87% of heads of household and 76% of their spouses are literate (can read and write).

131. Over two-thirds of households earn income from some form of livelihood activities (including irregular and seasonal activities) undertaken by the household head (68%) and/or their spouse (47%), with some adults being engaged in more than one activity.

132. There is a similar proportion of heads of household and their spouses engaged in street vending (7%) and waste picking (2%). However 69% of household heads compared with 11% of their spouses earn income from wages or salary, and half of heads of households compared with 10% of their spouses earn income from casual or daily labour. A larger proportion of spouses (17%) than the heads of household (9%) were engaged in market trading. Livelihoods and income are discussed further in Section 4.4.

4.3.2 Composition and Size of Households

133. As noted in Section 4.1, there are two main ethnic groups in the town; Lao (97%) and Phoutai (2%) there is also a small proportion of “other” ethnic groups including Vietnamese and Thai (0.5%). In three of the villages the respondents were all Lao while in Nalao 8% of respondents were also Phoutai. The “other” groups captured in the survey were only in Nalao (2%).

Table 4.3.3 – Ethnicity of Beneficiary Households

Village	Ethnicity (%)		
	Lao	Phoutai	Other
Nakae	100.0	0.0	0.0
Nalao	90.0	8.0	2.0
Sok	100.0	0.0	0.0
Thahae	100.0	0.0	0.0
Total	97.5	2.0	0.5

Source: PSA household survey (September/October 2011)

134. Lao is the main language spoken in 99% of households and Phoutai and Vietnamese/Thai are spoken in the other 1% of households.

135. Most (84%) of the beneficiary households are one-family households, 13% are households made up of two families and 4% are households of either three or four families. Only the Lao households were comprised or more than one family. According to the survey data the average size of beneficiary households is six people and the largest households have 16 people and the smallest households are single-person households, but these occur only in Thahae village. Table 4.3.4 shows that 43% of households have either four or five people, 14% are six-person households and over a third (35%) are households made up of at least seven people (with 15% of all households having nine or more people). Small households i.e. three or fewer people account for 10% of households. (3%) are eight person households and 2% are households are comprised of nine or more people. Only four households stated they had members with a disability or long-term illness affecting one male and three females.

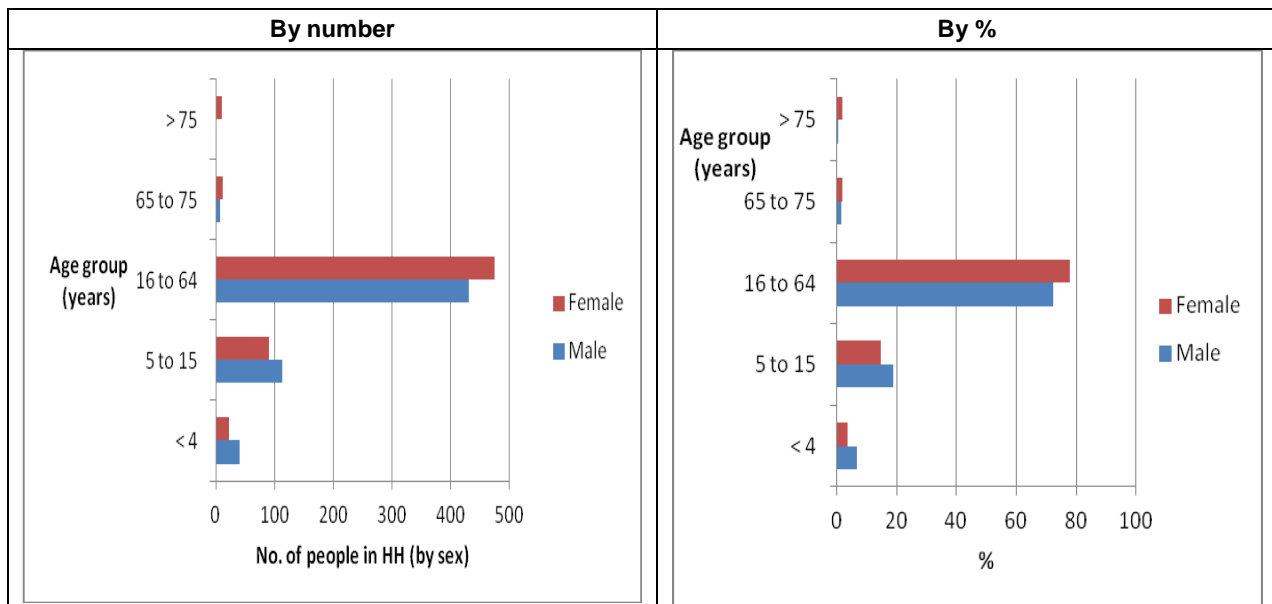
Table 4.3.4 – Size of Beneficiary Households

Village	No. of people in household (%)						
	1	2 to 3	4 to 5	6	7	8	>9
Nakae	0.0	4.0	50.0	22	12	8	4.0
Nalao	0.0	18.0	30.0	12	10	10	20.0
Sok	0.0	10.0	50.0	10	4	8	18.0
Thahae	4.0	2.0	40.0	10	10	16	18.0
Total	1.0	8.5	42.5	13.5	9	10.5	15.0

Source: PSA household survey (September/October 2011)

136. The age and sex composition of households indicates an even distribution with similar numbers of males and females relative to their overall number (there are more females than males). As shown in Graph 2 three age cohorts stand out; the 5 to 15 year age group which comprises a larger proportion of males (19%) compared with females (15%) and the four years or younger group where males (41) are twice as many as females (22), and the 75 years and older group where there is a larger number of females (11 compared with males (2).

Graph 2 – Age and Sex Composition of Households



Source: PSA household survey (September/October 2011)

4.3.3 House Type and Assets

137. The majority of households captured in the survey live in robust houses made with brick/concrete roof (76%) and walls (two-thirds) and floor (28%), some 71% of households live in a house with a cement fiber floor. A very small proportion of households (2%) live in house constructed from simple and semi-permanent materials such as bamboo or thatch.

Table 4.3.5 – Construction Materials of Houses

Town	Category of house (%)				
	Simple	Wooden	Brick/ concrete	Corrugated iron/ cement fibre	Other
Roof	1.5	22.5	75.5	0.5	
Walls	0.5	32.0	65.5	0.5	0.5
Floor			28.0	71.0	1.0

Source: PSA household survey (September/October 2011)

138. Overall 96% of households own (have title to) the house they live in. The house ownership documents are in the name of both head of household and spouse for 20% of households, in the name of the female in 43% of households and in the name of the male in 34% of households. Some 3% of households did not respond to the question. For those households not owning the house they live in 4% rent, 1% live rent-free and 1% stated they had another type of arrangement.

139. The tenure of the residential land includes title or ownership by most of the households (97%) or formal agreement to use the land (3%). Land ownership documents are registered in the names of both the female and male for 24% of households, in the name of the female only for 29% of households and in the name of the male only for 32% of the households. Some 15% of households stated they also own or use agricultural land, all of the households stated they own the land.

140. Ownership of household assets such as means of transportation, refrigerator and television and DVD player shows the ability of a household to move beyond provision of the basics. The survey data shows a high reliance on motorbikes as the main means of transport being owned by 95% of households, some 34% of households own a vehicle in three of the villages however vehicle

ownership is as low as 10% in Ban Sok. Bicycles are still used for local travel and are owned by three-quarters of households. In general there is a smaller proportion of households in Ban Sok than in the other three villages owning key assets (Table 4.3.6).

Table 4.3.6 – Household Asset Ownership

Village	Ownership of assets (%)						
	Vehicle	Motorbike	Bicycle	VCR/DVD player or Stereo/CD player	Television	Refrigerator	Air conditioning
Nakae	34	98	84	96	98	96	12
Nalao	34	92	74	86	96	98	22
Sok	10	96	62	66	98	96	4
Thahae	34	92	88	96	92	96	6
Total	28	95	77	86	96	97	11

Source: PSA household survey (September/October 2011)

4.4. Livelihoods, Income and Poverty

4.4.1 Livelihoods and Income Sources

141. The current livelihood systems of the beneficiary households involve (a) agriculture including (i) rice and vegetable cultivation; (ii) cash crop production; and, (iii) livestock and poultry raising; (b) engaging in seasonal or casual livelihood activities such as daily labor to farming households during the planting or harvesting season, street vending, or waste picking; (c) employment for regular wages or salary; and, (d) other cash generating activities such as market trading or operating small household business or enterprise.

142. Many households have multiple income streams, regular or waged income is earned by 62% of households (smallest proportion of households located in Nalao (54%) and 70% of households the largest proportion in Thahae) and more than a third (36%) of households earn income from casual or daily labor. Sale of agricultural goods (crops or livestock) produced by the household contributes to income of households in Nakae (2%) and Ban Sok (16%) while 16% of households overall derive income from sale of other goods (food, rice alcohol and handicrafts), ranging from 6% in Ban Sok to 24% of households in Nalao. Income from non-wage sources such as remittances, pensions or rent represents a small proportion of household income and is earned by 3% of households (Table 4.4.1).

Table 4.4.1 – Sources of Household Income

Village	Household income sources (%)				
	Wages or salary	Casual or daily labor	Non-earned income	Sale of crops or livestock	Sale of other goods

Nakae	66.0	46.0	2.0	2.0	16.0
Nalao	54.0	20.0	6.0	0.0	24.0
Sok	56.0	34.0	2.0	16.0	6.0
Thahae	70.0	42.0	2.0	0.0	16.0
Total	61.5	35.5	3.0	4.5	15.5

Source: PSA household survey (September/October 2011)

143. The survey captured 496 people who are engaged in livelihood activities and earn income for the household, accounting for 41% of the population including 47% of males and 35% of females. The sector in which most people undertaking livelihood activities are engaged is the private sector accounting for 32% of all people engaged in livelihood activities, followed by employment in the government (29%) and trade and small household business (19%). Engagement in a number of other sectors account for the remaining 19% of the economically active; construction (7%), transport (3%), garment industry (2%), tourism (1%) agriculture (1%) and other (5%).

144. The relative importance of income to a household can be determined from their answers to the primary or most important source of income followed by the secondary income. Employment in the public service (government) is a primary source of income for 40%% of households, and 11% of households also report this as the second most important source of income. The private sector is seen as an important source of income; accounting for primary income for 22% of households and secondary income for 11% of households. Trade, sales or small business is an important secondary source of income for 22% of households and also represents the most important source of income for 12% of households. Street vending and market trading is more important as a secondary income (6% of households) than primary income source (4% of households).

145. Construction is identified as the most important source of income and as secondary income for 7% of households. Income from the agricultural sector – as either a primary or secondary source - is only important for 1% of households (Table 4.4.2).

Table 4.4.2 – Importance of Income Sources

Importance of income	Income source of household (%)								
	Government	Private sector	Sales/ small business	Construction	Agriculture/ forestry	Transport	Daily/casual labor	Street vending /market trading	Other
Primary	39.4	22.2	11.6	7.1	1.0	4.0	8.1	3.0	3.5
Secondary	10.6	10.6	21.7	7.6	1.0	1.5	5.1	2.5	10.6

Source: PSA household survey (September/October 2011)

146. It should be noted that households in Thahae village recorded employment in the garment industry as “other” accounting for primary income for 4% of households and second most important source of income for 12% of households.

147. Some households include people who migrate for labor; 7% of households have members who migrate for work. The number of males working away from home is 12 and the number of females is 15.

4.4.2 Income and Expenditure

148. Household income has been obtained by collecting data about (i) wages/salary earned from different sectors (public/private sector employ) and income from other labor activities; (ii) sales of agricultural produce and other goods; and (iii) non-wage income such as remittances, pensions, income from rent etc. The total household income has been based on stated sources of income, it does not factor in any imputed values for subsistence production, and therefore represents cash income (as stated) only.

149. The average monthly household income (from all sources) for the town is 3.1 million kip and average per capita monthly income is 588,700 kip.

150. The total household income from all sources was divided into income groups, using the poverty line as the threshold for the lowest income group, the remaining households were divided into groups with equal numbers of AHs in each group, as shown in Table 4.4.3.

Table 4.4.3 – Monthly Per Capita Income Groups

Quartile/income group	Per capita monthly income (kip)		
	Minimum	Maximum	Average
1	52,100	240,000	155,884
2	240,001	420,000	343,043
3	420,001	750,000	574,038
4	750,001	3,400,000	1,310,777

Source: PSA household survey (September/October 2011)

151. The lowest income group represents households falling below the poverty line (discussed in detail below) as set at 240,000 kip per person per month for urban households.⁹ The second income group, while above the poverty line, is low income and includes marginal households (including those that hover 10-15% above the poverty line) and those most vulnerable to economic shocks which could make them fall below the poverty line. The third and fourth income groups are considered better off or relatively/comparatively wealthy, there is, however a very large range within these income groups. The distribution of households across the income groups is given in Table 4.4.4.

Table 4.4.4 – Distribution of Households across Income Groups

Village	Income group (%)			
	1	2	3	4
Nakae	18.4	16.3	36.7	28.6
Nalao	32.4	26.5	20.6	20.6
Sok	20.0	36.0	24.0	20.0
Thahae	24.0	30.0	18.0	28.0
Total	23.0	27.3	25.1	24.6

Source: PSA household survey (September/October 2011)

152. The table shows that the proportion of poor ranges from 18% in Nakae village to 32% in Nalao village. The largest proportion of households in the second or low income group is in Ban Sok (36%) and again the smallest proportion is in Nakae village. A quarter of households are in in the highest income group, with households in Nakae (29%) and Thahae (28%) being the villages with the largest proportions in this better-off group.

153. Average monthly household expenditure is 1.64 million kip. Table 4.4.5 shows that average household incomes in the 3rd and 4th income groups are 2.2 and 4.1 times higher, respectively, than the lowest income group, and that the average monthly expenditure of households in the highest income quartile is nearly twice that of households in the lowest income quartile. Households in the lowest income quartile, i.e. those below the poverty line, expend up to 74% of their income on food, water/electricity, school and medical expenses and family/community obligations compared with households in the highest income quartile who spend approximately a third of their monthly income on such expenses.

Table 4.4.5 – Average Monthly Household Income and Expenditure by Quartile

Income quartile	Household incomings/outgoings (kip)		Expenditure as % of income
	Av. Income	Av. Expenditure	
1	1,477,738	1,092,540	73.9
2	2,164,027	1,553,560	71.8
3	3,258,891	1,770,239	54.3
4	6,053,296	2,044,333	33.8

Source: PSA household survey (September/October 2011)

⁹ Based on data from the Fourth Lao Expenditure and Consumption Survey (LECS-4) the official poverty line was updated in 2009. The poverty line for urban households is defined as 240,000 kip per person per month and for rural households is defined as 180,000 kip per person per month.

4.4.3 Poverty and Vulnerability

154. Poverty, while country and context dependent, is considered to mean being without food or shelter, not being able to provide for family's basic needs, not having access to basic services (health and education), or being deprived of essential assets and opportunities to which every person is entitled. Aspects of poverty include lack of household food security, living conditions, and ability to build up household capital and collateral through asset ownership.

155. Households were asked if they ever lacked staple food (such as rice) and other basic but essential non-food items such as clothes, education or medical expenses. Overall 5% of households lacked basics and lacked staple food; only households below the poverty line lacked such essentials, accounting for 17% of these households. Households lacked basics for 2-3 months and staple food for up to three months.

156. Correlations between income group and house type and ownership of substantial household assets also provide insights into characteristics of poverty. As noted above, overall 96% of households own the dwelling they live in; for households in the lowest income quartile the rate of house ownership is 93% and for households in the highest income group it is 98%. Table 4.4.6 shows that only households below the poverty line live in houses with walls constructed from simple materials such as bamboo and thatch and 52% of households below the poverty line compared with 76% of households in the highest income group live in houses with walls constructed from brick or concrete.

Table 4.4.6 – Construction Materials of House by Income Quartile

Income quartile	Walls (%)			Roof (%)	
	Simple	Wood	Brick/ concrete	Concrete	Corrugated iron/ cement fiber
1	4.8	42.9	52.4	14.3	85.7
2	0.0	36.0	64.0	24.0	76.0
3	0.0	30.4	69.6	32.6	67.4
4	0.0	24.4	75.6	31.1	68.9
Total	1.0	33.3	65.6	25.7	74.2

Source: PSA household survey (September/October 2011)

157. A large proportion of the poorest households (86%) live in houses with a roof of corrugate iron or cement fiber compared with 69% of households in the highest income group.

158. In terms of ownership of substantial assets such as means of transportation or a refrigerator; a much smaller proportion of households in the lowest income group (17%) own a vehicle while a third of households in the 3rd income group and 38% of households in the 4th income group do, motorbike ownership increases from 91% of households in the lowest income group to 96% of households in the highest income group while bicycles are owned by two-thirds of households in the lowest income group they are owned by 82% of households in the highest income group.

159. A refrigerator is owned by a large proportion of households irrespective of income, however, all households in the highest income group own this appliance (Table 4.4.7).

Table 4.4.7 – Household Asset Ownership by Income Quartile

Income quartile	Ownership of assets (%)			
	Vehicle	Motorbike	Bicycle	Refrigerator
1	16.7	90.5	66.7	92.9
2	24.0	98.0	74.0	95.7
3	32.6	93.5	84.8	98.0
4	37.8	95.6	82.2	100.0
Total	27.9	94.5	77.0	96.7

Source: PSA household survey (September/October 2011)

Vulnerability

160. Vulnerable households include those who might suffer disproportionately from the development process through direct or indirect impacts or face the risk of being marginalized through unequal access to benefits of economic growth, and are considered to include:

- Households with persons falling under the generally accepted indicator for poverty (as discussed above);
- Divorced or widowed female headed households with dependents and low income;
- Households with disabled or invalid persons; and
- Elderly households with no means of support.

161. There are 42 households falling below the poverty line of 240,000 kip per month per household member. Of the 66 household headed by women, 40 are headed by single women who have dependents; excluding those households falling below the poverty line, there are 11 households that are low income. A total of five households have members with some form of disability, two of which fall below the poverty line and are therefore already included, another three are low income households and are considered vulnerable. There are eight households headed by an elderly person, four of these fall below the poverty line and a fifth is low income and without support (labor or dependents) and therefore considered vulnerable.

162. In total there are 57 households (29%) that are considered vulnerable by virtue of the foregoing definition. Table 4.4.8 shows the number of households falling into each classification of vulnerability.

Table 4.4.8 – Vulnerability of Households

Category of vulnerability	No. of households
Households falling below poverty line	42
Low income HH headed by single female + dependants (excl. HH below poverty line)	11
Low income households with disabled members (excl. HH below poverty line)	3
Elderly with no means of support (excl. HH below poverty line)	1
Total	57

Source: PSA household survey (September/October 2011)

4.5. Access to Urban Infrastructure and Services

4.5.1 Coverage and Use of Infrastructure and Services

163. The towns offer a range of infrastructure along with various social and economic services and facilities, and households have connected to a number of utilities. Electricity connection is universal for the households captured in the survey, and connection to the town water supply ranges from 84% to 98% in three villages, none of the surveyed households in Ban Sok stated they were connected to the town supply (most of these households (98%) are connected to a private well).

164. Table 4.5.1 shows that Ban Sok in general is poorly served by infrastructure and utilities with the smallest proportion of households connected or with access to the range of services canvassed in the survey

Table 4.5.1 – Access and Connection to Utilities

Village	Connections/access to services and utilities (%)							
	Electricity	Municipal water supply	Private well	Hot water system	Flush/pour toilet	Sanitation	Telephone	Regular solid waste collection
Nakae	100	96.0	2.0	66.0	98.0	96.0	12.0	80.0
Nalao	100	84.0	18.0	68.0	98.0	80.0	60.0	98.0
Sok	100	0.0	98.0	62.0	96.0	38.0	4.0	64.0
Thahae	100	98.0	2.0	82.0	98.0	96.0	14.0	98.0
Total	100	69.9	31.1	69.5	97.5	77.5	22.5	85.0

Source: PSA household survey (September/October 2011)

165. Disaggregating the data by income group it is evident that poor households (1st income group) and low income households (2nd income group) are not as well covered by essential urban infrastructure and services as those in the higher income groups. A larger proportion of the poor also rely on water from wells rather than the municipal supply (discussed further below).

Table 4.5.2 – Coverage of Services by Income Group

Income group	Connections/access to services and utilities (%)				
	Municipal water supply	Private well	Sanitation	Solid waste collection	Telephone
1	64.0	38.1	69.0	78.6	19.0
2	71.4	36.0	70.0	82.0	15.0
3	69.6	24.4	78.3	84.4	22.0
4	75.6	26.1	86.7	91.0	20.5
Total	69.9	31.1	77.5	85.0	22.5

Source: PSA household survey (September/October 2011)

Water Supply

166. Of the households connected to the municipal supply, 81% stated the supply was adequate for basic living needs and also enough for gardening and other purposes. Households in Thahae village stated they needed to supplement the water they receive from the town supply by buying bottled water, obtaining it from a private well and collecting rainwater. The cost of purchasing additional water averages 37,000 kip per month; with poor households spending an average of

36,375 kip/month and households in the highest income group spending 40,667 kip/month to supplement the town supply.

167. In terms of the perceived quality of the water obtained through the municipal system, only two of the connected households stated they would not drink the water before treating it. The majority of households treat the water by either boiling or applying some form of treatment (i.e. sterilizing tablets, filtering or other means) before drinking or using it. Households boil between up to 150 liters per day depending on the season and size of household.

168. None of the households connected to the town supply sell water to other households.

169. For households not connected to the town supply, the main source of water is similar in both wet and dry seasons. Most households (77%) obtain the water they need from a well, 2% buy bottled water, and 2% collect water from a stream or river. The costs of purchasing bottled water ranges from 3,600 to 72,000 kip per month, with average cost of 68,800 kip per month.

170. Poor households are the only households (9%) collecting water from streams and rivers and less than a fifth (18%) of poor households have a well with a pump compared with 70% of households in the highest income group, most poor households (73%) and a third of low-income households rely on unlined and unimproved wells as the source of water for their household.

Table 4.5.3 – Water Sources for Non-Connected Households

Income group	Source of water for non-connected HHs (%)		
	Well with pump	Well	Natural source
1	18.2	72.7	9.1
2	66.7	33.3	0.0
3	69.2	30.8	0.0
4	70.0	30.0	0.0

Source: PSA household survey (September/October 2011)

171. Some 16 of the households stated that members of their household had become sick in the past year with some form of water-borne illness (WBI), including nine male children, four female children, three male adults and 13 female adults. These people were sick for a total of 38 days. Three-quarters of the households with members suffering from WBIs are poor. The cost of treatment ranged between 17,000 kip and 300,000 kip with the average cost of treatment being 94,200 kip.

Sanitation and Sewerage

172. Most households (98%) in the survey sample use a flush/pour latrine, 1% use a bucket emptied elsewhere, and another 1% use either a public toilet or “open” toilet (stream, forest or field) and 10% described the toilet as “other”. All households in the 3rd and 4th income groups use flush/pour latrines compared with 92% of poor households. It is only poor households that use a bucket (5%) or an “open” toilet (2%).

173. All households in the highest income group and 98% of households in the 3rd income group compared with 85% of poor households own the toilet their household uses. For the poor households not owning the toilet they use, they either make use of a public toilet or use the toilet belonging to a friend or neighbour.

174. A large proportion of households (89%) stated the latrine they used was connected to a septic tank; 91% of households in the highest income group compared with 83% of poor households. For those households with septic tanks 10% are connected to a soakage pit and 3%

discharge to the yard or garden or field, the largest proportion of households discharge to a public drain (41%) or canal (39%).

175. The main reason given by 73% of households for not connecting to a septic tank was that they did not know what one was, 2% of poor households (compared with none of the households in the other income groups) stated the cost of connecting was too high and they could not afford it.

176. To try and get a handle on coverage by sewerage, households were asked where the wastewater (excluding toilet water) generated by their household discharged to. Some 9% of households stated it discharged directly to the yard, garden or onto the road, two-thirds of households stated it discharged to a public drain or canal, 4% stated it discharged to a field, and for the remainder of households discharges of wastewater were poured into the toilet, or to stream or river. A larger proportion of poor households (21%) compared with 2% of households in the highest income group discharge wastewater to the yard or garden and conversely a larger proportion of households in the high income group (a third) discharge to a canal compared with no poor households.

177. Nine households recorded members becoming ill with WBIs from open sewers with four males and five females becoming ill; four of these households were in the lowest income group (the poor). Sick days included 11 missed work days for the adults and seven missed school days for the children. The average cost of treatment was 214,000 kip, poor households paid 242,500 kip as the average cost of treatment and households in the highest income group paid 100,000 kip as the average cost of treatment.

Solid Waste Collection

178. As noted in Table 4.5.1, 85% of households are serviced by a regular solid waste collection organized by the municipality 79% of poor households and 91% of households in the highest income group). It was noted during consultations (refer to Section 5) that waste collection services are not always reliable; in some cases areas are missed out and in others the waste is not collected according to the allotted schedule.

179. Overall 12% of households get waste collected on a daily basis. Most households (61%) covered by municipal waste collection get their waste collected on a weekly basis (54% of poor households and 68% of households in the highest income group). It should be noted that only poor households have a fortnightly collection (4%). Some 26% of households stated the frequency of waste collection was "other".

180. On average households pay 10,800 kip per month to get their waste collected; with the lowest fee being 6,000 kip per month and the highest being 100,000 kip per month. Poor households pay slightly more than other households, paying 10,552 kip per month (compared with 9,800 kip per month paid by households in the highest income group).

181. Reasons for not using the municipal collection service are varied. It should be noted that no households stated a reason as being the service was not affordable.

182. Table 4.5.2 shows that for a third of households the service is not used because waste is disposed of in another way (burning or throwing it in the river), the collection service not being frequent enough was cited by 27% of households, and the service not collecting all waste leaving the household to still dispose of some waste was given as the reason by 24% of households, and 10% of household stated it was too far to walk to the collection point. For poor households the main reasons were given as still having to dispose of other waste (a third) and infrequency of the collection (29%) while for households in the highest income group the main reasons were because they disposed of waste in another way (38%) and infrequency of the collection service (a quarter).

Table 4.5.2 – Reasons for Not using Municipal Waste Collection Service

Income group	Reason (% of households)
--------------	--------------------------

	Burn or throw in river	Not regular enough	Too far to collection point	Not collect all waste	Other
1	23.8	28.6	9.5	33.3	4.8
2	40.0	20.0	10.0	30.0	10.0
3	30.0	35.0	10.0	20.0	5.0
4	37.5	25.0	12.5	12.5	12.5
Total	32.5	27.3	10.4	24.7	16.9

Source: PSA household survey (September/October 2011)

183. Households dispose of different types of waste in different ways; between 36% and 61% of households get waste to be collected by the municipality. Paper and cardboard and plastic bottles and cans have high recycle value and are therefore among the types of waste that are mostly disposed of through sale to others (accounting for 24% of households), however another quarter of households still burn this type of waste and between 49% and 51% have it collected by the municipality. Between 17% and 27% of households burn waste. Some 37% bury waste soil/stones and 14% bury food scraps or garden cuttings. A small proportion of households simply dump waste elsewhere; plastic bottles and cans (1%), soil and stones (3%) and food scraps and garden cuttings (7%).

Table 4.5.3 – Household Waste Disposal Methods

Waste stream	Disposal method (%)						
	Collected by municipality	Burning	Burying	Dumping elsewhere	Take to collection point	Sell to others	Other
Plastic bottles/cans	50.5	23.5	0.5	0.5	0.5	23.5	1.0
Paper/cardboard	48.5	26.5			0.5	23.5	1.0
Soil/stones	35.5	25.5	17.5	3.0	16.5	1.0	1.0
Food/garden cuttings	60.5	16.5	12.5	7.0	2.0		1.0

Source: PSA household survey (September/October 2011)

184. Recycling is well established in the town's informal sector but it is done in a very labor-intensive way and provides very low incomes; some households earn as much as 50,000 kip per month from selling of recyclable material on a casual basis, average income is in the order of 15,000 kip per month with poor households earning an average of 16,900 from recycling and households in the highest income group earning 18,000 kip per month. A small survey of waste pickers indicates that income between 400,000 kip and 750,000 kip per month can be earned from sorting through and selling waste. Two of the waste-pickers noted that their household also grew and sold rice, otherwise the income from waste picking is the most important source of income in the households.

185. Overall 72% of households stated that improperly disposed of household waste has an impact on the environment and the immediate living area. The most commonly cited effects including creation of bad odors, disease and causing pollution and dirtiness.

4.5.2 Willingness to Pay

Water Supply

186. Some 24% of households stated they would be willing to pay (WTP) for connection to a well maintained public supply. Nearly a third (31%) of poor households compared with 4% of households in the highest income group stated they were WTP for an improved water supply. Households were asked how the fee to use the water should be charged; 9% considered use should be charged by the amount used, and 88% considered the charges should be a pay for use scheme, and 3% did not specify. WTP ranged from 20,000 to 50,000 kip (for the type of use identified), with average WTP for improved water supply being 38,600 kip. For an improved water supply WTP is higher amongst poor households. Poor households stated they WTP 42,000 kip per month whereas households in the higher income groups were WTP 38,000 kip per month.

Sanitation and Sewerage

187. There was not a particularly high level of interest in the possibility of a sanitation fund being established for the purposes of constructing sanitary latrines or septic tanks, with 14% overall expressing interest (14% of poor households, 23% of households in the 3rd income group but only 8% of households in highest income group). More than two-thirds (68%) of households considered that such a fund should be managed by the existing village authority, community group or mass organization (such as Fatherland Front or Women's Union), 18% considered it should be managed by a group representing the people who borrowed from the fund, and 11% stated the fund should be managed by an existing community group (such as the Lao Women's Union or Lao Front for National Construction).

188. The households noted that they would be interested in borrowing money to construct a septic tank if a sanitation fund was established in the village. Assuming no or low interest for the loan, households considered they would be able to repay between 20,000 kip and 600,000 kip per month, the average amount of repayment was 190,000 kip per month. Poor households stated they could afford to repay 140,000 kip per month and households in the highest income group stated they could repay 232,500 kip per month.

189. Some 21% of households stated that if a sewer was constructed near their house they would want to connect their household to it. There was a much higher interest expressed by poor households with 41% and 24% of households in the low income group stating they would want to connect to a sewer compared with 11% of households in the highest income group. WTP for connection to a sewer ranged from 100,000 kip to 500,000 kip, with average WTP in the order of 275,000 kip. It should be noted that only poor and low income households expressed WTP for a connection to sewerage.

Solid Waste Management

190. Overall 39% of households indicated WTP for improved solid waste collection/management; 43% of poor households, 40% of low income households, 30% of 3rd income households and 44% of highest income households.

191. Based on current average monthly payments made by households (10,800 kip), 37% of households were not WTP any more than this. Only 2% of households indicated a WTP of up to 25% more being prepared to pay in the order of 13,500 kip per month for an improved collection and management service.

Contributions to Construction and Maintenance of Infrastructure

192. Nearly all households (96%) stated they thought it was reasonable for government to require contributions for construction and/or maintenance of urban infrastructure and services. All

households in the lowest income group (the poor), and 94% of households in the other income group considering contributions reasonable.

193. Households were asked if they made contributions (in cash or kind such as labor or materials) to the construction and/or maintenance of infrastructure. Table 4.5.5 shows that there is a slightly higher level of contributions to construction (32% of households) than maintenance (30% of households). In terms of contributions to infrastructure construction and maintenance, the largest proportion of households contributed to roads (73% for construction and 78% for maintenance), the second largest proportion of household contributed for schools (71% for construction and 73% for maintenance) while the smallest proportion of households contributed to construction and/or maintenance of the market, health centre and water supply (less than 5% of households in each case).

Table 4.5.5 – Contribution to Construction & Maintenance of Infrastructure

Infrastructure	Household contributions (%)	
	Construction	Maintenance
Roads	72.5	77.5
School	70.5	73.0
Health centre	3.5	3.0
Water supply	3.0	4.5
Sanitation	39.5	21.0
Market	3.5	3.0
Total	32.1	30.3

Source: PSA household survey (September/October 2011)

Overall Willingness to Pay

194. Despite relatively high indications by households of WTP for improved infrastructure and services - 29% overall and ranging from 24% for improved water supply to 61% for improved roads and schools – three-quarters of households responded they did not currently pay for services or infrastructure and they were not prepared to pay. A quarter of households stated they would pay no more than they currently did for the services and only 1% of households stated they were WTP up to 25% more than they currently paid. Improvements to either the health centre or market received the lowest indications of WTP amongst the surveyed households (Table 4.5.6).

Table 4.5.6 – Willingness to Pay for Improved Infrastructure and Services

Infrastructure	WTP for improved infrastructure or services	How much household WTP (%)		
		Do not pay now, not WTP	No more than currently pay	Up to 25% more

Roads	60.1	18.7	78.6	2.7
School	60.7	49.2	48.1	2.7
Health centre	2.2	100.0		
Water supply	23.9	99.5	0.5	
Sanitation	16.9	86.8	12.6	0.5
Market	2.7	99.5	0.5	
Solid waste collection	39.3	61.7	36.6	1.6
Total	29.4	73.6	25.3	1.1

Source: PSA household survey (September/October 2011)

195. There is a marked variation in WTP for different infrastructure and services when the data is disaggregated by income group. With the exception of sanitation, poor households have much higher WTP for all infrastructure and services improvements than other income groups. The WTP of poor households is significantly higher than other groups for roads (81%) and schools (79%) whereas the WTP for the other income groups is between 50% and 58% for roads and between 46% and 62% for schools. While WTP for improvements to the health centre, water supply and market are generally low (less than 10% of households), it is still highest amongst poor households (7%). WTP for improved solid waste management is lowest amongst the 3rd income group and highest among 4th income households (44%) and poor households (43%). The highest income group demonstrates the highest WTP for improved sanitation (28%) whereas in the other three income groups WTP accounts for less than 15% of households (Table 4.5.7)

Table 4.5.7 – Willingness to Pay by Income Group

Income group	WTP by household (%)						
	Roads	School	Sanitation	Solid waste	Health centre	Water supply	Market
1	81.0	78.6	14.3	42.9	7.1	7.1	7.1
2	54.0	62.0	12.0	40.0	2.0	2.0	2.0
3	50.0	45.7	13.0	30.4	0.0	0.0	0.0
4	57.8	57.8	28.9	44.4	0.0	4.4	2.2
Total	60.1	60.7	16.9	39.3	2.2	3.3	2.7

Source: PSA household survey (September/October 2011)

5. Consultation and Participation

5.1. Consultation Undertaken During PPTA

196. Consultation has been undertaken at various stages/points throughout the Project. These are summarized in Table 5.1.1.

Table 5.1.1 – Stages of Consultation in the Project

Project stage	Purpose	Tools/Process
Inception stage and pre-feasibility study	<ul style="list-style-type: none"> Identify stakeholders; Identify key poverty reduction and social development options; Identify work required (plans for action/mitigation plans, frameworks, or other measures) 	<ul style="list-style-type: none"> Incorporation of feedback on initial project concepts; Stakeholder analysis and workshops, confirm who will be involved and how; Screening of issues
SLEDPs	<ul style="list-style-type: none"> Establish levels of participation of stakeholders in current planning; Prepare socio-economic profiles; Identify existing opportunities and constraints on urban development; Identify existing opportunities for participation 	<ul style="list-style-type: none"> Key informant interviews (KIs) and focus group discussions (FGDs) with stakeholders; Workshops; Data collection - participatory rapid appraisal (PRA) techniques; Participatory SWOT analysis
Feasibility study - field investigations	<ul style="list-style-type: none"> Confirm problem analysis; Assess needs, demands, and capacities of beneficiaries; Foster maximum positive impact for women/girls; Develop appropriate mitigation plans, frameworks or other measures if negative effects are unavoidable 	<ul style="list-style-type: none"> Data collection - participatory rapid appraisal (PRA) techniques, and household survey; Willingness/ability to pay survey; Poverty and gender analysis; Stakeholder analysis; Risk reduction options; Analysis focused on affected persons and/or communities
Draft RP/PSA preparation and reporting	<ul style="list-style-type: none"> Detailed identification of risks and impacts; Ensure social concerns are addressed in designs; Involve stakeholders in agreement on preferred design; Maximize poverty reduction and social development impact; Minimize negative impacts (RP) 	<ul style="list-style-type: none"> Consultation and PRA (incl. responses to draft PSA); Analysis; Review of action/mitigation plans or other measures
Finalisation of RP/PSA, disclosure	<ul style="list-style-type: none"> Facilitate stakeholder ownership of final design; Confirm poverty reduction and social development outcomes in project design; Confirm alignment with government and development partner policies 	<ul style="list-style-type: none"> Review of design elements based on responses/comments on draft RP/PSA; Review of project compliance with requirements for action/mitigation plans, frameworks, or other measures

197. The CTDTP has been prepared in a participatory manner with consultations with primary stakeholders and beneficiary communities. During the identification of priority subprojects and preparation of the SLEDPs, consultations were held with the EA, IA and other stakeholder agencies and organizations.

198. Consultations have also been undertaken specifically for the environmental and social impact assessments in an integrated manner, and will be reported in the various reports and plans prepared for each subproject. The purpose of the consultations undertaken for the subprojects has been to; (i) introduce the CTDTP and subprojects; (ii) briefly identify impacts and receive feedback on the impacts and any proposed mitigation measures; (iii) disclose the eligibility and entitlements for

compensation under the CTD; and (iv) record the response of beneficiary communities to the CTD and anticipated impacts, both positive and negative, of each subproject.

199. A Consultation and Participation Plan (CPP) and Stakeholder Communication Strategy (SCS) have been prepared for the CTD. The CPP details the consultations taken to date and establishes the framework for ongoing consultation and participation as the Project moves into its implementation stage.

5.2. Focus Group Discussions

200. For the FS and subproject discussions, consultations have been held with affected/beneficiary communities through focus group discussions (FGDs) with small groups of men and women from the communities. As described in Section 4, a household survey was also undertaken to understand the characteristics of beneficiary households and their access to urban services and facilities.

201. As shown in Table 5.3.1, consultations with small groups of men and women were undertaken in four villages in the vicinity of the subprojects with 73 participants.

Table 5.3.1 – Consultative Meetings with Beneficiary Villages

Date	Location	No. of male participants	No. of female participants	Total
04.10.11	Ban Nalao	11	11	22
08.10.11	Ban Lattanalangsy	8	7	15
14.10.11	Ban Nakae	9	7	16
16.10.11	Ban Sok	10	10	20
Total		38	35	73

Source: PPTA Consultations (October 2011)

5.2.1 Results of Women's FGDs

202. The FGDs with women identified their main livelihood activities as farming (mainly rice cultivation), part-time gardening, bamboo weaving, running small household businesses and shops (including informal stalls by the road-side), casual work (during the garlic and vegetable growing season), market trading, providing part-time house cleaning services, and running small restaurants and bars along the Mekong River in the evenings.

203. The women discussed problems facing poor families, women in poor households had limited abilities in terms of education, skills and access to regular or reasonably well-paid employment, often they cannot provide basic needs for their households (food and clothing). Also noted was the homelessness of many poor families, or they live in very small houses and huts without proper facilities such as running water, latrines, and electricity, they located by the sides of streams or drainage channels and then suffer during rainy season due to floods and sickness. It was commented that many poor households are headed by widows, they have to manage the household and try and earn money, they are faced by many hardships.

204. The women considered the main challenges and issues facing the town in terms of development included; low household incomes; insufficient employment opportunities (especially for poor households) even students who graduate with qualifications cannot get jobs; most people have a lack of skills or experience for the jobs that do exist; increasing social problems associated with crime (burglaries) and drug use; lack of funds for trading; in some households the men do not work, they go out drinking and come home late-they do not help support the household; insufficient

market supply of vegetables; inadequate infrastructure especially roads, poor rubbish collection creating nuisance (flies and rats) and creating poor village environments; the lack of sufficient drainage and poor maintenance leading to blocked drains and pipes caused flooding, many houses were damaged by floods and children became ill; lack of regulated micro-finance facilities offering low interest loans and increasing household debt due to informal credit traders (high interest charged by “loan sharks”); health facilities were difficult to access and were not well serviced or equipped, dengue fever is a real problem in many villages.

205. The development priorities identified in the women’s FGDs included; rehabilitation of the roads and improvement of drainage especially to address the very difficult access during the rainy season; improving sewerage as “bad and stagnant” water remained for long periods (such problems along Santhipap Road were particularly mentioned); improving waste management to prevent nuisance, illness and bad odors; provide improved and more accessible health services and facilities; establish factories (or provide incentives for investment) such as garment or bottled water factories; and, provision of connections to the national electricity grid. The women’s groups identified interventions or measures to address the problems which included establishing micro-credit facilities or revolving funds in the villages (as part of village development funds) for women wanting to establish sewing or handicraft groups; creating jobs for people (especially recent graduates so they stay in town and do not move to other areas); and, supporting children (or their families) to stay on at school so they can at least complete secondary school.

206. When discussing the wastewater treatment plant and sewerage subproject the women noted that this would improve health, particularly for those people living along the currently open channels which convey wastewater, effluent and storm-water run-off, the women also noted that the sewers get blocked with rubbish because the solid waste collection service is not frequent enough. In the rainy season wastewater backs up and floods the low-lying areas adjacent to the Mekong River, some houses are below the road and get flooded, children fall ill (fever, stomach ailments and eye infections) because the flood waters (which can contain sewage and wastewater) can take a long time to recede. Stagnating pools of water are breeding grounds for mosquitoes. The women’s groups considered that there would be general environmental improvements with this subproject, with a cleaner environment, exposure to various illnesses (including dengue fever) will be reduced. The women’s groups determined that the disturbance (dust, noise, need to remove stalls located across the drains during installation of new pipes) in any one area would not be for very long, after the pipes had been installed they could go back to selling etc. The women wondered if it would be possible to ensure that construction vehicles only used certain routes, the roads had been damaged by many construction trucks in the past and they wanted to avoid further any damage. Difficulties in access to the properties was raised, it was explained that, similar to the road improvement subproject, a plan would need to be devised to ensure that access was not impeded during construction.

207. The urban roads improvement subproject was seen to address a number of problems, the main roads were currently seen as too narrow vehicles that parked along the roadside blocked the entrances to the many commercial establishments along the road including one of the main markets, the road pavement is damaged and has many potholes, there are no street lights and it is unsafe at night, inadequate drainage (blocked drains, drains only on one side of the road, and drains being too small for the storm-water creates localized flooding and makes for difficult travel.

208. The women considered that they would benefit greatly from the improvements as they were the majority of stall-holders and goods sellers in the area. The women raised issues about road safety, they were concerned that an improved road surface would encourage drivers to drive faster than they do currently, there is a need for road safety campaigns aimed at bus and truck drivers as well as school children and for the police to enforce traffic and safety regulations. How the construction would be handled concerned the women, their businesses would be disrupted and some of them might even have to move away while the road was being widened, the effects of this on their household income was raised.

209. During these discussions and also during consultations with households affected by involuntary resettlement (IR) impacts it was explained that livelihood restoration measures covered compensation for loss of wages and/or employment during the construction period.

210. Women noted that improving the solid waste management system would require more frequent removal of rubbish and collection of all and not just some of the waste. They noted that the rubbish collection trucks often miss many areas or do not collect all of the rubbish and that causes rubbish to pile up, creating bad smells and encouraging flies and disease, some women thought that breathing in bad smells causes breathing problems; in one FGD it was commented that “solid waste and odor are big issues”. The women were of the view that while the solid waste management subproject would benefit the whole community, women would benefit to a greater degree because they were at home and in the village for longer periods than the men and therefore suffered from the problems created by build-up of solid waste and rubbish much more.

211. The Mekong River embankment protection subproject was seen to have less direct benefit. The women noted that some people would lose their gardens and that the stalls and evening market would be disrupted during construction of the protection works but eventually people would move back there to better facilities, this would benefit the stall-holders and restaurant owners but not necessarily the wider community.

212. Relevant to each of the subprojects, the women identified that employment during construction and opportunities to sell food, water and small goods to the workers were benefits over and above the improvements to health and access brought about by the subprojects.

213. The FGDs touched on environmental and climate change issues to determine whether effects had been noticed. The women noted that there was more rain during the wet season; it starts sooner and is for a longer period, the rains are much heavier (changes in rainfall intensity being noticed). This results in the levels of Mekong River and streams and channels being higher and often causing floods. The weather is hotter than usual and there are more frequent droughts. The women noted that destruction of crops because of drought, and that bamboo and fruit trees being affected by rain and flood were major impacts, adaptation measures included the need to pump water and/or install irrigation systems and change the types of vegetables being grown, other measures included trying to plant the vegetables on higher ground (including raising the ground levels with extra soil) and covering the gardens with plastic sheets to protect from heavy rain.

5.2.2 Results of Men's FGDs

214. The main livelihood activities identified by the men's groups included farming (rice cultivation, market gardening, livestock raising mainly goats, ducks and chickens), tuk-tuk drivers, gold-traders, a number of men operated stalls and small beer shops along the Mekong River in the evenings, seasonal migration to Thailand to work as manual laborers, rubbish collection and waste picking, other livelihood activities undertaken by men in the town included casual labor in a range of activities, and cleaning drains and clearing road-side vegetation. More qualified men were engaged as electricians or carpenters and some even worked in the government.

215. The men's groups noted many of the same socio-economic issues and challenges that were identified by the women, including increasing number of youth becoming addicted to drugs especially amphetamines, the men linked increases in petty crime including burglaries to drug problems and additions; unemployment; and lack of village development funds or revolving funds for providing small lines of credit to people wanting to set up small businesses but did not have sufficient collateral for a bank loan.

216. The men also noted that some households getting into big debt by borrowing from local money-lenders; inadequate infrastructure and urban services including inadequate solid waste collection services combined with people not understanding the consequences (or not caring about) of dumping rubbish in the village creating an unclean environment and health impacts (the men

noted fly infestations especially during the dry season months of April and May), an inadequate safe water supply, no wastewater treatment, and poor condition roads (including lack of street lighting) and drainage in the villages hampering access.

217. Discussing any issues that particularly face the poor, the men's FGDs commented that the poor suffer more from the above as they have fewer opportunities and alternatives, many are landless and often even lack their own houses and live in make-shift accommodation. It was also noted that the poor have to use unclean and unsafe water sources because they cannot afford to connect to the town water supply to pay the bills, drinking water from the local streams etc makes them sick.

218. The development priorities of, and interventions suggested by, the men's FGDs reflected the ranking of the problems, with the first priority seeking to address the infrastructure problems such as water supply, improving sanitation and solid waste management, improving access by widening and paving the roads, and installing proper wastewater treatment facilities, followed by job creation and provision of support for undertaking vocational training, and establishing a drug rehabilitation centre. The men were also of the view that village development funds which could provide financial support at low interest was an intervention that could assist in getting men into jobs.

219. During discussions about the wastewater treatment plant and sewerage subproject, the men's groups noted that treatment plants and a well-designed pipe network were necessary to make sure the sewerage was treated and disposed of properly and also get rid of the bad odor from the drains and open channels. The groups considered installing the new pipes underground was essential for safety (children have fallen into the existing open channels) and to improve access to properties which is currently provided by simple planks of wood laying across the open drains. Negative impacts were identified as the loss of the market garden land at two of the WWTP sites and the need to remove small structures and sellers along the road and affect access when the pipes were being installed. Apart for the land acquisition, the men considered that the subproject would not create long-term negative impacts, just temporary ones. In the long-term the subproject would benefit the whole community.

220. In respect of the urban roads improvement subproject, the discussion was similar to that held by the women's groups, the main roads were currently seen as too narrow vehicles that parked along the roadside blocked the entrances to the many commercial establishments along the road, the roads make for difficult and unsafe travel – there are no street lights and the pavement is damaged and has many potholes, and the drainage is insufficient and causes flooding problems. The men considered that the community would benefit from the improvements but on an individual level, a number of the men raised the issue of the right-of-way taking their land in the late 1990s.¹⁰

221. Like the women's groups, the men noted that the solid waste improvement subproject was necessary to address growing concerns about village pollution and health impacts. Either, the waste collectors left large amounts of rubbish along the streets and roads, or certain areas were not covered by the collection services, and people resorted to collecting the rubbish themselves and some people rely selling waste as part of their household income. The odor from uncollected rubbish was getting worse and also poses health hazards. The men's FGDs considered that all people would benefit from the subproject as flies and odor and their impacts would be reduced.

222. The men noted that awareness raising about recycling and packing and storing waste properly was essential, many people were either ignorant or did not care and their awareness needed to be raised.

223. In respect of the Mekong River embankment subproject the men were most concerned with how the stalls they operated would be affected, it was explained they compensation for lost income

¹⁰ This issue is further discussed in the RP prepared for Kaysone Phomvihane.

would be provided for the construction period and until the stalls were re-established after the construction works were completed. Some men saw that the larger area would allow them to expand their businesses and other people could set up small businesses there, this could create more of a “night market” and promote the riverbank area. The works would “tidy up” the riverbank making it more attractive for tourists.

224. The men considered that through the subprojects there will be many people that could be engaged during the construction period, it was stressed during the consultations that use of local labor should be a priority. They also thought there would be opportunities for women to sell food and other goods to the workers.

225. With regard to climate change issues, the groups identified changes in both the dry season and wet season; in the dry season the temperature is hotter and there have been droughts that last through to the beginning of the rains, while in the wet season the length and intensity of rainfall and subsequent flooding creates problems during the rice harvest. The key impacts identified included crop damage and lower production levels, and sickness associated with both drought and flooding. Some of the coping mechanisms have been to change the type of vegetables grown to more hardy species, some farmers simply have to try and replant the rice if it is not too late in the season.

5.3. Key Informant Interviews

226. A number of KIIs were conducted during the development of the SLEDP and further KIIs were undertaken for the PSA. During the SLEDP process the KIIs were undertaken in order to find out; (i) how best to increase participation in local development planning; and (ii) what the benefits for socio-economic development of the town might be, and also to identify any negative impacts. During the KIIs undertaken for the PSAs, the foregoing was elaborated upon and another important part of the discussions was to identify what additional measures, by linking with existing or ongoing programs (being implemented by government or others) in the town, could be incorporated into the Project to maximize the benefits.

Lao Women's Union – Savannakhet

227. The membership of the Lao Women's Union (LWU) is high representing 35% of the female population of the province. Higher education is attained by a few women but in general women have limited skills and lack confidence to branch out in non-traditional roles or sectors of employment, there is a need to provide women with basic and/or expanded skills and encourage them to participate in community development. Many poor and low-income women have very few skills and do not know how to access programs to help them advance even in small ways.

228. The provincial LWU has participated in training offered by national LWU and also sent members to receive training and upgrade degrees and diplomas in Viet Nam. The LWU also runs its own programs and partners with other agencies providing training on a range of topics. Important programs run by LWU in recent years have included the establishment of village development funds, village savings groups and credit cooperatives and the land ownership certificate program to ensure that land is registered in the name of both male and female heads of household. In 2009 with UNICEF and World Vision International (WVI) LWU has established rice banks in poor villages in eight districts.

229. The LWU participates in meetings and workshops in respect of planning and preparation of plans, participation could be increased further by ensuring that LWU is more actively involved in key decision making processes and a regular exchange of information between LWU and provincial government so the issues facing women in the province are kept on the development agenda.

Chamber of Commerce & Industry

230. The Chamber of Commerce and Industry (CCI) in Savannakhet is very active in the town. The CCI represents some 165 businesses and enterprises and comprises four different associations and six groups with a membership of 200. The CCI noted that the last five years there has been a steady increase in business growth, especially in the transport, small trade, and tourism sectors. The CCI has been active in promoting training programs and runs courses to improve labor and skills within the business community.

231. There are seven different and distinct business zones in the town. Currently there are no private-public partnerships or ventures that CCI members participate in. With the exceptions of Nam Papa, Electricity du Laos and a couple of other state owned enterprises, the majority of businesses in the town are private ventures.

232. According to the CCI the main problems facing the business sector in the town include; (i) insufficient funding and resources; (ii) lack of solidarity between business operators (only 165 of the 1000 enterprises registered in the town are members of the CCI); and (iii) poor condition of, or inadequate, urban infrastructure and services which impedes business growth and is a disincentive for investment.

233. In respect of participation in local development and preparation of socio-economic development plans, the CCI is regularly asked to send representatives to meetings during plan preparation. The CCI considers it could be more useful and provide better insights through completion of a business sector survey or questionnaire that could be included in analysis for the plan preparation. The CCI could then participate in meetings to evaluate the surveys and questionnaires and provide commentary on how to translate the comments into the plans.

Tourism Authority

234. The Director General of the Provincial Tourism Department participated in the KII. The tourism authority represents operators in the tourism service sector (restaurants, guesthouses and hotels) as well as promoting provincial tourism in general. The authority represents 18 hotels, 108 guesthouses and 139 restaurants and cafes. The average occupancy of accommodations is 68% per month, this includes national visitors and business travelers as well as tourists.

235. In respect of participation in local development and preparation of socio-economic development plans, as a part of provincial government, the authority is asked to attend the preparatory and decision-making meetings. Director Generals of departments as well as Provincial Committee Party members are asked to participate in this level of planning.

236. The Tourism Authority could better participate in such planning if each department was permitted to make a brief presentation about critical issues and development goals. Currently, departments attend meetings but are asked to respond to a tabled agenda rather than departments being more proactive in putting forward most pressing concerns and suggestions to address those concerns.

Non-Governmental Organizations and Development Partners

237. KIIs were undertaken with NGOs/training centers and other development partners to understand aspects of employment, unemployment and skill level/training requirements.

238. The Non-profit Association for Rural Mobilization and Improvement (NORMAI) was established in the town in 2006 and is under the umbrella organization of Lao Union of Science and Engineering Associations. NORMAI currently operates in three districts in Savannakhet (in addition to another district in Khammuane), NORMAI does not operate in the districts covered by the CTD. The objective of NORMAI is to improve the quality of life of its target populations (school leavers, the poor, drop-outs) by improving capacity assisting in accessing training and training resources

and up-skilling for particular types of employment. NORMAI also works with government and international organizations to support rural communities in respect of food security.

239. The development agency of the Netherlands - SNV - has been operating in six districts in Savannakhet (including Phine and Sepon) for nearly two years. It is partnering with European Union as well as AusAID and Ministry of Health (MOH) to provide programs covering small-scale water supply and sanitation¹¹, biogas, and rice banks.

240. WVI has been working in Lao PDR since the early 1990s and is supporting community development projects and programs in seven districts in Savannakhet including in Sepon and Phine. According to WVI key problems to be addressed include unemployment, lack of skills and migration from rural areas to the towns increasing pressure on infrastructure and the few jobs opportunities that exist. Programs include assisting in HIV and STIs awareness programs led by others, disaster relief, support to school building, training for the poor, and fish farming and chicken raising to improve agricultural livelihoods.

241. WVI expressed interest in working with the CTDG to implement measures that fit within its core program/sector areas such as HIV awareness and prevention and anti-trafficking.

Village Leaders

242. KIIs were undertaken with the leaders of four randomly selected villages - Houamueang Nuea, Nalao, Phonsavang Tai, and Sayaphoume - to provide background information on levels of participation of villages in provincial and town planning. The villages represent a cross-section of those included in the subproject areas and comprise between 290 households (Houamueang Nuea) and 980 households (Phonsavang Tai).

243. The main problems facing the villages include lack of basic infrastructure and services such as solid waste management, flood control and drainage, roads in poor condition, lack of sanitation as well as social problems such as crime and drug use.

244. With the exception of Nalao which has programs run by ILO and Ministry of Labour and Social Welfare (awareness and promotion of the rights of children) and JICA sponsoring the Lao Bar Association to undertake a community development program, none of the village leaders noted that there were any special projects or programs being implemented in their villages. The leaders commented that awareness raising on a range of issues and topics was required.

245. In respect of participation in local development and preparation of socio-economic development plans, village administration representatives are invited to the District Administration Office for meetings. However, during the discussion for the KIIs it became evident that this is more of information passing exercise (from province to district to village) than true participation and information and issues/concerns sharing. The village leaders are then asked to pass the information on and disseminate to the villagers. When asked how the village administration could better participate in development and planning decisions in the town, keeping closer liaison and coordination with town and district officers along with better information flow between administration levels rather than top down were mentioned.

Waste Pickers

246. KIIs with people who pick through waste (known as waste pickers or rag pickers); two women and four men were undertaken. Some background data on these households reveals that the average size of the household of the waste pickers is six people and ranged from four-person households to 12-person households. The number of years picking waste ranged from one year to nine years, and in three households the person interviewed was the only member of the household picking waste; in the other households two-three other people also picked waste. None of the

¹¹ Through the Sustainable Sanitation and Hygiene for All (SSHA) program.

people interviewed stated that the other people in their household picking waste were children (i.e. 15 years old or younger). In four of the six households waste picking was the main or primary income source, and in two households it was the second source of income. In two households waste picking was the sole source of income.

247. The total income earned in a month ranged from 400,000 kip to 750,000 kip, and as shown in the table below, represents between 13% and 100% of household income from all sources (the average proportion across the six households being 62% of monthly household income).

Table 5.3.1 – Data from KIIs with Waste Pickers

No. of years picking waste	No. of people in HH picking waste	Total income from waste picking (kip)	Total monthly income (kip)	% from waste picking	Main income	Secondary income
3	3	400,000	700,000	57	Waste picking	Waste collection
5	2	600,000	600,000	100	Waste picking	
5	2	500,000	600,000	83	Waste picking	
1	1	750,000	750,000	100	Waste picking	
9	1	750,000	6,000,000	13	Rice growing	Waste picking
1	1	750,000	4,000,000	19	Other	Waste picking

Source: KIIs CTD PPTA (December 2011)

248. The people involved in waste picking indicated that poverty, homelessness, lack of skills and education and illiteracy and inability to find other forms of work were the main reasons they picked through rubbish. One person interviewed stated that of the four working age members all four were unemployed. Other of the people interviewed noted they sometimes did other casual work but waste picking they could every day and they knew they could earn between 600,000 and 750,000 per month by selling recyclables.

249. Each of the waste pickers noted that they had no collateral in order to rent a stall space or premises or start-up for a small business, in order to do something else they would need to training and ongoing assistance such as a small loan and management support.

5.4. Summary Stakeholder Analysis

250. The KIIs and FGDs show high levels of support for the subprojects to be developed under CTD P, a number of benefits have been identified. Some negative impacts have also been identified.

251. For the WWTP and sewerage subproject the primary stakeholders are the households and commercial enterprises (including market stall holders) who currently live along the open channels that convey combined wastewater and run-off and will benefit from improvement in health (reduced WBIs and missed work and school days) and their immediate urban environment.

252. This subproject will also contribute to addressing flooding issues along with the road improvement subproject. Secondary beneficiaries are the wider town population who will benefit in similar ways, for example health benefits and an improved urban environment (reduced potential for flies and disease vectors). Refer to Table 5.4.1.

Table 5.4.1 – Summary Stakeholder Analysis for WWTP and Sewerage Subproject

Stakeholder	Primary	Secondary	Key Stakeholders' Interest in the Project
-------------	---------	-----------	---

Households in beneficiary area	X		Improved and regular wastewater collection and treatment reduces localized pollution; Improved public health status and living conditions in immediate area (adjacent to existing open channels and sewers); Improved environment and reduced nuisance (smell and flies) for households; Potential increase in land values as result of foregoing; Opportunities to participate in environmental health and hygiene awareness raising campaign; Opportunities to participate in construction as workers
Private investors and business operators		X	Induced business opportunities from incremental improvements in urban environment and improved services and infrastructure; Do not have to install individual WWTPs or sewerage connections
Small business operators	X		Removal of barriers to trade from bad smells putting off customers and improvements to livelihoods; Improved income generation during construction;
Municipality	X		As major stakeholder in infrastructure and service provision; Potential to levy higher fees/taxes with improved services; Can encourage additional investors to area as services expanded to cover wider area and meet basic requirements for infrastructure and service provision
Wider community		X	Improved public health status and living conditions (reduced flooding, reduced nuisance - smell and flies); Opportunities to participate in environmental health and hygiene awareness raising campaign

253. For the urban road and drainage improvement subproject the primary stakeholders are the people living or operating businesses along the three roads, road users, road-side stall holders and street vendors, as well as the wider population catchment that rely on the roads for access to facilities and services.

254. The benefits, as identified by the FGDs, were considered to include participation in construction and opportunities for local contractors, increased selling opportunities for street vendors, local cafés and food sellers during construction, and following construction the improved roads would benefit most people, with specific benefits identified for enterprises and those engaged in marketing with it being easier to carry goods and traffic volumes increasing. Transport operators (passenger transport services and cargo/freight cartage) are another primary beneficiary who can respond to improved access and increased demand for services. Secondary beneficiaries are those who will benefit in less direct ways, for example street vendors, marketers and merchants could potentially have more customers once the congestion and parking issues are resolved. Refer to Table 5.4.2.

Table 5.4.2 – Summary Stakeholder Analysis for Urban Roads Subproject

Stakeholder	Primary	Secondary	Key Stakeholders' Interest in the Project
-------------	---------	-----------	---

Road users, members of households in catchment of three roads	X		Improved access to markets, key social services (health and education services) and urban employment opportunities; Reduced local flooding from improved drainage (household and public health); Small household retail businesses will become more profitable as traffic volumes and local incomes rise; Access to the markets on the roads will improve (reduced hazardous parking etc); Issues associated with speeding, concerns regarding safety and accidents need to be addressed
Transport operators	X		Increased business opportunities to carry passengers and goods; School and tourist bus and taxi services will improve; Need for awareness raising with drivers (truck and bus) in respect of speed and safe driving
Street vendors and markets along the roads	X		Temporary impacts during construction will need to be addressed; Improved access, increased traffic and passenger flow and reduced congestion can increase volume of sales; Access and mobility improved (convenience, comfort and ease of travel)
Health and education personnel		X	Services in schools and the health centre disrupted during rainy season flooding can resume without interruption; Need to work with Police and transport operators to ensure road safety (reduced road accidents and injury)
Police/traffic police	X		Improved security (including street lighting) deterrent for petty and local criminals; Civil defence capability of local area improved; Need to enforce existing road rules; Involved in delivery of road safety campaign
Businesses, processors and exporters		X	Assuming other constraints to the sector/industry are overcome, production in the area will increase, diversify and modernize as it becomes easier to get products to market; Improved access will encourage further investors in the special economic zones
Municipality	X		As major stakeholder in infrastructure and service provision; Potential to levy higher fees/taxes with improved services; Can encourage additional investors to area as services expanded to cover wider area
Merchants		X	Improved access and increased traffic and passenger flow can increase volume of sales to small businesses and households

255. For the solid waste management improvement subproject the primary stakeholders are the households and commercial enterprises (including market stall holders) who will benefit from regular and reliable solid waste collection and improvement in their immediate urban environment. Waste pickers are primary stakeholders who must be afforded opportunities to participate in any formalized waste selling/recycling scheme and must not be excluded from picking through waste as a result of improving operations at the site as this would further marginalize them and deepen their poverty. The private contractors and/or municipality should be encouraged to formally employ these people as sorters when the MRF is operational.

256. Private contractors may benefit from offering collection services in an improved solid waste management system. Secondary beneficiaries are the wider town population who will benefit in less direct but no less tangible ways, for example health benefits and an improved urban environment (reduced litter, reduced waste build-up, reduced potential for flies and disease vectors). Refer to Table 5.4.3.

Table 5.4.3 – Summary Stakeholder Analysis for Solid Waste Management Subproject

Stakeholder	Primary	Secondary	Key Stakeholders' Interest in the Project
Households in beneficiary area	X		Improved and regular waste collection and management reduces localized pollution from informal and illegal rubbish dumping; Improved public health status and living conditions in immediate area; Improved environment and reduced nuisance (smell and flies) for households currently adjacent to, close proximity of, existing dump-site; Opportunities to earn additional income from 'recyclables'; Opportunities to participate in recycling, environmental health and hygiene awareness raising campaign
Private contractors	X		Increased business opportunities in offering regular and reliable waste collection services
People trading in waste products; Waste pickers	X		MRF can formalize recycling and trade in waste; Must not be excluded from picking through waste at the dump-site or landfill as contributes to large proportion of income; Potential employment as sorters when MRF operational; Provides opportunity for income generation through sale of waste collected from town or sorted at landfill; Opportunities to participate in recycling, environmental health and hygiene awareness raising campaign
Wider community		X	Improved public health status and living conditions (reduced nuisance - smell and flies); Opportunities to earn additional income from 'recyclables'; Opportunities to participate in recycling, environmental health and hygiene awareness raising campaign

257. For the Mekong River embankment protection subproject the primary stakeholders are the households and commercial enterprises (including evening market stall holders) along the riverbank and pedestrians and tourists who will benefit from a larger area along the riverbank and improved services and facilities and formalization of the river-side area. Secondary beneficiaries are the wider town population who will benefit from improved riverbank protection (reduced risk of erosion or flooding/over-topping in certain areas). Refer to Table 5.4.4.

Table 5.4.4 – Summary Stakeholder Analysis for Mekong River Embankment Subproject

Stakeholder	Primary	Secondary	Key Stakeholders' Interest in the Project
Households in beneficiary area	X		Improved safety along the riverbank; Potential for improved income generation during construction (selling goods); Opportunities to participate in construction as workers; Loss of seasonal gardens need to be compensated
Private contractors	X		Can bid for construction package
Small business operators (stall holders)	X		Larger area, can expand businesses or new businesses can establish; Improved conditions and access to utilities; More formalized parking area makes area safer and more attractive; Require compensation for loss of income during construction and until businesses can be re-established
Riverbank gardeners	X		Will lose area of riverbank currently gardened (corn) during dry season; Will be compensated for crop losses through implementation of RP
Wider community		X	Improved riverbank area for recreation, traditional festivals and events and aesthetics; Improved public image of a key attraction in the town

6. Gender Assessment

6.1. Gender Policy Framework

258. Lao PDR is a party to several international treaties that promote gender equality, including the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and the Convention on the Rights of the Child. Lao PDR also recently became a party to the Protocol to Prevent and Punish Trafficking in Persons, Especially Women and Children and the Protocol Against the Smuggling of Migrants by Land, Sea and Air. Lao PDR has also taken steps to implement the plans of action from international conferences such as the International Conference on Population and Development in Cairo and the Fourth World Conference on Women in Beijing.

259. The Government established a National Commission for the Advancement of Women (NCAW). This high-level body is mandated to develop and coordinate implementation of a national policy and action plan for women's advancement. The Lao Women's Union (LWU), one of four mass organizations authorized in the 1991 Constitution, continues to support Lao women's development as well as political mobilization through a network that extends to the village level.

260. In 2004, the National Assembly adopted a bill to protect women's rights and interests and to ensure equality between women and men. The law on Women's Development and Protection defines principles, rules and measures relating to the development and protection of women so as to promote their knowledge and capabilities; to promote gender equality; to combat trafficking in persons, women and children; to combat domestic violence; to uphold women's status in society; and to encourage women to participate in national defense and development (Article 1). The Law also provides provisions for the management and monitoring of women's development and the protection of their rights and interests.

261. The Gender Resource Information and Development (GRID) Project, a Lao Women's Union initiative, provides gender training, conducts gender-related research, and collects gender resources through centers in Vientiane and four other locations throughout the country.

262. The Gender Profile prepared by GRID notes a number of factors that have been identified in the consultations with women's groups and key informant interviews (KIIs) undertaken for the Project. These include: (i) informal sector absorbs the great majority of Lao women, who tend to own small businesses mainly in retail and textiles; (ii) the lack of education and limited economic opportunities and access to resources pushes women into the informal sector and small-scale enterprises; (iii) women have limited mobility, and traditional customs do not allow women to work far from the village; (iv) women entrepreneurs face difficulties dealing with cumbersome registration procedures, in part due to their low level of education and limited time; and (v) more women than men work in the formal sector, although women tend to be found in low-skilled jobs, rarely in management positions.¹²

263. ADB's country gender strategy for Lao PDR is built on Goal 3 of the MDGs. Under this framework, ADB will promote: (i) equal capabilities in women and men and girls and boys; (ii) equal access to resources and opportunities; and, (iii) equality in decision making and rights.

¹² GRID & World Bank; Lao Gender Profile, Vientiane, Lao PDR (November 2005)

264. This gender strategy framework is consistent not only with the MDGs but also with the guarantees of equal treatment in the Lao Constitution and laws and with the gender strategies included in both the NGPES and the NRDS. It also can be linked to ADB's three core operational areas of inclusive social development, pro-poor and sustainable economic growth, and good governance.¹³

6.2. Characteristics of Households Headed by Women in Project Area

265. As noted in Section 4.3, a third of households are headed by women; the village with the largest proportion of households headed by women (50%) is Ban Sok and the village with the smallest proportion (18%) is Nakae. Female heads of household are older than male heads of household; 82% of male household heads are aged between 20 and 45 years compared with two-thirds of female household heads while 30% of women heading households are aged 61 years or older compared with 14% of the men heading households (Table 6.2.1).

Table 6.2.1 – Age by Sex of Household Head

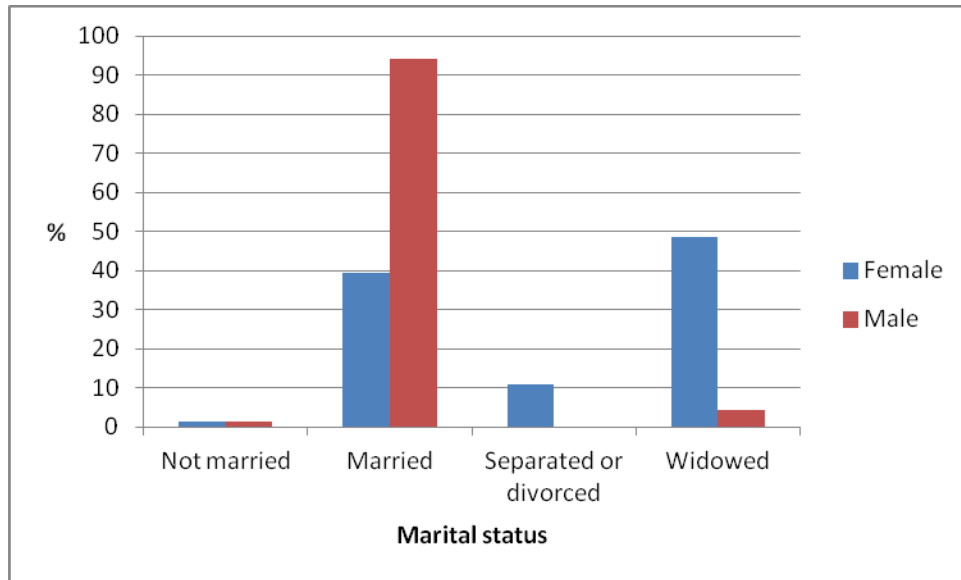
Sex of household head	Age group in years (%)				
	20 to 30	31 to 45	46 to 60	61 to 75	> 76
Female	3.0	16.7	50.0	21.2	9.1
Male	3.0	23.9	58.2	12.7	2.2
Total	3.0	21.5	55.5	15.5	4.5

Source: PSA household survey (September/October 2011)

266. Graph 3 shows the significant difference in the proportion of single women who head households compared with single men. While 94% of male household heads are married only 39% of female heads of household are, single females heading households account for 61% of households (compared with only 6% of households headed by men). Nearly half (48%) of female household heads is widowed. Similar proportions of female and male heads of household are not married, but only female headed households are headed by a separated or divorced person (accounting for 11% of households).

Graph 3 – Marital Status by Sex of Household Head

¹³ ADB; Lao Country Gender Assessment: Gender, Poverty and the MDGs, Manila, Philippines (2004)



Source: PSA household survey (September/October 2011)

267. While there is a larger proportion of female headed households with nine or more people (17% compared with 14%) and a similar proportion with eight people, overall households headed by women are smaller than male headed households; 14% of the households that are headed by women are one or two person households (and there are only women in single person households accounting for 2%) and 5% are households made up of three people compared with 2% and 3% of male headed households respectively. Some 46% of households headed by men compared with a third of household headed by women have four for five people. Households headed by women are no larger than twelve people, while households headed by men have as many as 16 people (Table 6.2.2).

Table 6.2.2 – Size of Household by Sex of Household Head

Sex of household head	Household by number of members (%)							
	1 to 2	3	4	5	6	7	8	9+
Female	13.6	4.5	22.7	12.1	12.1	7.6	10.6	16.7
Male	1.5	3.0	23.1	23.1	14.2	9.7	10.4	14.2
Total	5.5	3.5	23.0	19.5	13.5	9.0	10.5	15.0

Source: PSA household survey (September/October 2011)

268. Dis-aggregating the results by head of household and spouse of head of household by sex, the survey data shows that overall female adults are less educated than male adults; overall 5% of household heads and 18% of their spouses do not have a formal education; 21% of females compared with 7% of males are without an education. Similar proportions of females and males (18%) have an incomplete primary education as the highest level attained. A larger proportion of females (23%) than males (14%) have only a primary education. Larger proportions of males have either some or a complete secondary education and have gained a tertiary level education.

Table 6.2.3 – Level of Education by Sex of Household Head

Sex of HH head	Level of education (%)
----------------	------------------------

and spouse	None	Some primary	Complete primary	Some secondary	Complete secondary	Tertiary
Female head	9.8	24.6	18.0	3.3	23.0	21.3
Female spouse	32.8	12.1	27.6	3.4	20.7	3.4
Total	21.3	18.3	22.8	3.4	21.8	12.4
Male head	2.3	15.9	14.4	8.3	25.0	34.1
Male spouse	12.0	19.5	13.5	16.5	24.1	14.3
Total	7.2	17.7	14.0	12.4	24.5	24.2

Source: PSA household survey (September/October 2011)

269. Kaysone Phomvihane has a high literacy rate; 87% of heads of household and 76% of their spouses are recorded as being literate. However, there are clear gender disparities in literacy with 93% of male compared with 74% of female heads of household and 83% of males spouses compared with 61% of female spouses being literate.

270. Even though only households headed by women live in a house with walls constructed from simple materials such as bamboo or thatch, Table 6.2.4 shows that households headed by men tend to live in less substantial houses; 37% compared with 26% of female headed households live in a house with wooden walls and 63% compared with three-quarters of female headed households live in a house with wood and brick or concrete walls.

271. A larger proportion of male headed households (74% compared with 68%) live in houses with a roof of either corrugated iron or cement fiber as opposed to a house with a concrete roof (32% of female compared with 26% of male headed households).

Table 6.2.4 – Main Construction Materials of Houses

Sex of household head	Walls				Roof	
	Simple	Wood	Wood + brick	Concrete	Corrugated iron/ cement fibre	Concrete
Female	1.5	25.8	28.8	43.9	68.2	31.8
Head	0.0	36.6	20.9	42.5	73.8	26.1
Total	0.5	33.0	23.5	43.0	72.0	28.0

Source: PSA household survey (September/October 2011)

272. All of the households headed by women stated they own the house their household lives in (compared with 94% of households headed by men). It was noted in Section 4.3 that for the larger proportion of households the title of land is registered in the name of the male only (32%) rather than in the name of only the female (29%) or registered in both their names (24%).

6.3. Women's Livelihood Activities, Income and Poverty

273. Livelihood activities include any activities that support a household and comprise paid and unpaid work.

274. LECS-4 provides data on use of time for household members 10 years and older, with the average person spending 5.8 hours per day on livelihood and/or economic activities. The table below summarizes the findings of the LECS-4 dis-aggregated by male and female. Males spend an average of 4.6 hours per day (compared with 3.9 hours for females) on livelihood and subsistence activities, including 3.0 hours (compared with 2.2 hours per female) taken up with agriculture, fishing or hunting. In any day females spend more time collecting water and firewood, making handicrafts and working in the household or other small business. Household work is undertaken mostly by

females (2.4 hours per day compared with 0.5 hours by males), and females spend 6.3 hours, compared with 5.1 hours spent by men, on livelihood/subsistence and household activities. The table also shows that females spend less time on school and on sleeping/leisure time than men.

Table 6.3.1 – Use of Time by Gender

Activity	Hours per day		
	Female	Male	Total
Livelihood & subsistence activities:	3.9	4.6	4.2
Employed work	0.3	0.9	0.6
Household or other business	0.7	0.4	0.5
Agriculture/fishing/hunting	2.2	3.0	2.6
Collecting firewood/water	0.4	0.2	0.3
Handicraft	0.3	0.1	0.2
Household work	2.4	0.5	1.5
School	0.9	1.2	1.0
Sleeping, eating, leisure	15.2	15.9	15.5
Travel + other	1.6	1.8	1.8
Total livelihood + household activities	6.3	5.1	5.7

Source: LECS-4 (May 2009)

275. The PSA survey data shows that unpaid and household work is undertaken mostly by females (7.7 hours per day compared with 7.4 hours by males). In terms of performing unpaid chores and domestic duties, the participation rates for males and females are the same at 18%. More males than females aged 15 years and older undertake paid work, representing 39% of all males and 27% of all females aged 15 years and over. However, the average number of hours of paid work per day is similar for men and women with 8.4 hours for men and 8.3 hours for women (Table 6.3.2).

Table 6.3.2 – Unpaid and Paid Work by Sex

Type of work	Sex	Participation in work (15 years +)			
		Total no. of people	Total no. of hours	Av. no. of hours per day	% rate
Unpaid	Males	80	593	7.4	18.1
	Females	88	680	7.7	17.7
Paid	Males	170	1424	8.4	38.5
	Females	132	1101	8.3	26.5

Source: PSA household survey (September/October 2011)

276. As noted in Section 4, the main source of income for beneficiary households is wages from government (39%) and from the private sector (22%) followed by trade/sales or small business (12%) and daily or casual labor (8%). Income from government employment is important to households; 42% of male headed and 35% of female headed households citing it as the primary source of income. Some 27% of households headed by women compared with 20% of households headed by main stated primary income as wages from the private sector whereas 16% of male headed households (compared with 14% of female headed households) stated trade or sales (including street vending and market trading) was the primary income. Daily or casual labor is also important as a source of income with 11% of female headed and 7% of male headed households

citing it as the most important source of income. Construction and transport are cited as primary income sources for 6% of female headed households and 15% of households headed by a man.

277. Table 6.3.3 shows that 64% of males compared with 43% of males aged 15 years and older earn income from various activities; 58% of males compared with 41% of females earn wages or regular salary and 36% of males compared with 23% of females earn income from casual or daily labor.

278. Participation rates of females are higher than those of males in informal trading; 11% and 25% of females compared with 1% and 4% of males are engaged in street vending or market trading respectively.

Table 6.3.3 – Participation in Income Earning by Sex of Earner

Sex of income earner	Engagement in income earning by sex of earner (%)				
	Wages/salary	Casual labor	Street vending	Market trading	Total
Males	57.7	36.2	1.3	4.7	63.9
Females	40.9	22.7	11.1	25.3	43.0

Source: PSA household survey (September/October 2011)

279. Dis-aggregating by sector of work, Table 6.3.4 indicates that while employment in the government and private sector accounts for large proportions of both males and females, there are larger proportions of males engaged in these sectors.

280. A significantly larger proportion of females (35%) compared with 7% of males are engaged in trade/sales while the converse is true for employment in construction and transport which accounts for 11% and 5% of males but only 1% of females. If more than a third (37%) of females compared with 14% of males are engaged. Some 4% of females compared with 1% of males are employed in the garment industry.

Table 6.3.4 – Sector of Work by Sex of Earner

Sector	Sex of HH member (%)	
	Male	Female
Government	32.6	23.4
Private sector	37.2	25.7
Trade/sales/small business	6.7	34.6
Hospitality/tourism	1.1	0.9
Construction	10.6	1.4
Agriculture/forestry	0.7	1.9
Garment	0.7	3.7
Transport	4.6	0
Other	5.7	8.4

Source: PSA household survey (September/October 2011)

281. According to the survey data, in respect of income, households headed by women are comparatively better off than those headed by men; a larger proportion of male headed households compared with female headed households fall below the poverty line and in the 2nd income quartile which includes those most vulnerable to economic shocks. There is a larger proportion of male headed households in the highest income group (a quarter) compared with 23% of households headed by women (refer to Table 6.3.5).

Table 6.3.5 – Distribution across Income Groups by Sex of Household Head

Sex of HH head	Income group (%)			
	1	2	3	4
Female	21.4	26.8	28.6	23.2
Male	23.6	27.6	23.6	25.2
Total	23.0	27.3	25.1	24.6

Source: PSA household survey (September/October 2011)

282. In terms of access to and ownership of other assets as an indicator of poverty, Table 6.3.6 shows larger proportions of households headed by men than households headed by women own significant assets such as means of transport or household appliances.

Table 6.3.6 – Household Asset Ownership

Sex of head of household	Ownership of assets (%)						
	Vehicle	Motorbike	Bicycle	VCR/DVD player	Television	Refrigerator	Stereo/CD player
Female	19.7	86.4	78.8	81.8	93.9	95.5	47.0
Male	32.1	98.5	76.1	88.1	97.0	97.0	76.1
Total	28.0	94.5	77.0	86.0	96.0	96.5	66.5

Source: PSA household survey (September/October 2011)

6.4. Participation in Household and Community Decision Making

283. Respondents were asked who was responsible for providing information to other family members. Table 6.4.1 shows that for teaching family members about treating water before it is used, how to prepare and cook food and washing hands after going to the toilet or before eating in the majority of households (between 69% and 75%) this is undertaken by men and women together while for between 22% and 30% of households it is left up to the female. In respect of passing on information about reproductive health, family planning and contraception, in a large proportion of households (43% to 53%) this is left up to individuals and is not explicitly taught by an older male or female. This is most evident in teaching reproductive health, family planning and contraception to boys where it is only actively undertaken in 47% of households. Personal hygiene is taught to boys and girls by both male and female in over a third of households and taught to girls by a female in 22% and taught to boys by a female in 16% of households. Overall in less than 5% of households an older male takes the responsibility for passing on such information.

Table 6.4.1 – Responsibility for Provision of Information in Family

Information/what is taught	Who teaches in HH (%)			
	Both	Female	Male	Don't

Washing hands after going to the toilet	75.0	22.0	3.0	
Washing hands before eating	74.5	22.5	3.0	
To boil or treat water before drinking	73.5	25.5	0.5	
How to prepare and cook food	69.0	29.5	1.5	
Repro. health, family planning, contraception/birth control to girls	38.0	19.0	0.5	42.5
Repro. health, family planning, contraception/birth control to boys	37.0	7.0	3.0	53.0
Personal health and hygiene to girls	54.5	22.0	0.5	23.0
Personal health and hygiene to boys	56.0	15.5	3.5	25.0

Source: PSA household survey (September/October 2011)

284. In respect of women's involvement and participation in the planning and construction/implementation of community infrastructure, the largest proportion of respondents (57% to 63%) stated they were unsure or did not know whether women had been involved or not. Respondents were, however, consistent in their negative and positive responses, indicating very low levels of women's involvement in either the planning or construction of infrastructure, with a maximum of 6% of respondents stating that women had participated in various aspects of community development as shown in Table 6.3.2.

Table 6.4.2 – Women's Participation in Community Infrastructure Planning & Implementation

Aspect of community development involvement	Don't know	No	Yes
Facilities planning (e.g., location of services/facilities)	57.5	37.0	5.5
Helping establish needs for services/facilities	62.0	32.5	5.5
Providing inputs to meetings where decisions were made	63.0	33.5	3.5
Collecting and managing inputs/contributions from the community	62.0	34.5	3.5
As part of the management committee or group	61.5	34.5	4.0
Participating in construction or maintenance works (as laborers)	66.0	32.5	1.5
Providing food for construction workers	61.0	33.0	6.5
Collecting and managing user fees	57.6	39.4	3.0
Operation and maintenance management (organising people)	57.6	36.4	6.1

Source: PSA household survey (September/October 2011)

285. While a larger proportion of households headed by men stated they attend community and local authority meetings (96% compared with 84%), more females than either males, or both males and females together, attend those meetings as representatives of households.

Table 6.4.3 - Participation in Local Meetings

Meeting	Who attends from household (%)			
	Both	Female	Male	NA
Community meetings	18.2	51.3	23.4	7.1
Local authority meetings	21.6	47.1	27.6	3.7

Source: PSA household survey (September/October 2011)

286. Survey respondents suggested that women are not well represented on either local authority/council or village level development committee; with only 5% and 14% of respondents confirming that women are represented on these bodies. The majority of those respondents (58%) stating that there is a mandatory requirement or quote for women and a third stating the women

were elected, a small proportion of respondents (9%) were unsure of the basis of women's membership of these bodies.

287. As noted in Section 5, the KIIs with the LWU indicated that women's participation in decision-making and local development and planning could be improved, the view of LWU is that it should be a standing member of development committees, and needs to be better funded to organize workshops and training courses in local decision making.

288. In respect of training, information and workshops being provided to villages, the households participating in the survey recorded that there had not been any training or awareness raising sessions on a range of topics such as micro-credit, savings and household budgeting, employment/work skills training, general health, nutrition and hygiene, environmental awareness, water supply and sanitation, family and reproductive health, or STIs and HIV awareness and prevention. This means there is a lot of scope for provision of training and awareness raising under the Project and this is incorporated into the gender action plan (GAP).

6.5. Access to Infrastructure and Services and Willingness to Pay

289. With the exception of access to a private well, in terms of connections to water supply (including hot water systems) and sanitation, female households are not as well covered as male headed households (Table 6.5.1).

Table 6.5.1 – Access and Connection to Utilities by Sex of Household Head

Village	Connections/access to services and utilities (%)							
	Electricity	Municipal water supply	Private well	Hot water system	Flush/pour toilet	Sanitation	Telephone	Regular solid waste collection
Female	100	56.1	42.4	68.1	98.5	69.7	22.7	84.8
Male	100	76.1	23.9	81.6	97.0	81.3	22.4	85.1
Total	100	69.5	30.0	69.5	97.5	77.5	22.5	85.0

Source: PSA household survey (September/October 2011)

290. Similar proportions of households headed by men and women qualified for a free or subsidized connection to the municipal water supply (24%), but a larger proportion of households headed by men paid the connection fee in installments (56% compared with 41%).

291. Responsibility for the disposal of the waste is divided between household members; plastic bottles and cans is the waste that accounts for the largest proportion of disposal by both males and females in a household (56%) followed by paper and cardboard which is disposed of by both males and females in a quarter of households. Males by themselves are responsible for the disposal of waste for between 7% and 55% of households, with stones and soil being disposed of by men in 55% of households. Females by themselves are responsible for the disposal of waste in between 29% and 60% of households (Table 6.5.2). In households headed by men (72% - 79%) the proportion of males and females together disposing of waste is higher than for households headed by women (47% to 53%), in households headed by women the disposal of waste is the responsibility of females.

Table 6.5.2 – Responsibility for Organizing Waste Disposal

Waste stream	Who arranges disposal in HH (%)		
	Both	Female	Male

Plastic bottles/cans	72.0	27.0	1.0
Paper/cardboard	70.5	28.0	1.5
Soil/stones	70.5	23.0	6.5
Food/garden cuttings	64.0	35.5	0.5

Source: PSA household survey (September/October 2011)

292. Over half 28% of households stated they sell waste for recycling on a regular basis; in 26% of households headed by women and 29% of households headed by men. In 42% of households the regular sale of waste for recycling is undertaken by both males and females, in 51% of households it is undertaken by a female by herself and in 6% of households by a male by himself.

293. Some 58% of households headed by women compared with 70% of households headed by men stated they were covered by waste collection services. Some households chose not to use the service, even though it was available in their village; reasons given for households not using the municipal solid waste collection service were varied; 6% of households headed by women and 13% of households headed by men said it was because the service was not regular enough or that the service only collected some waste and they still had to dispose of other waste themselves (8% and 10%). A large proportion of households headed by women (21%) compared with household headed by men stated they did not use the service because they disposed of their household rubbish in other ways (mostly by burning it).

294. A large proportion of households considered that it is reasonable for the government to request contributions (either in cash or in-kind) in order to provide community infrastructure and services; 92% of households headed by women and 98% of households headed by men.

295. As noted in Section 4, WTP varies depending on the service/utility and there is a higher WTP for improvements to roads and schools than for other services (including water supply, sanitation and markets). Overall WTP is higher in households headed by men (50%) compared with households headed by women (34%), with a range from 2% to 52% for female headed households and from 3% to 68% for male headed households depending on the infrastructure or service.

296. Households are not WTP more than 25% than they currently pay, and most are either not WTP or only WTP the same as they currently pay regardless of whether the service is improved (Table 6.5.3). Few households (less than 3%) were WTP for improved water supply, markets or health centers and these have been excluded from the table below.

Table 6.5.3 – Willingness to Pay for Improved Services by Sex of Household Head

Infrastructure/service	Sex of head of household	Willingness to pay (%)		
		Not WTP	No more than currently pay	Up to 25% more than currently pay
Roads	Female	21.5	76.9	1.5
	Male	15.0	82.1	2.9
Sanitation	Female	95.4	4.6	0.0
	Male	84.3	14.9	0.7
Solid waste management	Female	77.3	19.2	3.5
	Male	56.0	41.8	2.2
School	Female	69.7	28.8	1.5
	Male	44.8	52.2	3.0
Overall	Female	66.0	32.4	1.6
	Male	50.0	47.8	2.2

Source: PSA household survey (September/October 2011)

6.6. Gender Impacts

297. Improving and expanding coverage of urban infrastructure and services will provide a range of benefits. The conclusions of the assessments and consultations are that while there will be benefits at both community and household level, women will gain more benefit than men in a range of ways and also that some of the negative impacts could disproportionately affect women and therefore these are to be addressed through measures included in the GAP.

Urban Road Improvements

298. The urban road improvement subprojects will also benefit women at an individual and household level. As noted above trading and street vending is one of women's primary sources of incomes, improving roads will improve access and mobility and generally make women's travel more convenient and comfortable.

299. Women are heavily invested in small shops and kiosks along the roads, it was mentioned in FGDs that traffic congestion makes customer access difficult and dangerous and effects income. In tandem with the WWTP subproject (discussed below) the drainage improvements afforded under this subproject will improve women's lives by reducing the need to care for people suffering from WBIs, reducing flooding of houses and gardens in low-lying areas and improving the environment (covered drains) and reducing women's exposure to illness from sitting at their stalls constructed over the currently open drains and which convey wastewater and storm-water. Improving drainage (and reducing risk of flooding) can benefit women through avoiding the clean-up post-flood (which can be arduous work and take them away from other productive activities) and reducing exposure to WBIs reduces the need to care for sick household members.

300. The RP for the urban roads improvement subproject indicates that some 211 households will be affected (including 512 males and 561 females) and that 22% of affected households (AHs) are headed by women (ranging from 19% of AHs along Kaysone Road to 27% of AHs along Santiphap Road). Of the AHs 39 households (18% of all AHs) are identified as being vulnerable; 15 of which are households headed by women. The effects of IR on women and female headed households and mitigations required are discussed in the RP prepared for the project.

Solid Waste Management

301. Solid waste contains human and animal excrement as well as hazardous chemical pollutants and sharps; all of which facilitate disease and injury, especially among children, rag pickers, and employees in the waste management sector.

302. Studies have shown that a high proportion of workers who handle refuse and of individuals who live near or on disposal sites are infected with gastrointestinal parasites, worms, and related organisms. Contamination of this kind is likely at all points where waste is handled. Although it is certain that vector insects and rodents can transmit various pathogenic agents (dysentery, typhoid fever, and salmonellosis). Improving waste collection services (coverage and frequency) and its disposal by upgrading the existing dump into a sanitary landfill will improve public health and environmental conditions.

303. Women and children will benefit in terms of more hygienic surroundings, because they are vulnerable to diseases associated with poor environmental conditions. As the SWM subproject includes an awareness raising aimed at increasing awareness among the communities about the importance of health and hygiene, women, and particularly poor women, will benefit from a cleaner and healthier environment.

304. Women do not always have equal input into the allocation of family finances. For example, although a woman might be willing to spend scarce household resources on waste disposal, the head of household or her spouse may not agree. Further, household responsibilities relating to waste and waste disposal i.e. given women's primary responsibility for a number of domestic duties, women and men may view domestic waste and its disposal differently. The survey analysis showed that women are largely responsible for waste disposal and this leads to differing views and priorities related to waste disposal, and given these differences, women and men set different public health priorities and have different environmental standards. As demonstrated in Section 6.3, participation in community decision-making, including about waste disposal, is low and men have more access to institutions that set priorities and make decisions regarding municipal infrastructure. Community consultations processes often fail to take gender inequalities into consideration and thus neglect women's preferences. Women noted in the FGDs that they were excluded from the processes of identifying problems for solid waste and other problems.

305. Men and women differ in their attitudes towards public health and community cleanliness, and have markedly different preferences for how to address public health and environmental problems. These differences, at the most local level, affect the type of services women and men would like to see developed in their communities, how much they are willing to pay for these services, and who is responsible for finding the money to pay from within their part of the family budget. Such differences may also carry through to preferences for policies, technologies, or approaches which affect decisions made.

306. Solid waste management has evolved into an organized albeit informal, system of collection, trade and recycling. There is a marked division of labour in the various tasks between women and men. The survey showed that in male headed households both women and men are involved in waste disposal and recycling, in female headed households it was more often the responsibility of women; but that across the board male headed households earned more income from waste recycling.

307. There are also women involved in waste picking as their households' primary source of income. Operators of the upgraded MRF will be encouraged to formalize the employment of some of the waste pickers, and waste pickers will not be excluded from the landfill in order that their livelihoods are not further marginalized.

Wastewater Treatment and Sanitation Improvements

308. Households will gain from improved wastewater treatment and sanitation, women will benefit in a number of other direct and indirect ways as limited access to water and sanitation facilities pose health risks for women and girls. It has been shown that women have primary domestic responsibilities including spending time caring for sick family members as result of contracting some form of WBI from exposure to unsanitary wastewater (open drains and channels). Improving drainage which will reduce flooding will create benefits for the household by reducing physical damage and exposure to WBIs from over-flow of drains which often carry run-off and wastewater. Particularly for poor women, the provision of sewerage and safe sanitation will bring direct benefits of improved individual and family health. This is likely to decrease their household and care burdens and allow more time and energy for other activities.

309. Cleaning drains, which can also be a major source of WBIs, particularly where sewerage and waste disposal facilities are not available leaving drainage water heavily polluted was identified in some FGDs. Again, health benefits for the whole household would ensue from improved drainage and removal of waste. However, it was seen to have additional benefits for women, again in terms of reduced burden of care associated with preventable incidences of WBIs. Children are also likely to benefit because they tend to play in drains and are not conscious of the possibility of disease, personal hygiene, and are more vulnerable to WBIs than adults.

Consultation and Participation

310. Women have been engaged in the preparation of the SLEDPs through FGDs and KIIs, as well as in the FGDs undertaken for the preparation of the PSAs and the GAP. The Project's CPP provides avenues for women's ongoing engagement during further design and implementation.

Gender Risks

311. It should be noted that while the subprojects themselves are relatively small-scale and will involve small labour-force for limited periods of time and the impacts usually associated with large construction workforces being resident (in often remote areas) for long periods will not occur. For example the largest workforce for subprojects in Kaysone Phomvihane will be for the urban roads subproject (approximately 525 people for up to two years), of which most will come from the town itself. Therefore the risk of spread of communicable diseases especially HIV and sexually transmitted infections (STIs) is low, however in the context of the project overall in terms of corridor development and improving connectivity and mobility across country and city borders, there is a risk of both spread of communicable diseases and potential for human trafficking.¹⁴ The economically vulnerable are most at risk from social exploitation (trafficking) and health vulnerabilities (spread of HIV and STIs).

312. There is a well-established connection between infrastructure, mobility and spread of HIV and trafficking. The RRP prepared for the Second GMS Communicable Diseases Control Project (CDCP-2) noted that gender is a significant variable for understanding the spread of communicable diseases, as well as designing and delivering appropriate prevention and control. Women and girls have specific health needs and men and women may also have different vulnerability to infectious diseases depending on levels of exposure and access to health care and information (prevention and treatment etc).

313. The CDCP-2, a major program being implemented over five years, includes three outputs; (i) enhanced regional communicable disease control systems; (ii) improved communicable disease control along borders and economic corridors (working with Provincial Committee for Control of AIDS (PCCA) and Department of Health (PDH) as well as at district levels); and (iii) integrated project management. While the CDCP-2 is not being implemented in Svannakhet, the GAP

¹⁴ Details on rates of HIV and STIs as well as data on trafficking are provided in Section 7.

prepared for CTDTP will leverage off the broader initiatives and measures being implemented under CDCP-2 such as use of materials and models for training and awareness raising and use of peer educators etc and will provide targeted awareness and prevention for the communities in the immediate subproject areas and the construction workforces.

6.7. Gender Action Plan

6.7.1 Rationale for the GAP

314. The main issues raised by women in the consultations include; (i) inadequate urban infrastructure and services which hampers both trading opportunities and ability to improve wellbeing of the household; (ii) low awareness about important issues such HIV and STIs, trafficking and public and environmental health; (iii) lack of access to key decision-making channels in respect of identifying infrastructure needs and planning; (iv) unemployment and lack of training; (v) lack of access to micro-finance or credit facilities; and (vi) specific issues for women from poor households including lack of skills and inability to provide for basic needs on a regular basis.

315. To address these concerns and issues, the gender strategy for the project includes:

- Institutional strengthening for implementing structures of the CTDTP (e.g. project management unit (PMU), project implementation unit (PIU), resettlement committees, village development committees etc) and to increase the participation of women in the planning, design and implementation of urban infrastructure and ensure that provision of services are responsive to women's needs by increasing awareness of gender issues, to improve staff of PIU and PMU in respect of gender issues and urban development (e.g. targets for training, insertion of gender awareness training for all staff) and to integrate gender targets and sex-disaggregated monitoring and evaluation tools in development plans and programs implemented by the EA in the urban development sector;
- Empowerment for women in urban community development (gender awareness raising programs) and provision of vocational training programs (including basic skills such as literacy and numeracy as required), financial management, aimed at improving women's skills and marketability in the urban job market, understanding how to access existing micro-credit funds and facilities, and providing access to short-term employment through inclusion of a project assurance specifying a 50% target for participation of women and the poor in construction related employment;
- Increasing the participation by, and awareness of, women in communicable disease and trafficking control and prevention in subproject areas; and
- Ensuring that information, education and communication (IEC) programs implemented under the CTDTP properly target women and girls.

6.7.2 Purpose and Components of the GAP

316. The purpose of the GAP is to ensure that women will benefit in a number of direct and indirect ways from the proposed urban improvements, ensure there are suitable avenues available for their participation, and to propose measures to maximize their participation, in local-level decision-making, increasing awareness about a range of issues as raised by women during FGDs and KIs, and to put in place measures to mitigate negative impacts and reduce risks associated with the subprojects and the Project's overall aim of transforming transport corridors into economic corridors (such as the risk of both spread of communicable diseases and potential for human trafficking).

317. Another purpose of the GAP is also to contribute to the social, economic and political empowerment for women through participation in gender awareness raising (EA/IA level and community level) and skills training (community level). This is a longer-term objective aimed at improved understanding of gender issues in urban infrastructure provision, increasing participation of women in urban community development and raising their skill levels.

318. The responses from women in terms of the types of measures that could be implemented through measures included in the project to address the issues that most concern them and support their development included training (including understanding how best to access existing micro-credit programs and facilities) and skills development, and increasing participation in community development and decision-making. Responses to these needs make up the core of the GAP.

319. Awareness raising which can be undertaken through campaigns or programs covering issues such as sanitation, health and hygiene, waste minimization and recycling linked with the improved solid waste management and wastewater treatment (sanitation) subprojects, and HIV, STIs, and trafficking awareness and prevention campaigns. Another key area of the GAP is providing avenues for increasing participation of women in urban development (capacity building of female staff in EAs and IA, and awareness raising for all staff of importance of gender issues in urban development) and increasing representation of women in village level committees and decision-making at local level.

320. A theme of the GAP is to encourage, and provide support for, involvement of LWU members who have extensive knowledge of issues that confront women and can contribute to issues and policies during preparation of socio-economic development plans and become partners in aspects of implementation of the GAP. The LWU will continue to be involved in Project development and implementation to facilitate ongoing consultations, assist with implementation of the GAP and RPs, and to provide information to poor households headed by women on how to best avail of the measures and assistance available.

321. The GAP also includes the road safety campaign which will be aimed at school children and communities within the vicinity of the urban roads in the three towns.

322. Under the GAP, priority selection of female headed households and poor women and men for participation in training and awareness opportunities will be given.

GAP Component 1: Institutional Strengthening for Gender and Development

323. Provision of awareness and training for EA and IA (including PMU and PIU) staff in gender and development issues, training and capacity building for the EA and IA in terms of gender mainstreaming and sensitization to gender issues, preparation of a gender strategy for each IA as part of overall development plan/strategy in the urban infrastructure sector, and support for implementation of the Project's GAP. The main activities of this component of the GAP include:

- Understanding of MPWT's approved Gender Strategy into sectoral planning, activities and annual works plan and project preparation and providing the context for inclusion of gender issues and needs in urban development;

- Promotion of increased gender and development (GAD) awareness, through training workshops and seminars, and staff guidelines to support the above, and the project's policy on GAD as set out in this GAP; and
- Provision of assistance in the areas of policy support, capacity building, GAD awareness, and formulation and implementation of policies and programs directed at improving the status of women within the sector as well as the management and activities of EA, IA, PMU and PIU.

324. A consultant with requisite GAD and training experience will be engaged under the GAP to review MPWT LWU Unit's existing training programs, this will be in the framework of current work being undertaken by national level LWU to produce gender mainstreaming training materials for ministerial level policy and planning. The LWU Unit will approve the training materials to be delivered.

325. The training modules will include presentation of key elements of Government's commitment to CEDAW and Millennium Development Goals; basic knowledge on principles of gender equity and mainstreaming, awareness raising about gender issues (including gender stereotyping and why gender sensitivity is needed in public sector work delivery and the need to collect and analyse gender dis-aggregated data and information etc); a basic understanding of the MPWT's Gender Strategy; problems being faced in central and/or provincial agencies in terms of mainstreaming gender into sectoral development policies, plans, and activities, and how to overcome gender inequities; gender issues in respect of urban development; and how to include and address gender issues in day to day activities.

326. Gender sensitization and mainstreaming workshops (5 x 1 day sessions to minimize work disruption) for 30 EA and IA staff including Division Heads, female representatives from divisions, and LWU Unit. The workshops will aim to increase gender awareness, issues of gender mainstreaming, MPWT's Gender Strategy, and gender inclusiveness in project development and implementation as outlined above.

327. Participatory techniques will be applied during the training process in order to develop the interaction and understanding between participants. The participatory techniques include brainstorming at the plenary session, smaller group discussions, gender role play, case study analysis, and a final discussion led by the participants as to how they can include GAD issues and sensitivities in their public service work.

328. The assumptions used in the cost estimate for this component include:

- Gender sensitization and awareness training (including MPWT's Gender Strategy) for both male and female staff in EA, IA, PMU and PIU (to facilitate addressing the existing problems with urban development not being responsive to, or addressing the needs of, women) this will be delivered by either LWU or a suitable NGO with assistance from MPWT's LWU Unit and the gender specialists included in the project management support consultant (PMSC). Assumes 30 participants from PMU/PIU and IA attending 5 one-day courses over a year; and
- On-the-job training provided by the PMSC's gender specialist for PMU and PIU is a cost to the PMSC TA and is not included in the GAP cost estimate.

GAP Component 2: Empowerment for Women in Urban Community Development and Skills Training

329. The community-based training will provide women with skills in public speaking, participation in community infrastructure prioritization and decision-making, leadership skills and gender equity awareness, all of which will support the entrée of women into leadership and management roles in the village development committees (VDCs).

330. The livelihoods and employment support component will include confidence building and empowerment through assistance in preparation of CVs and packaging of skills with a view to legitimizing existing skills-sets (garment, hospitality, service etc) through issuance of certificates for x number of years work experience. This will allow the women themselves and future potential employers to recognize the skills and work experience of women.

331. It is clear that women must also be provided with training in a number of vocational areas if they are to increase their skill levels and be perceived as capable of management, as such community development and the VDCs can be seen as a microcosm of the local society as a whole, if women can be empowered in community-level development it will likely lead to broader empowerment in wider society.

332. The analysis clearly identified unemployment and lack of skills as an issue and development challenge for both men and women. The vocational training modules will therefore be available to both men and women, with priority given to participants from female headed households and poor households. The training will be provided to 15 men and 15 women from each of the villages within the Project Area.

333. The assumptions used in the cost estimate for this component include:

- Provincial and district LWU and/or a suitable NGO if required will run the courses with the assistance of a village LWU representative from each participating village select the women who will participate;
- The empowerment and gender awareness classes will be held for 15 women per village reaching a total of 315 women and will be provided over the period of one year (12 x 2-day sessions);
- Support for issuance of accreditation (acknowledging work experience) certificates by LWU in collaboration with local government and employers (Chamber of Commerce) recognizing gained skills and existing work experience of women, this in conjunction with assisting them in preparing CVs, and provision of information on existing micro-credit programs and facilities and understanding how to access existing micro-credit facilities, will prepare them for applying for jobs or for more entrepreneurial women to establish small businesses of their own;
- Vocational and skills training courses will be run by trainers (six per course) appropriate for each of the vocational training programs identified through consultations and delivered by an NGO and/or LWU. The five vocational programs include training in areas in which people have expressed an interest or already have limited capabilities in and can contribute to the construction sector and growing tourism and hospitality sector in the towns including; boutique/spa/massage (6 months); cooking (2 months); tailoring/weaving (2 months); masonry/carpentry (6 months); and electrical and/or plumbing (6 months) courses which will be offered to 126 people per program (including traders, vendors and waste pickers even if they are not resident in villages). The courses will cover literacy and numeracy as required. Up to 15 female and 15 male participants from each of the 21 villages will be selected. Priority will be given to including participants from female headed households and poor households;

- An allowance will be provided to the participants in the awareness raising courses and vocational training programs to ensure they are not constrained in attending the classes due to the need to work for the required days. The allowance is \$2.50/day which is half of the average wage for unskilled/daily labor of US\$5/day. The monthly allowance is US\$55 (for a 22 day month); and
- All women participating in the courses will also be encouraged to participate in the five-day training in financial management;

334. The survey data indicated that 1% of women compared with 12% of men are engaged in construction work as a paid activity. A project assurance requires preference be given to local people in terms of employment opportunities during the construction phase, in turn women (including priority for female headed households) and the poor will be given priority when hiring from the local labor pool with a target of 50% participation; this target will significantly increase the involvement of women in the construction sector if they choose to be involved.

GAP Component 3: Communicable Disease and Trafficking Awareness

335. Potential effects on construction workers and communities will be mitigated in through implementation of an awareness and prevention campaign, as well as an item to be included in the loan covenant (specific assurance) which requires the implementation of the STIs and HIV/AIDS and trafficking prevention and awareness campaigns for construction workers and communities.

336. A review of impacts associated with improvements along the Northern Economic Corridor (NEC) and measures implemented to mitigate them noted several points: (i) programs should have a time-frame that extends at least two years beyond construction in order to mitigate construction phase impacts and impacts that arise post-construction by providing access to information to “new comers” into the project area i.e. the people drawn to the area to seek benefits from the improvements; (ii) also post-construction there is a high likelihood that any commercial sex networks that have established in response to a construction workforce will not disappear but will integrate with other avenues for sex work such as hotels, bars, and casinos; and (iii) knowledge about HIV and its prevention alone is insufficient, casual and formal sex-workers need to be supported to practice safe sexual behaviour (such as consistent condom use) by village and traditional leaders and bar/hotel owners.¹⁵

337. All activities will be carried out by an NGO with a track record and experience in the sector which will be engaged to prepare and support implementation of the program with partners in the Provincial Committee for Control of AIDS/HIV (PCCA) and PDH. Trained district health workers will help to spread the information to village level through workshops on HIV/AIDS/STD prevention, reproductive health, and trafficking. Through these sessions, participants will be encouraged to raise ideas, and identify solutions to community health problems. Drawings, posters, leaflets and videos will be used during the sessions.

338. The NGO will be required to discuss the approaches to be adopted with Ministry of Health (MOH), Centre for HIV/AIDS and STI (CHAS) and the PDH to afford compatibility and linkages, and avoid duplication with other recently implemented programs.¹⁶

339. There is also a Joint MOH United Nations (UN) Programme with additional funding from LUX targeting particular districts including Sepon and Phine in Savannakhet for antenatal care (including HIV testing) with the objective of reducing mother to child transmission of HIV and provision of support for children with HIV. The main idea of the programme is to ‘fill the gaps’ of the

¹⁵ ADB d; Build it and They Will Come: Lessons from the Northern Economic Corridor Mitigating HIV and Other Diseases, Manila, Philippines (2009)

¹⁶ A number of NGOs have been implementing HIV/AIDS and STIs and trafficking awareness and prevention programs including; WVI, Acting for Women in Distressing Circumstances; Family Health International; Barnet Institute, and Norwegian Church Aid.

Government's implementation of the Maternal, Neonatal and Child Health Core Package. (MNCHCP) Consultations with UN reveal that only 30% of pregnant women seek antenatal care and the HIV testing is voluntary, the program is still "missing" a large number of women. In 2011 planning workshops took place at district level to analyze district FYDPs and compare to the MOH strategy, based on requirements to meet MOH's strategy districts were requested to make plans for 2012-2013 to which UN agencies could offer support where funding is needed.

340. In addition to mitigating the risk for subproject communities and workers, the program proposed under CTDp will support the existing programs and will provide resources to reach those falling through the gaps where existing programs are targeting particular groups/populations i.e. the proposed program will target younger, unmarried and working women as the implementation of the MNCHCP is aimed at married women and there is still a lack of services for youth and younger working women. The program includes the following components:

341. Community awareness and prevention and promotion of behavior change – based on an outreach model and the materials and methods developed by existing HIV/AIDS awareness and prevention programs an NGO will be engaged to work with the PCCA and PDH and undertake a series of Knowledge Attitudes, Perceptions and Behavior (KAPB) surveys of community and at risk groups within the project area to define the needs in terms of awareness and prevention messaging and targeting the core audiences, and develop and implement a community awareness and prevention campaign.

342. HIV/AIDS in the workplace training – a series of workshops and seminars will be provided for contractors and their construction force, these can be facilitated by an approved service provider using well developed materials for this purpose (UNAIDS or ILO or similar) and will include; basic information on HIV/AIDS – history, terminology, statistical data (regional and national), legal background (law etc); paths of transmission, high risk groups (how and why); prevention measures; HIV in the workplace; stigma and discrimination issues; In addition to the training the costs of this component of the program include STIs testing for the construction workforce twice per year.

343. Information will be disseminated through posters, pamphlets, focus groups, and events with the assistance of two peer educators selected per village (at least one of whom will be female). The basis of this component is adapted from the CDCP-2 (i) by selecting and recruiting two peer educators (at least of whom will be female) from each village who will be the interface between village health, DCCAs and NGO for program delivery, they will receive training-of-trainers (TOT) skills through workshops; (ii) sensitization sessions and materials for secondary schools in the project impact area; and (iii) delivery of awareness and prevention messaging and training in the 21 villages.¹⁷ This component should be implemented by an NGO with experience in HIV/AIDS/STIs awareness and prevention in Lao PDR and specifically who has experience working in Savannakhet as networks and contacts with PCCA and DCCAs will be already established.

344. Anti-trafficking - during the construction phase of the project there are many opportunities to target those most vulnerable to trafficking with legitimate job opportunities in construction work. To address the trafficking risk, awareness and prevention must target two key; (i) overt trafficking (i.e. organized trafficking rings operating in the GMS), and (ii) the more covert forms of trafficking (internal recruitment) whereby friends of family in effect can act as recruiters by encouraging women and girls to work in casinos, river/road-side bars and beer gardens etc and engage in commercial sex.

345. Linking with the work of Ministry of Labour and Social Welfare and WVI, the project's program will provide awareness about human trafficking (especially dealing with migrant issues) through working with relevant government agencies, local institutes, and NGOs. Workshops will be

¹⁷ The awareness and prevention campaign components have been estimated on the basis of participation of 21 villages in total; 13 villages in Kaysone Phomvihane, five villages in Phine and three villages in Dansavanh, being the villages where subprojects are located.

organized for relevant participants to discuss activities to combat HIV/AIDS and human trafficking, and establish a coordination network on human trafficking prevention.

GAP Component 4: Sanitation, Health, Hygiene and Environmental Awareness

346. Linked to the WWTP/sanitation and solid waste subprojects, this component will be implemented in Kaysone Phomvihane only where these subprojects are being implemented. The community based environmental and hygiene awareness program of the GAP will directly address women's needs and health risks. Women noted in the FGDs they required information about avoiding WBIs, sanitation and health etc and the awareness raising training will link with the upgrading of sanitation and wastewater treatment facilities. The training and awareness program will cover:

- Awareness raising about waste reduction/minimization, segregation and recycling;
- Knowledge on environmental sanitation, including: toilet renovation, types of sanitary toilets, treatment methods, sanitation, public health education and promotion;
- Knowledge on drinking water safety, including: present water supply conditions, types of drinking water, water source protection, sanitation criteria, sterilization and treatment of drinking water, water and environmental sanitation, WBI prevention, emergency treatment during water pollution, wastewater as a source of water for non-potable uses (recycling);
- Knowledge on public sanitation and health including women and infants' health;
- Provision of posters and booklets to households to educate people on various aspects of hygiene and public health (such as washing hands before preparing food and going to the toilet, not wiping dishes with towels or cloths after they have been used for cleaning floors etc, sanitary food preparation and storage, sanitary livestock (including domestic pets) enclosures, passing such information on to children etc); and
- Village health and hygiene promotion through a "healthy/green village" competition.

347. During the KILs with the LWU it was made clear that the LWU has experience in implementation of such programs through association with Swiss Red Cross and SNV. In particular SNV has been supporting the SSHA project for capacity development in water, sanitation and hygiene in the three CTDP towns.

348. This component of the GAP includes priority for the poor and existing waste pickers to be employed at the upgraded MRF in Kaysone Phomvihane.

GAP Component 5: Road Safety Campaign

349. A remaining negative social impact that requires mitigation and can be incorporated into the GAP, is the potential for increased accidents as a result of the road improvement subprojects. Especially in the women's FGDs the issues of road safety and potential for increased accidents after the roads have been improved was raised. In some of the men's FGDs the poor driving of truck and bus drivers was noted, along with the need for stronger enforcement of traffic regulations by the police. Each of the participating towns in Lao PDR propose road improvement subprojects, the campaign will target the 21 villages that make up the project area.

350. This component of the GAP will be implemented by a suitable NGO in coordination with the PMU, PMSC and working along-side the Police. The component will aim to increase awareness about potential for traffic accidents by targeting school children and bus and truck drivers. Workshops and training sessions will be held in the villages and awareness raising will be undertaken in secondary schools.

6.7.3 Institutional Arrangements for Implementation of the GAP

351. The EA and IA will establish a PMU and PIU respectively to assist with the implementation, coordination and management of the subprojects. The PMU will include a full-time gender/social specialist who will assist the PIU in implementing the GAP. The PMSC will be engaged under the Project to support and assist the PMU and PIU and will include national and international gender specialists for 12 months and three months respectively.

352. The IA/PIU, with assistance from PMSC, will be responsible for implementing the GAP. As part of the Project's institutional strengthening and capacity building component, training in gender awareness (GAP component 1) for EA, IA, PMU and PIU will be from MPWT's LWU Unit, the PMSC gender specialists and partners such as NGOs and local levels of LWU.

353. The gender specialists on the PMSC will support the PIU in coordinating and managing the delivery of the overall GAP program including coordinating the activities of NGOs recruited to deliver specific components of the GAP.

354. The gender specialists, if required can provide support to PMU to select and recruit suitable agencies and experts to prepare and deliver the training and information for the GAP (including the adaptation of existing training materials as required). The following points are noted:

- The NGOs will prepare a proposal describing their relevant experience, detailing how they intend to implement the programme (with an implementation schedule), and budget (in line with cost estimate provided in Table 6.7.1) in response to TORs for those services;
- In respect of implementation, NGOs with proven experience in awareness raising and IEC, training-of-trainers, workshop organization and delivery, and community participation will be required. The NGOs will have, and provide evidence of, a track record in providing similar services to that required by the GAP.

355. The cost estimate for the GAP is summarized in the table below (including a 10% contingency for each component). Appendix 1 provides a detailed breakdown of each component. The GAP matrix is provided as Table 6.7.2.

Table 6.7.1 – Cost Estimate of the GAP

GAP Component	Estimate (US\$)
Institutional strengthening for gender and development	61,606
Empowerment for women in community urban development & skills training	279,411
HIV/AIDS/STIs and Trafficking Awareness & Prevention	223,091
Sanitation, Health, Hygiene (SHH) incl. SWM & Environment Awareness	58,410
Road safety campaign	62,260
Total GAP estimate	684,778

6.8. Monitoring of the GAP

356. Internal monitoring will be undertaken by the IA and PMSC's gender specialists every two months and findings consolidated in project's quarterly progress reports. An independent monitoring organization (IMO) will be engaged to undertake external monitoring and will also report directly to the EA and ADB on a quarterly basis.

357. The monitoring indicators are set out outlined in Table 6.8.1.

Table 6.8.1 – GAP Monitoring Indicators

Issue/Impact/Benefit	Indicator	Measurement Means ¹⁸
Employment during construction	<ul style="list-style-type: none"> • Contribution to poverty reduction in Project area; • Levels of compliance with Labour Laws; • Legal wages paid to workers; • No use of trafficked or child labor; • Employment targets set for women, the poor and vulnerable groups (50%); • Priority employment for people from directly affected households (losing land/assets); • No differential wages paid between men and women for work of equal value; • A specific clause placed in bidding documents that compliance will be strictly monitored 	<ul style="list-style-type: none"> • Numbers of Lao viz-a-viz foreign workers engaged • No. of vulnerable, poor and women employed • Construction contract wage bills • Project reports esp. to identify if targets are being met • Independent monitoring reports
Public participation, consultation & awareness	<ul style="list-style-type: none"> • No. of vulnerable or otherwise marginalized groups and women participating in meetings and project activities during Project • Public awareness programs to the communities living in project area • Public information dissemination, consultation and communication procedures conform to the process established in the CPP • The disclosure of the updated and detailed plans, appropriateness of the disclosure methods • Effectiveness of the grievance mechanism, types of grievances, if and how resolved, and satisfaction of people with the process. 	<ul style="list-style-type: none"> • No. of consultations undertaken at different project phases as noted in Project reports • Availability of information (leaflets, posters etc) • Independent monitoring report
Gender issues; Increased role of women in income generating activities and inclusion of women on local decision making bodies	<ul style="list-style-type: none"> • Institutional and staffing mechanisms; • Collection and dis-aggregation of gender sensitive data; • Women's representation and participation in the detailed planning and implementation process; • Increased skills and access to training; • Increased employment and hours in productive activities; • Improved health and well-being • Gender inclusiveness (access by both men and women to all programs and measures under the Project) rather than segregating health awareness for women and technical training for men for e.g, although the programs themselves might implemented be in gender separated groups; • Delivery of land titles (for any replacement land) in the names of both husband and wife • Whether compensation has been delivered to both husband and wife, together; • No. of measures or activities to address gender issues incorporated into Project planning process • No. of women reached by GAPP viz-a-viz anticipated number • No. of women on development committees • No. of LWU members engaged in GAP implementation 	<ul style="list-style-type: none"> • Consultations with developer and ESMU staff • Baseline and survey data • Consultations • Delivery of programs and participants (disaggregated) • Health and education statistics • Project reports esp. to identify if targets are being met • Independent monitoring reports • Monitoring of GAP components • Monitoring of implementation of RP measures • No. of women included on various committees (viz-a-viz men) and meeting of 40% representation target

Issue/Impact/Benefit	Indicator	Measurement Means
Cases of STIs and HIV/AIDS	<ul style="list-style-type: none"> • Implementation of awareness and prevention program • No. of people reached by program (by sex and economic group) • Support to existing programs and initiatives • Numbers and rates of cases of STIs and HIV • Improvements in data collection and monitoring • Improvements in access to materials and information 	<ul style="list-style-type: none"> • Statistics from PCCA, municipal health authority and PDH; • Baseline and survey data

¹⁸ All baseline and follow-up data for monitoring to be disaggregated by sex, ethnicity and income group (at least poor and non-poor).

Vulnerable beneficiaries; exclusion of poor and marginalized groups	<ul style="list-style-type: none"> Poor and marginalized households affected by project (compared with proportion of poor) Assessment of the adequacy of the measures taken to address concerns; Effectiveness of communication methods used; and Assessment of the appropriateness and effectiveness of various entitlements, programs and activities and methods of delivery for various vulnerable households and groups, and the need for adjustment or additional measures 	<ul style="list-style-type: none"> Baseline and survey data Consultations Progress reports Independent monitoring reports
Transparency	<ul style="list-style-type: none"> How information is distributed and to whom, in order to make sure that beneficiaries have the proper information and access to knowledge Functioning of EA and IA and how information is properly recorded and made available 	<ul style="list-style-type: none"> Consultations (FGDs and KIIs); Stakeholders participating in planning; Progress reports; Analysis of monitoring reports

Table 6.7.2 – GAP Matrix

Project output (as per DMF)	Gender actions/targets	Responsibility	Timeline		Budget
			Start	End	
Strategic Local Economic Development Plan (SLEDP) adopted and implemented	<ul style="list-style-type: none"> Increased women's participation in preparation of development plans including CTD's SLEDPs – target of 40% of committee members should be female; Separate consultation and meetings with women in the community about the subproject design and scope are conducted; Poor women and female headed households are directly consulted during planning and implementation 	EA/IA, PPTA Team, ADB, provincial & district stakeholders EA/IA, PMU, PMSC, LWU	Adopted 2012	Updated as required 2018	Incl. in other project budget lines
	<ul style="list-style-type: none"> GAP component 1 – institutional strengthening for gender and development – gender awareness and sensitization training for 30 EA/IA staff; gender awareness training for managers and staff to increase sensitivity to different needs of women and men; identification of gender issues and solutions into socio-economic development plans, frameworks and development strategies; identification of women's specific needs in provision of urban infrastructure and services; training sessions run at least twice per year for EAs and IA; male and female managers and staff to attend; ensure capacity building training is equally accessible and available to male and female staff; gender issues reflected and mainstreamed in planning documents including socio-economic development plans and master plans; ensure balanced representation of both genders in all consultations (at least 50% of participants in consultation are women; and priority recruitment of women to ensure targets are met 	EA, IA, PMU, PIU, LWU and NGO, PMSC	Start of project implementation phase (2012)	2013, on-the-job Training (PMSC) continues to end of project	GAP component 1 US\$61,606
Priority urban infrastructure investments implemented	<ul style="list-style-type: none"> Ensure women capture benefits of subprojects and that negative impacts are mitigated; GAP component 2 – empowerment for women in urban community development 	PMU, PIU, PMSC, NGO, LWU, female	2012	2013	GAP component 2 US\$279,411

	<p>and skills training – community-based training for skills in public speaking, participation in community infrastructure prioritization and decision-making, leadership skills and gender equity awareness, all of which will support the entrée of women into leadership and management roles in the village development committees (VDCs) through empowerment and gender awareness classes will be held for 15 women per village reaching a total of 315 women and will be provided over the period of one year (12 x 2-day sessions); livelihoods and employment support including confidence building through assistance in preparation of CVs and packaging of skills to legitimize existing skill-sets (garment, hospitality, service etc) through issuance of certificates; vocational and skills training courses in five programs in areas in which women have expressed an interest or already have limited capabilities in and can contribute to the construction sector and growing tourism and hospitality sector in the towns; boutique/spa/massage; cooking; masonry/carpentry; weaving/tailoring; and electrical/plumbing courses which will be offered to 126 people (15 female and 15 male per village) per program (including traders, vendors and waste pickers even if they are not resident in villages) with priority to FHHs and poor HHs; the courses will cover literacy and numeracy as required.</p>	beneficiaries			
Priority urban infrastructure investments implemented...continued	<ul style="list-style-type: none"> • Construction phase employment - target 50% participation rate of women and poor in construction labor; (i) contracts for civil works will specify (ii) recruitment of local labor and (iii) promote equal opportunities for women and men based on labor requirements, skills and qualifications (where required); (iv) conducive work environments for participation of women; (v) equal amount of payment received by male and female workers who undertake work of equal value; (vi) women will receive their wages paid to them directly; (vii) contractor records to be sex disaggregated for monitoring purposes) 	Contractors, EA/IA, PMSC, beneficiaries	2012	Up to 24 months	Incl. in project assurance no additional cost

Project output (as per DMF)	Gender actions/targets	Responsibility	Timeline		Budget
			Start	End	
Priority urban infrastructure investments implemented...continued	<ul style="list-style-type: none"> GAP component 3 – HIV and trafficking awareness and prevention – (i) separate awareness training provided for men and women on health and safety and HIV/STIs during workforce mobilization; (ii) contractor awareness training implemented; (iii) community-based awareness, control and prevention activities and campaigns are gender sensitive; (iv) training of women as health volunteers; (v) increased participation of females in awareness, control and prevention activities and increased knowledge about reproductive health; (vi) all contractor staff (incl. local labor) to participate in awareness and prevention training (vii) ensure IEC materials and campaigns target both women/girls and men/boys; (viii) at least 50% of health volunteers are women and at least 50% of community participants in IEC campaigns are female; (ix) women and men in high risk groups targeted; (xi) contractor to provide for inductions and follow-up training for new staff; (xii) community-based awareness – incl. sessions for village leaders and police on overt and covert recruitment practices and tactics; (xiii) increased participation of women and girls in trafficking awareness and prevention activities; (xiv) campaigns extend at least 1 year beyond construction to new cohorts of women and migrants; (xv) target vulnerable females and youth (male and female) employed in potentially high-risk occupations (seasonal migrants, workers in bars, restaurants, casinos etc) 	Contractors, EA, PMU, PMSC, LWU, PCCA/DCCA, NGO, IA/PIU, beneficiary communities	Prior to start of construction phase	Up to 36 months after start (1 year after construction completed)	GAP component 3 US\$223,091
Priority urban infrastructure investments implemented...continued	<ul style="list-style-type: none"> GAP component 4 – sanitation, health and hygiene program – (i) baseline survey of knowledge and behaviour; (ii) engage village “health and sanitation promoters” to receive TOT (two per); (iii) training of village level LWU as facilitators for IEC implementation; (iv) formation of groups in village for community mobilization activities associated with sanitation, solid waste management and recycling; (iv) all survey data to be disaggregated by sex for assessment and monitoring purposes; (v) at least one of the two health and sanitation promoters to be female; (vi) both women and men engaged in public relations/community 	EA, PMU, PMSC, LWU, NGO, IA/PIU, beneficiary communities	Prior to start of construction phase (2012)	2013	<p>GAP component 4 US\$58,410</p> <p>GAP component 5 US\$62,260</p>

	<p>information roles; (vii) at least 40% of group members to women, women to be leaders or deputy leaders of 50% of groups; (viii) ensure IEC materials and campaigns target both women/girls and men/boys; and (ix) priority for employment of FHH, poor HHs and waste pickers at MRF.</p> <ul style="list-style-type: none"> • GAP component 5 – road safety campaign – target girls as well as boys in school awareness campaigns 				
Institutional capacities strengthened	<ul style="list-style-type: none"> • Recruitment of staff for EA PMU and IA/ PIU; • Inclusion of national and international gender specialists on PMSC team; • Capacity building of national consultants and EA and IA staff (incl. PMU and PIU) • GAP component 1 – empowerment for women in urban community development gender awareness and sensitization training for EA/IA staff etc (as described for Project Output 1); all training and capacity building programs are assessed for gender perspective and content prior to delivery; specific gender trainings are developed and provided for relevant consultants in all levels (e.g., provincial, districts); male and female managers and staff to attend (can be linked with component 1); ensure capacity building training is equally accessible and available to male and female staff (all training records to be disaggregated by sex for monitoring purposes) 	EA, IA, PMU, PIU, LWU and NGO, PMSC	Start of project implementation phase (2012)	Training 2013, on-the-job continues to end of project	
TOTAL GAP ESTIMATE					US\$684,778

Abbreviations: PPTA – Project Preparatory Technical Assistance; ADB – Asian Development Bank; EA – Executing Agency; IA – Implementing Agency; PMU – Project Management Unit (of EA); PIU – Project Management Unit (of IA); PMSC – Project Management & Supervision Consultant; IMO - Independent Monitoring Organization; VDC – Village Development Committees; LWU – Lao Women's Union; FHH – female headed household

7. Poverty and Social Assessment

7.1. Contribution to Poverty Reduction

358. Reduction of poverty is closely related to economic growth, and the key objectives of the EWEC¹⁹ directly support efforts to reduce poverty through activities and initiatives that will:

- Reduce poverty, support development of rural and border areas, increase earnings of low-income groups, and provide employment;
- Strengthen economic cooperation and facilitate trade, investment, and development; and
- Lower transport costs and make the movement of goods and passengers more efficient.

359. The development strategy for the EWEC includes pro-poor policies and seeks to increase mobility along the EWEC and across borders to enable rural communities that include the poor, ethnic groups, and women, gain much needed access to markets, jobs and social services. The stated overall objective is to enhance social welfare to ameliorate existing poverty and inequality and possible negative impacts for the development of the EWEC.²⁰ The action plan identifies interventions including; (i) integrating HIV/AIDS programs into transport projects along the EWEC; (ii) strengthening the response capabilities to epidemics and disease outbreaks that could have a major impact on the sub-region's health, and improving the coverage of prevention and care of communicable diseases in vulnerable populations; (iii) improving environmental health and reducing the burden of communicable diseases; (iv) improving the management of HIV resources and programs; and, (v) targeting HIV preventions associated with the implementation of infrastructure projects (refer to Section 7.4).

360. The CTDP can contribute to ongoing efforts to further reduce poverty. Through both infrastructure investment (improving access to key economic and social services and facilities and improving living conditions and health) and its economic investments which focus on private sector led development and improvements to the business environment. Support for development of commercial activities through micro-enterprises and SMEs and PPP²¹ will sustain efforts to develop competitive and commercialized activities along the EWEC.

361. Through improving environmental and economic infrastructure in the participating towns, CTDP will also contribute to promotion of tourism and development of the expanding tourism sector along the EWEC which has the potential to contribute to local poverty reduction. Under the EWEC Tourism Corridor Zone Initiatives, targeted marketing and development approaches are being used to reach market segments interested in particular pro-poor tourism products.

¹⁹ ADB c; op cit. The EWEC emphasis on economic growth and development of the corridor as a strategy to reduce poverty is founded on the large amount of available evidence that sustained economic growth rates successfully lower poverty levels.

²⁰ ADB c; op cit

²¹ The CTDP is funding a parallel TA for PPP pilot projects and development. There are also a number of other projects and programs targeting SME development, value-chain opportunities and development, cross border service centre development and trade facilitation agreements which the CTDP will support.

362. JICA has been financing a tourism industry development project in Savannakhet which will produce; (i) a tourism promotion plan; (ii) development of a collaboration system; (iii) development of a tourism information system; and, (iv) development of a mechanism to prevent negative environmental and social impacts. The outcomes will include information maps/brochures for five circuits, thematic brochures (handicrafts and food), road signage, website development, community-based activities, surveys and information gathering, and training.

363. A challenge for tourism development in Savannakhet is developing attractions that will induce tourist traffic to stop or make the province a destination point, as well as providing adequate accommodation and services along the Savannakhet section of the EWECE.

364. The overall GMS tourism strategy includes 13 priority zones one of which is the EWECE. The activities and development foci for EWECE tourism include aspects that can be supported by CTDP such as:

- Addressing tourism infrastructure development requirements;
- Identifying and supporting potential entry points for SMEs and PPP in overland tours, war memorial tourism and ecotourism;
- Supporting specific projects in the sector such as GMS Sustainable Tourism Development Project²² which contribute to corridor development through developing tourism opportunities along the route and adjacent areas, and improving capacity of SMEs and public sector and private tourism organizations.

365. Improving urban infrastructure, services and environmental quality through roads and drainage, wastewater treatment, solid waste management and Mekong River embankment protection investments will help Kaysone Phomvihane become a more attractive and healthy town and therefore provide support to the growing tourism industry.

366. A distributional analysis and calculation of the poverty impact ratio are provided in the economic and financial analysis.

367. Localized poverty reduction will also be afforded through employment of the poor during the construction stage of the project, as discussed below.

7.2. Job Creation and Wage Generation

368. There will be short-term job creation as a result of the CTDP, and while this does not address longer-term job security it will provide immediate incomes to households who are in need. The measures incorporated in the GAP (vocational training and skills building) are designed to address issues raised in consultations regarding lack of skills and the poorly skilled who dominate the unemployed sector.

369. The construction phase of the Project will represent opportunities for income generation through (i) employment (wages); and (ii) provision of food, clothing, and other items to the workers.

370. The construction phase of the Project has the potential to have a major impact on incomes and the households of poor and low income/marginal households immediately within the subproject areas, especially if the requirements of the Lao Labour Law are complied with.

²² A \$10 million program in Lao PDR (Northern Economic Corridor and EWECE and includes Savannakhet) to develop demonstration subprojects that will improve urban environment and natural tourism sites, promote participation of the poor and ethnic groups in tourism, and protect vulnerable people from potential negative impacts. <http://pid.adb.org:8040/pid/LoanView.htm?projNo=38015&seqNo=01&typeCd=3>

371. In Article 25, the Lao Labour Law (2006 which revised Decree No. 64, 21/3/2005) states that while a project developer has the right to accept the employees it requires, the developer "...shall give priority to Lao citizens, especially persons who are targets under poverty alleviation programs." In cases where it is absolutely necessary, foreign employees may be engaged by the developer, but they must be a select group and be approved by the labour administration agency. In any case in respect of engaging foreigners, the Labour Law specifies that for physical work (unskilled labour) it is not permitted to accept more than 10% of the number of total employees, while for skilled work it is not permitted to accept more than 20% of the number of total employees.

372. Therefore to comply with the Labour Law 90% of unskilled labour and 80% of skilled labour should be provided by Lao nationals. To realise the maximum benefits of job creation during the construction period it will be important that the Labour Law is complied with. From this, a proportion of jobs can be set aside for women and people from poor households (and preference should also be given to directly impacted households, especially those that have been required to relocate as a result of the project). Information from the project engineers is as follows:

Table 7.2.1 – Base Assumptions about Construction Workforce

Subproject	Approx. no. of workers	% unskilled	Construction period (months)	Type of contract (LCB or ICB)	No. of unskilled workers
Improvement of drainage, installation of WWTP	150	50	24	ICB	60
Improvement of urban roads and drainage	250	30	24	ICB	125
Establishment of sanitary landfill and MRF	50	40	20	ICB	20
Mekong River embankment protection	75	50	20	ICB	38

Source: PPTA Team (December 2011)

373. According to the Labour Law, the Project should give priority to Lao nationals. Different employment arrangements can be negotiated during project approval discussions, and depending on the needs of the proponent/developer foreign workers can make up a larger proportion of the workforce. In order to determine the potential benefits for Lao, from the construction phase, three different scenarios have been used; adoption of the Labour Law and 90% of unskilled workforce being Lao; 65% of unskilled workforce being Lao; and, 50% of unskilled workforce being Lao. This presents a clear picture of the opportunity cost of not maximising Lao labour during construction of the subprojects.

374. As the type of contract is assumed to be international competitive bidding (ICB) it is also assumed that a camp will be established for the workers that are foreign or sourced from outside of the town.

375. Table 7.2.2 shows that if the Labour Law is adopted and Lao fill 90% of the unskilled labour on the project, there is the potential for a total employment of 2180 Lao with 4,815 person-months work over the construction period. With Lao people filling only two-thirds of unskilled labour, total employment reduces to 158 and 3,478 person-months employment and eventually decreases to 121 jobs and 2,425 person-months if only half of the unskilled workforce is Lao.

Table 5.1.3 – Job Creation Potential of Subproject Construction

Employment scenario	WWTP		Urban roads		Landfill + MRF		Mekong River protection		Total	
	No. of people employed	No. of person months	No. of people employed	No. of person months	No. of people employed	No. of person months	No. of people employed	No. of person months	No. of people employed	No. of person months
90%	54	1080	113	2700	18	360	34	675	218	4815
65%	39	780	81	1950	13	260	24	488	158	3478
50%	30	600	63	1250	10	200	19	375	121	2425

Source: Consultant estimates

376. Based on data gathered during consultations and KIIs, the minimum wage for unskilled laborers in the town is US\$5/day or US\$110/month. Using the monthly rate, the above workforce participation scenarios convert into total wages earned by Lao of US\$529,650 with 90% of workforce being Lao reducing to a wage-bill of US\$266,750 with half of the workforce being Lao, as shown in Table 7.2.3.

Table 7.2.3 – Direct Wage Generation Potential of Subproject Construction

Employment scenario	Total wages (US\$)				
	WWTP	Urban roads	Landfill and MRF	Mekong Riverbank	Total
90%	118,800	297,000	39,600	74,250	529,650
65%	85,800	214,500	28,600	53,625	382,525
50%	66,000	137,500	22,000	41,250	266,750

Source: Consultant estimates

377. The Project can support poverty reduction efforts if a target for provision of labor by the poor is set for the Project. Assuming a set aside of 50% of the unskilled Lao workforce is for the poor and women, using the workforce scenarios above the total employment for the poor and women will range from 61 to 109 people providing between 1213 person-months work and 2,408 person-months work.

378. This will provide the poor and women with earning potential in the order of US\$264,825 at the 90% scenario reducing to US\$133,375 at the 50% scenario over the two-year construction period. This has the potential to make a substantial contribution to local poverty reduction. An additional benefit of construction employment is the training that comes with it. Each worker will be able to seek other construction work based on the experience and skills acquired on the Project, another reason that these benefits should be retained in the province, if not the immediate Project Area, rather than an influx of foreign workers who will not leave any built capacity behind after Project completion.

379. In addition to the direct unskilled construction jobs, a substantial number of unskilled jobs will be created by the industries that supply the construction and building materials for the works. Quantities of sand, rock, brick, gravel, ballast, cement and specialized plant will be required to upgrade the roads and drainage, construct the WWTPs, install the new pipes and expand the existing sewerage network and construct the riverbank protection structures. This will be incremental for companies that are currently operating in Kaysone Phomvihane and

wider province as well other parts of the country, providing a large number of unskilled jobs that are required to produce these construction materials.

380. There will also be the spin-off to the local economy from the presence of the workers in the area. Provision of food and other necessities to the construction work crews is another job-creating benefit in the project area. Construction benefits include both income generated during construction and assets that remain after the construction work is completed. The provincial and district governments can authorize female-headed and poor households to organize food services to the construction camps. This ensures that a measure of this impact will be both pro-women and pro-poor. The local LWU can help to organize local women to carry out this function. In addition, the demand creates an opportunity for the LWU which has become increasingly involved in assisting women in starting small businesses through advising and small loan funds to capture both job and business opportunities for women.

381. It is difficult to quantify the amount spent by workers that will spin-off to the local economy, as skilled workers may have a larger proportion of their wages that are expendable (due to higher wages) than others, while some workers may actually spend very little in the project area. A conservative estimate can be derived by using the wages potentially earned by Lao workers only.

382. Using the consumption data available from LECS-4 in terms of monthly expenditure on food, clothing and footwear, and alcohol and tobacco, over the construction period Lao workers²³ could potentially generate in the order of US\$80,507) under the 90% workforce scenario and US\$43,747 under the 50% workforce scenario, spent on food and drinks, entertainment and other expenses in local and small businesses operating in the town (Table 7.2.3).

Table 7.2.3 - Potential Spin-off to Local Economy

% of wages expended	Total Lao wages spent under different workforce scenarios (US\$)		
	90%	65%	50%
Wages spent on food (6.6%) ²⁴	34,957	25,247	17,606
Wages spent on clothing & footwear (2.4%)	12,712	9,181	6,402
Wages spent on alcohol & tobacco (2.5%)	13,241	9,563	9,870
Wages spent on entertainment (3.7%)	19,597	14,153	9,870
Total wages spent in project area	80,507	58,144	43,747

Source: Consultant estimates

383. As the above estimates show, the Project's direct and indirect unskilled jobs will provide poor households with the means to escape poverty, even if only as a short-term measure the employment can provide a building block in terms of (i) worker expertise; (ii) opportunity to accumulate some capital or repay debt; and, (iii) ability to save earnings to utilize for investments in activities and/or inputs that could yield increased incomes from their existing livelihoods.

²³ The potential economic spin-off from foreign workers is not included in this analysis because experience on a number of other construction projects involving, for example Chinese contractors, indicates that they import a very large proportion of food (including rice), clothing, alcohol and cigarettes.

²⁴ The proportion of monthly expenditure on food, as identified in LECS-4, is 26.4%, as it is likely that some meals will be provided by the project developer with the camps, and those people who live in a reasonable proximity to the camps will go home for meals, a quarter of this figure has been used in the above calculation.

7.3. Health Impacts

384. The town has poor sewerage/drainage networks with inadequate coverage, and the limited flood control structures installed along Mekong River do not function and in a number of cases cause water to back up and flood adjacent fields. Inadequate drainage and sewerage results in poor management of storm and surface run-off water, and flooding of houses in lower-lying areas during the rainy season. As there is no separation of wastewater and storm-water, households suffer inundation with sewage laden flood water. Problems include undersized drains, clogged waterways, deteriorating networks, and lack of integration of subdivision or local drainage with main drainage channels. In general, the impact of flooding is more serious on the poor who are forced to live on marginal land. Exposure to open sewerage channels and flooding causes not only damage to buildings and infrastructure, but also health problems, including water-borne stomach ailments and eye, skin, and foot diseases.

385. It was noted in the FGDs, as well as in the survey, that members of the households in the project area do experience WBIs with the household survey recording up to 12 households with nine members (four children and five adults) being sick in the past year with some form of WBI contracted from open sewers and/or blocked drains. The children that suffered from WBIs were ill for seven days while the adults were ill for up to 11 days. The average cost of treatment being 100,000 kip.

386. Data from the town health authority shows that between 2006 and 2011 between 1% and 24% of the population have suffered from some form of WBI that was serious enough to seek treatment or medical consultation and that overall 40% of the population has suffered a WBI (Table 7.3.1). The table does not include people suffering from WBIs who do not seek medical attention and therefore is a conservative estimate of those who fall ill.

Table 7.3.1 – Reported Cases of WBIs in Kaysone Phomvihane

Year	Type of WBI by number of cases							Total cases of WBIs
	Diarrhea	Hepatitis A	Typhoid	Trachoma	Skin infection	Eye infection	Ear infection	
2006	1542	68	38	14	1258	5541	860	9321
2007	1135	54	28	4	1004	5433	822	8480
2008	2047	61	22	3	1025	4410	750	8318
2009	1465	20	37	4	793	4258	861	7438
2010	1110	22	61	3	550	3585	703	6034
2011	1290	65	76	3	604	4154	571	6763
Total	8589	290	262	31	5234	27381	4567	46354
% of pop	7.4	0.3	0.2	0.03	4.5	23.7	4.0	40.2

Source: Kaysone Phomvihane Health Authority (2011)

387. Not all WBIs can be attributed to inadequate wastewater treatment and poor sewerage as WBIs are also caused by poor potable water supply. For the purposes of estimating savings on treatment and days lost from school and work, the following assumptions have been made:

- The total number of cases reported in 2011 are taken as the base year for the assessment;
- A third of reported cases are attributable to inadequate wastewater treatment and poor sewerage;

- Some 55% of the cases are adults and 45% of cases are children;
- The cost of treatment is 100,000 kip;
- The average period of illness is 7 days for children and 11 days for adults;
- The proportion of cases that are experienced by the poor is 23% (equivalent to the proportion of poor determined in the household survey); and
- Missed wages as a result of sick days are calculated using the minimum wage of US\$5/day).

Table 7.3.2 – Estimated Cases, Sick Days and Cost of Treatment

Estimated people suffering WBIs	No. of cases	No. of sick days	Cost of treatment (000 kip)
Children	3043	21303	304,335
Adults	3720	40916	371,965
Total	6763	62220	676,300
Poor	1555	14311	155,549

Source: Consultant's Estimates

388. Improving the sewerage and installing the WWTPs has the potential to prevent in the order of 6,763 cases of WBIs a year and saving household expenditure on treatment in the order of 676 million kip per year (US\$84,538). Poor households could save in the order of 155 million kip per year (US\$19,444).

389. The subproject also has the potential to reduce missed school for children in the order of 21,303 days per year, and for adults avoid missed work days in the order of 40,916 days (14,311 days for poor adults). This amounts to saving some US\$204,581 in missed wages and US\$47,054 in missed wages for the poor.

390. Annualized total savings (treatment for children and adults and missed wages) to potentially be afforded to households are in the order of US\$289,118 and US\$66,497 for the poor.

7.4. Risk of Spread of Communicable Diseases

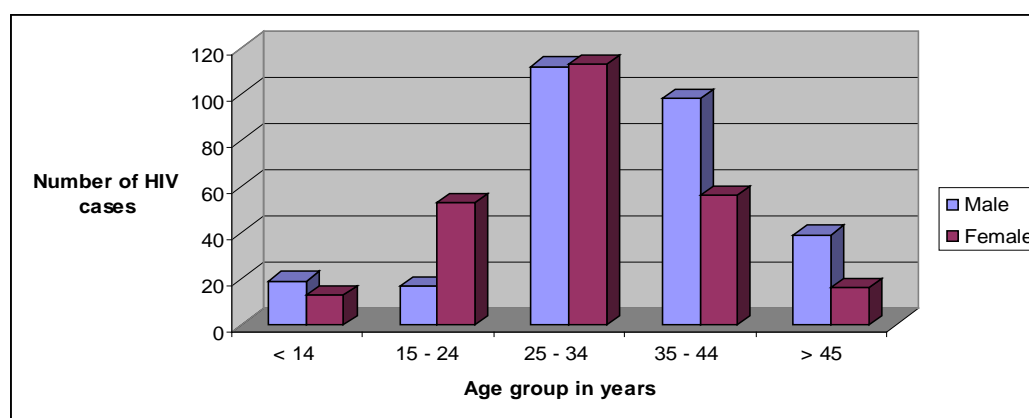
7.4.1 Existing Situation

391. The first HIV case in Lao PDR was reported in 1990, and the first case of AIDS was identified in 1992. The cumulative number of HIV cases to end of 2009 was 3,659 including 2376 people being AIDS symptomatic and 1038 people who have died from HIV/AIDS associated illness.

392. The overall profile of detected HIV cases between 1990 and 2009 cases is 56% male. Of the cases detected in 2009 some 53% are male, however in two age cohorts there are greater numbers of women than men detected with HIV, most significantly in the 15 – 24 year group in which women account for three-quarters of people infected by HIV, and in the 25 – 34 year group in which women account for just over half of the 225 cases recorded in that age cohort. In terms of transmission, 87% is through heterosexual sex, 5% is through mother to

child transmission, and the remaining proportion is made up of transmission through homosexual sex, infected blood products, and needle-sharing.²⁵

Graph 3 – Number of HIV Cases by Gender and Age



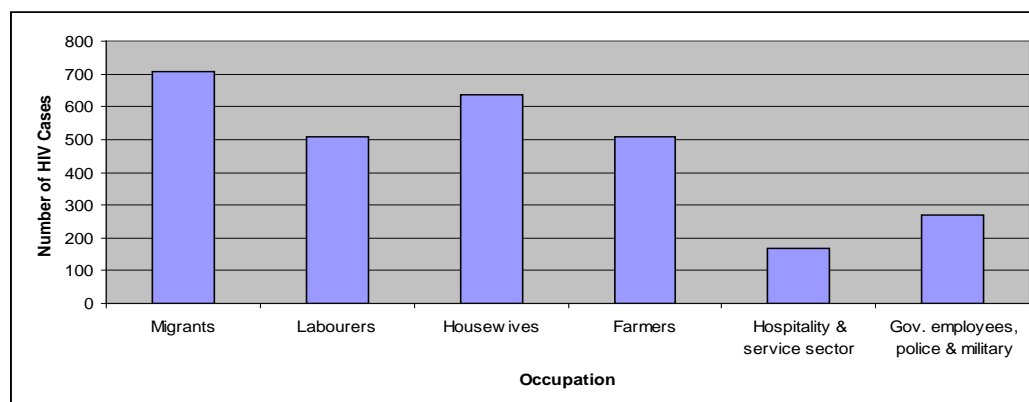
Source: Centre for HIV/AIDS/STI (March 2010)

393. While several reports note that HIV/AIDS prevalence is still low in Lao PDR, between 2003 (170 cases) and 2009 (536 cases) about one hundred new cases have been detected each year. There are also concerns that actual numbers of people with HIV could be higher than those reported as there are several risk factors that make Lao PDR particularly vulnerable including: (i) increasing travel and migration; (ii) increase in the use of illicit drugs, especially an increasing problem with intravenous/injecting drug use (IDU); (iii) inadequate access to effective STI treatment; (iv) low awareness of the causes and prevention of HIV/AIDS; and (v) Lao PDR shares borders with Cambodia, Burma, Thailand, Viet Nam, and Yunnan province of the PRC, where HIV/AIDS prevalence rates are relatively high.²⁶

394. The LWU also adds to these factors that women are considered to be particularly vulnerable to HIV infection, and that low levels of awareness on HIV/AIDS and gender, limited access to information, particularly women/housewives whose husbands have multiple partners, low socio-economic status of women, and the high levels of poverty and disparity status of women, increase the risk of HIV/AIDS among Lao women and compound the risk of the epidemics spreading. As shown in Graph 4 the number of HIV cases detected amongst housewives is 635, (accounting for 17% of total HIV cases). The groups considered most at risk of contracting HIV/AIDS include housewives (as noted above), mobile groups such as truck drivers, migrant workers (19%), farmers and labourers (together accounting for 28% of total HIV cases), police/military government officials (7%), workers in the hospitality and service sector (5%), business people who travel, sex workers, and adolescents.

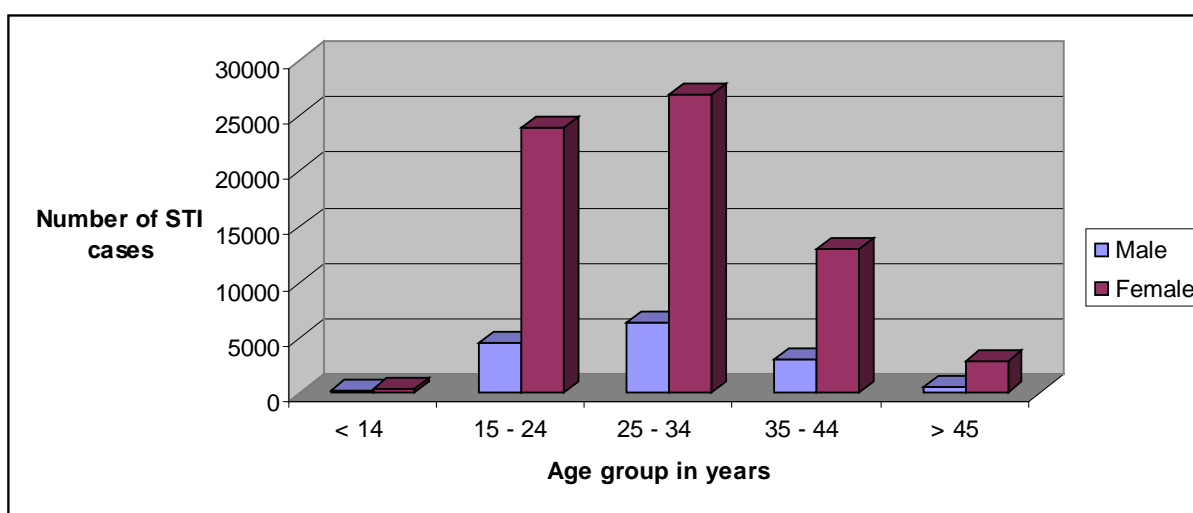
²⁵ Centre for HIV/AIDS/STI; HIV and AIDS Situation in Lao PDR, Vientiane (March 2010)

²⁶ Lao Women's Union; Strategy and Action Plan on HIV/AIDS/STIs 2007-2010, Vientiane (June 2006)

Graph 4 - HIV Cases by Occupation

395. Of the total number of HIV cases, 1431 (39%) are recorded in Savannakhet and 1186 (32%) are recorded in Vientiane Capital.

396. In respect of STIs, Graph 5 shows that there are significantly greater numbers of women with STIs than men, in each age cohort. Looking at the breakdown of STIs by age group 40% of women and 43% of men with STI symptoms are in the 25 - 34 age group, and more than a third of women (36%) and 31% of men with STIs are aged between 15 and 24 years old.

Graph 5 – Number of Cases of STI by Gender and Age

Source: Centre for HIV/AIDS/STI (March 2010)

397. Very high STI rates suggest the presence of significant amounts of high risk behavior in the country. Between 2005 and 2009, 82,304 cases of STI have been recorded, with 82% of all STI symptoms being found amongst women. Coupled with the presence of neighbours with significant HIV epidemics, this also suggests the Lao population may be increasingly vulnerable to HIV/AIDS. Similar to the situation with recorded HIV cases, Vientiane Capital (13,708 cases) and Savannakhet (a total of 8881 cases or 11% of the total number of cases of HIV reported nationally) record the highest number of cases, with Champasak ranking third. In Savannakhet 92% of the cases of STIs are recorded in women.

7.4.2 Project Associated Risks

398. In Kaysone Phomvihane, the four subprojects are expected to require a total workforce of 575 of which between 40% and 50% will be unskilled and could be sourced from the pool of unemployed people in the town. The estimated construction period is between 20 months and 24 months for each subproject. The contracts for the construction of the subprojects will most likely be international competitive bidding awards, and therefore there is high likelihood of a large international contractor bringing in foreign labor if it is considered cheaper than Lao labor.

399. The risk of spread of STIs and HIV associated with the Project is a factor of three things; (i) the existing prevalence and transmission rates; (ii) the knowledge of the community about pathways of transmission and methods of prevention; and, (iii) the aspects of the Project that could exacerbate the existing situation (i.e. presence of a construction workforce mainly comprised of outsiders or foreigners in an where people have low existing knowledge and awareness of the risk or ways to prevent its transmission).

400. The risks are associated with the economic corridor itself and secondly to the specific subprojects. The corridor development strategy which encourages improved accessibility and mobility along the corridor and tourism promotion are inevitably triggers for commercial activities that cater to a highly mobile population such as truck drivers, etc and include construction workers (people from outside the town), traders, people from households who travel for marketing or selling, seasonal migrants moving between Thailand, Savannkahet and Viet Nam, and CSWs. There are no data available on the number of CSWs operating in the town, but CSWs are associated with casinos and larger hotels.

401. The vulnerability of migrant workers is compounded by their mobility and their social separation from the local community which in turn prevents them from accessing social and health care services. For example, migrant laborers often do not want to use, or are not permitted to use health clinics due to registration formalities, local medical systems, and thus STIs and possibly HIV amongst migrant workers remains unchecked. The risk of HIV/AIDS infection is therefore increased.

402. Mitigating the risk of spread of STIs and HIV during the construction phase of the project will include implementation of a small and targeted STIs and HIV awareness and prevention program (through implementation of the GAP) for the beneficiary communities and construction workforce. The Project's awareness and prevention measures should link in with existing initiatives wherever possible. Additional measures included in the GAP cover:

- Inclusion of standard FIDIC HIV and STI prevention clauses in the contract documents;
- IEC materials obtained from PCCA and adapted for the target audience, if no suitable materials exist, the NGO engaged to provide the training will produce suitable materials;
- Provision in construction contracts requiring the construction contractor to ensure the construction workforce attend STI and HIV/AIDS prevention workshops provided through an approved service provider. The workshops will be delivered to the workforce prior to commencement of works, the workshops will be run two times per year to ensure that new recruits have the benefit of the training;
- Provision of condoms at the construction camp;

- The Contractor providing adequate health care facilities including an HIV/AIDS and STIs education post and first aid facilities within each construction camp; and
- Village-based community awareness raising about transmission of STIs and HIV, reproductive health, safe sex, and anti-trafficking. The program will be implemented in the subproject villages in each town. The community based program will be based on training-of-trainers (TOT) provided by a suitable NGO or PCCA to the village health volunteers or facilitators who will then pass on the information through workshops undertaken in small groups in the villages.

7.5. Risk of Human Trafficking

7.5.1 Existing Situation and Contribution to the Risk

403. Approximately one-third of global trafficking in women and children occurs in or from GMS. A significant proportion of this trafficking affects the GMS countries of Thailand, Cambodia, Viet Nam, Myanmar and Lao PDR.

404. The Lao PDR is predominantly a source country for trafficking to Thailand but it also acts as a transit point for trafficking from the PRC and Viet Nam to Thailand and onwards. There are also reports of trafficking to the PRC for forced marriage, sexual exploitation, and labor.²⁷

405. The Ministry of Labour and Social Welfare undertook a qualitative research project, with support from UNICEF, in order to better understand the underlying causes of child trafficking, to identify those most at risk and to uncover the dynamics of the trafficking process. The analysis was based primarily on the recorded experiences of 253 trafficked victims and their families, and was the first national survey of its kind in Lao PDR.²⁸ From the findings of the study it is possible to build a profile of those most at risk of trafficking and target interventions accordingly. The overwhelming majority of trafficking victims surveyed (60%) are girls aged between 12-18 years of age and most victims (35%) end up in forced prostitution. Other forms of employment were domestic labour (32%), factory work (17%), and fishing boats (4%). Those that worked in agricultural labour tended not to be trafficked and exploited whilst those working in domestic household situations experienced some of the most extreme cases of abuse and mistreatment.²⁹

406. A disproportionate number of the trafficking victims are from ethnic groups other than Lao sub-group (i.e. other seven groups in the Lao-Tai language family). In order of frequency after Lao-Tai groups (62%), the Mon-Khmer show up most in trafficking reports. The provinces most affected by cross-border trafficking, in addition to Phongsali, are Luang Prabang, Luang Namtha, Oudomxay (for trafficking to the PRC), an Vientiane, Xayaboury, Khammuane, Savannakhet, Pakse (for trafficking to Thailand). Research in the northern economic corridor found that traffickers were often members of extended families, as well as local communities, with well-organized links on both sides of the border.³⁰

407. The U.S. State Department has developed a three tier rating system to show the ranking of countries in terms of compliance with a set of minimum standards for combating

²⁷ ADB (e); Combating Trafficking of Women and Children in South Asia (Appendix 3), Manila, Philippines (2003)

²⁸ UNICEF/Ministry of Labour & Social Welfare; Broken Promises, Shattered Dreams: A Profile of Child Trafficking in Lao PDR, Vientiane (2006)

²⁹ UNICEF/Ministry of Labour & Social Welfare; *ibid*

³⁰ ADB (d); *op cit*

human trafficking.³¹ Countries that participate must have credible reporting, in the vicinity of one hundred victims, that the country is either a country of origin, transit, or destination for human trafficking.³² Laos improved its ranking from Tier 3 (indicating that it was not making any significant efforts to comply) in 2006 to Tier 2 in 2007. A Tier 2 ranking means that while the Government does not fully comply with the minimum standards, it is making an effort to bring itself into compliance.

408. The *Combating Trafficking of Women and Children in South Asia* is a guide for integrating trafficking concerns into large projects which pose a risk, or increase the vulnerability of women and children to being trafficked.³³ The guide notes, among a number of things, that three aspects of social and gender assessment require addressing the trafficking issue: (i) identification of measures to adapt project design to improve the status of women and girls and, in so doing, build their resistance to the risk of being trafficked; (ii) considerations that may need to be built into projects to ensure that vulnerable groups can be protected from factors that cause and sustain their poverty – and their risks to being trafficked; and, (iii) identification of the ways to assess whether project impacts will increase vulnerability to being trafficked and identifying opportunities to prevent or minimize the risks.

409. As noted in Section 7.2, the construction phase will bring people into the surrounding area as labourers at the sites and others wishing to respond to the presence of a large workforce in small entrepreneurial ways.

410. This can create impacts on the communities through increased demand for service/sex workers (see also discussion on risk of spread of HIV/AIDS and STIs), increased demands on existing health services, disintegration of social networks, disruptions and involuntary relocation for some community members, all of which can contribute to, or increase vulnerability to being trafficked. The FGDs and household survey results show that there are people who migrate to Thailand and Malaysia for work, both legally and illegally who are vulnerable. Therefore, it has to be concluded that there are people in the town who are at risk from the possibility of being trafficked, as well as opportunities such as increased access, and large scale population movements associated with construction, that could be taken by traffickers to exploit the vulnerable.

411. It must also be stated, that during the construction period there will be opportunities to target those most vulnerable to trafficking with paid and regulated employment for up to two years. A preferential employment policy, targeting the poor, women, people from households affected by land acquisition will enhance the anti-trafficking elements to be incorporated into the Project through the GAP and RPs.

Mitigation Measures

412. The impacts that can be implemented to reduce the vulnerability of women (and children) to trafficking include:

- Ensuring no trafficked labor is engaged as part of the construction workforce or any ancillary employment (guards, cooks, cleaners etc);
- Ensuring legal wages are paid to construction and ancillary workers in line with Lao Labour Law and minimum wages set in accordance with the province;

³¹ The minimum standards include prohibition of trafficking, punishment for those who commit trafficking consistent with the gravity of the act, efforts to eliminate trafficking, monitoring of immigration and measures to protect those persons who have become victims of trafficking.

³² U.S. State Dept; Trafficking in Persons Report (2008)

³³ ADB (d); op cit

- Implementation of a preferential hiring policy by the developer that gives priority to the vulnerable, project-affected households, and local labour within the town and wider catchment;
- Conduct village education campaigns in collaboration with the Department of Labor and Social Affairs and NGOs working in the sector which include a trafficking awareness and prevention workshops for communities (aimed at women and children);
- The members of the construction workforce who do not live locally will be required to reside at the camp which should be located away from existing villages and at sufficient distance to discourage interaction with local people;
- The incorporation of awareness messages into Project components already addressing community impact issues, and codes of conduct for construction workers that raise concerns about service/sex workers and child prostitution can also be a means to address some trafficking issues; and
- Awareness messages for service/sex workers and construction workers can be combined with anti-trafficking and safe migration messages (as migrant workers are a high-risk group for HIV and STIs).

7.6. Social Safeguards

413. ADB has two safeguards covering social issues: involuntary resettlement and indigenous people.

7.6.1 Involuntary Resettlement

414. Involuntary resettlement (IR) impacts, in addition to physical displacement, include economic displacement which is defined as the loss of, or restrictions on access placed upon, any land or income generating assets (including communal resources or property). IR impacts will be created by three of the four subprojects in Kaysone Phomvihane and RPs have been prepared. A summary of impacts is given below.

415. The urban roads subproject will create impacts in nine villages, the total number of AHs is 213 (including two institutions). Excluding the institutions, the road upgrading subproject will directly affect 211 households (AHs), and 1,073 affected persons (APs) including 512 males and 561 females, some 22% of the AHs are headed by women. The wastewater treatment and drainage subproject, although affecting a relatively small number of AHs (39 in total), traverses three villages and affects 10 AHs in Houameuang (northern system), 20 AHs in Phonxai (central system) and 9 AHs in Saphantai (southern system). Three of the AHs are headed by women. The total number of APs is 161 (78 males and 83 females). The Mekong River embankment subproject is located in the village of Xaiyaphoum, the subproject will create IR impacts for 35 AHs, one of which is headed by a woman. The number of APs is 211 (92 males and 119 females). In total the three subprojects will affect 285 households and 1,445 people (682 males and 763 females).

416. In total there are 48 households (17%) that are considered vulnerable. Some 12% or 32 of the AHs fall below the official poverty line. Excluding those already included in the “poor”; (i) of the single female headed households there are eight in the 2nd income group (low income) and who have dependants; (ii) there are four household heads who are elderly and have little labor or means of support.; and (iii) four AHs recorded having members with a disability or long-term illness (including two females and four males). The urban roads

subproject includes 39 vulnerable AHs, the wastewater treatment subproject includes three and the Mekong River embankment subproject includes six vulnerable households.

7.6.2 IR Impacts of Urban Roads Improvement Subproject

417. With the exception of one small area of land on Santiphap Road (nearly 41 m²) the subproject includes works within the right-of-way as defined by the land titling program undertaken in the late 1990s. The works will create IR impacts on shops and kiosks that have been erected within the ROW. There are no houses affected by the works. Most of the structures affected are small shops or kiosks constructed from wood and corrugated iron and located immediately in front of the house or larger commercial establishment that is behind the ROW. Some AHs have also set up small shops (mostly noodle shops or small cafes) by constructing an awning out from their house or expanding the roof of their house. The works will affect a total of 179 structures belonging to 180 AHs, including 130 small shops or kiosks including awning/roof expansion structures (1,188 m²) that will require removal, and the walls (179 m) and fences (146 m) of 49 AHs are also affected.

418. There are trees located in the property front yard and verges that will require removal, and some 136 of the AHs will have their trees affected, with 234 trees requiring removal. The main types of trees to be affected include mango, banana, and pawpaw/papaya and decorative trees.

419. There will be livelihood impacts created by the subproject works with the removal of the shops and kiosks, in a number of cases it will not be possible for the shops/kiosk to be re-erected as the widening and works will utilize the area currently being used for the shop/kiosk. Of the shops and other businesses affected, 85 stated they are registered. In addition to the owner, 142 people work in the shops/businesses. These employees are entitled to compensation for lost wages for 1.5 months (the expected maximum length of construction work in any one location and for business to be re-built).

420. The shops/businesses operate 6-7 days per week. Registered businesses are entitled to compensation based on net monthly income for 1.5 months, as no information was provided during the IOL, this has been estimated using the same method as for non-registered businesses i.e. compensation based on value of minimum wage for 1.5 months.

7.6.3 IR Impacts of Wastewater Treatment Subproject

421. The land to be acquired for the subproject includes two sites of 2.7 ha for the northern and southern WWTPs and an area of 500 m² for the septic tanks and pond for the central system. The central system will require 100 m² of residential land to be acquired from each of five households adjacent to the stream. The sites proposed for northern and southern sites are within two large land-holdings that are used by members of the owners' families and others for gardening and growing vegetables (mostly lettuce and herbs and in the dry season and rice in the wet season).

422. There will be permanent impacts on 70 m² of small wooden stalls constructed over the drain opposite the Savanxai Market, these are being operated by five households. The impacts on 16 other stalls and kiosks constructed over the drains are temporary in that they will be removed during the works and replaced following completion of the works. These stalls are makeshift and include a table with an umbrella or shade blanket attached to poles and are often taken down each evening, they are easy to uplift and replace and are therefore not considered to be permanent effects.

423. In an area adjacent to Kilimang stream a small group of houses have constructed small buildings behind their houses on the bank of the stream. The ancillary houses structures

(three outdoor kitchens and one latrine) belonging to four households will be removed by the works required along one of the existing channels for the northern system. Some 42 trees will also be removed including banana, coconut and bamboo.

424. There will be livelihood impacts created by the subproject works with the removal of the stalls and kiosks. Of the stalls affected none are registered businesses and are operated by the owners themselves i.e. they do not employ additional people. The shops/businesses operate 6-7 days per week and will be compensated for income based on the average earnings/income for 1.5 months. The 21 stall owners are also entitled to livelihood restoration and transition support equivalent to the value of the poverty line (240,000 kip per AP per household) for the construction period (1.5 months). The 12 AHs growing vegetables on land they use but do not own for the two WWTP sites will be compensated at the value of loss of one season of crop based on the average reported annual income (two seasons of crop). In addition, at the southern WWTP site an area of 0.32 ha used for rice cultivation will be lost and is compensated based on the market value for rice pro-rated at yield (kg) per ha.

7.6.4 IR Impacts of Mekong River Embankment Subproject

425. There will be no land acquisition for this subproject. The land required for the subproject is located on the slope of the bank Mekong River and includes the footpath constructed as part of the ROW of the road running along the river. The subproject will effectively result in a net gain of land where the platform is built out over the Mekong River.

426. The works will require the stalls (evening restaurants and bars) to be removed for the period of construction. Many of the stalls that operate along the riverbank are tables and chairs with umbrellas (tent stalls) that are placed along the boardwalk each evening and stacked during the day. The works will also require the removal of seven more solid structures (constructed from wood and corrugated iron) totaling an area of 138 m². These will be rebuilt after completion of the works. The slope protection works will require the removal of riverbank gardens used for growing corn in the dry season when the river levels are low and areas of the bank are exposed.

427. These are “opportunity” gardens and while they are not authorized uses they are permitted on an informal basis. The gardens belonging to 12 AHs will be removed.

428. This subproject will create livelihood impacts on the evening restaurants with the removal of the stalls during the period of works (1.5 months) and the loss of the riverbank gardens. The businesses operate 7 days per week and will be compensated for loss of income based on the average earnings/income for 1.5 months (period of disruption).

429. The eight owners of the permanent structures are entitled to relocation allowance (for removal of the structure and effects) and livelihood restoration and transition support equivalent to the value of the poverty line (240,000 kip per AP per household) for the construction period (1.5 months). The 12 AHs growing corn on riverbank gardens will be compensated at the value of loss of one season of crop based on the higher of the reported seasonal income (the IOL recorded income of between 250,000 kip and 600,000 kip for the sale of corn).

7.6.5 Indigenous People

430. ADB's safeguard defines indigenous people (IP) as a distinct, vulnerable, social and cultural group who: (i) self-identify as members of a distinct indigenous cultural group and the recognition of this identity by others; (ii) have collective attachment to geographically distinct habitats or ancestral territories; (iii) have customary, cultural, social or political institutions that

are different from those of the dominant society and culture; and, (iv) have a distinct language, often different from the official language of the country or region.

431. The SIA shows that there are non-Lao people living in the three CTDP towns, as shown in the table below.

Table 1.2.2 – Non-Lao Ethnic Populations in Corridor Towns

Province	% of provincial population	Town	% of town population
Savannakhet	37.9	Kaysone Phomvihane	2.6
		Phine	64.2
		Dansavanh	74.3

Source: SLED: socio-economic profiles of towns (August 2011)

432. The household survey confirms that in Kaysone Phomvihane the majority of the beneficiaries are Lao with small numbers of Phoutai (1.5%) and other ethnic groups (recent Vietnamese and Chinese migrants) accounting for 0.5% of the sample. During the SIA meaningful consultation with non-Lao was undertaken through meetings and focus group discussions (FGDs) in the towns. The consultations undertaken indicate the following:

- The people see themselves first and foremost as Lao, they hold Lao citizenship and communicate through Lao language in different facets of society such as marketing, business activities, political activities, and participation in village/district administration;
- They have inter-married with other ethnic groups including Vietnamese;
- The different ethnic groups live together in mixed communities, there is a high level of social/cultural homogeneity in the town;
- There are no special agencies or government offices established in the towns to work with non-Lao people because the non-Lao do not exhibit differences which make them any more vulnerable or in need of special assistance than the Lao;
- Amongst the different ethnic groups there is high support for the subprojects that seek to improve, upgrade and rehabilitate urban infrastructure as key and important facilities for community access to services and employment opportunities. Consultations have ascertained broad community support for the subproject; and
- There is also both the willingness and capacity to participate in design, implementation, and monitoring of the investments. People commented on the benefits and positive impacts anticipated to result from subprojects, and have stated there are no constraints on the ability of people to participate in project benefits as a result of ethnicity or culture.

433. The objective of the ADB's IP safeguard is "...to design and implement projects in a way that fosters full respect for IPs' identity, dignity, human rights, livelihood systems, and cultural uniqueness as defined by IPs themselves so that they (i) receive culturally appropriate social and economic benefits, (ii) do not suffer adverse effects as a result of projects, and (iii) can participate actively in projects that affect them."

434. In addition, the CTDP will not involve any activities or investments that will:

- Provide for or allow commercial development of cultural resources or indigenous knowledge under the project;

- Provide for or allow commercial development of natural resources that would impact the livelihoods or cultural, ceremonial or spiritual use of land that would impact the identity or community;
- Provide for or allow restrictions in use of, or access to, protected areas and natural resources; or
- Require displacement from traditional or customary lands;

435. It is concluded from the consultations and social assessment undertaken that the policy is not triggered by the subprojects because they will not affect the dignity, human rights, livelihood systems, or culture of indigenous people. The CTDp will not adversely impact on, and is designed in such a way that will respect, the identity, dignity, human rights, livelihood systems or culture of the non-Lao ethnic groups in the town. Any negative impacts on non-Lao will be the same as for Lao, and these will be mitigated through implementation of the GAP, EMP and RP. The beneficiary communities are supportive of the subproject, and can see clear and direct benefits for them. The assessment confirms the conclusion that the categorization of the CTDp is 'C' which does not require preparation of an IP plan.

Appendices

Appendix 1 – Detailed Breakdown of GAP Costs

Component 1: Institutional Strengthening for Gender and Development

ID	Institutional Strengthening for Gender and Development	Basis	Rate (US\$)	No.	Total (US\$)
A.1	Material Preparation & Training Delivery (NGO or LWU)				46,530
A.1.1	Program design, management and delivery incl:	mt	8000	5.5	44,000
	Consultations with MPWT LWU Unit				
	Adapting materials				
	Work with LWUs for village training sessions				
	Training delivery (workshops etc)				
	Monitoring and reporting				
A.1.2	Logistics and support	mt	460	5.5	2530
A.2	EA/PMU/PIU Workshops and Training Participation				9,475
A.2.1	Transportation for trainers	day	150	15	2,250
A.2.2	SDAs for participants	day	10	30*5	1,500
A.2.3	Accommodation/per diem for trainers	day	3*25	18	1,350
A.2.4	Workshop venue hire	day	50	5	250
A.2.5	Meals and refreshments	pax/day	15	35*5	2,625
A.2.6	OTJ through PISC (incl. in PISC TA)				
A.2.7	Printing (handout material in kits) and stationery	pax/session	10	30*5	1,500
A.3	Subtotal				56,005
	Contingency (10%)				5,601
	TOTAL				61,606

Component 2: Empowerment of Women in Urban Community Development and Vocational Skills Training

ID	Empowerment for Women in Urban Community Development	Basis	Rate (US\$)	No.	Total (US\$)
A	Village Women's Leadership & Skills Training				92,700
A.1.1	LWU/NGO trainers (SDAs)	day	3*10*2*12	21	15,120
A.1.2	Transportation (incl. travel days)	day	150	30	4,500
A.1.3	Venue hire + refreshments	per	165	12*21	41,580
A.1.4	Issuance of certificates	per	20	315	6,300
A.1.5	Allowance for 15 female participants per village	day	15*2.5*2*12	21	25,200
B	Vocational Training - Livelihood & Employment Skills				140,940
B.1	Boutique/Spa/Massage				57,900
B.1.1	Venue hire, preparation & programming fee	LS	550		550
B.1.2	Trainers x 6	nth	250	6*6	9,000
B.1.3	Travel allowance for trainers	nth	45	6*6	1,620
B.1.4	Equipment and materials	LS	5,000		5,000
B.1.5	Stationery	LS	150		150
B.1.6	Allowance for participants	nth	55	126	41,580
B.2	Cooking				11,990
B.2.1	Venue hire, preparation & programming fee	LS	225		225
B.2.2	Trainers x 6	nth	250	2*6	3,000
B.2.3	Travel allowance for trainers	nth	45	2*6	540
B.2.4	Input food costs	LS	1,300		1,300
B.2.5	Equipment and materials	LS	2,500		2,500
B.2.6	Allowance for participants	nth	55	126	13,860
B.2.7	Stationery	LS	150		150
B.3	Masonry/Carpentry				16,500
B.3.1	Venue hire, preparation & programming fee	LS	150		150
B.3.2	Trainers x 6	nth	250	1*6	1,500
B.3.3	Travel allowance for trainers	nth	45	1*6	270
B.3.4	Equipment and materials	LS	7,500		7,500
B.3.5	Stationery	LS	150		150
B.3.6	Allowance for participants	nth	55	126	6,930
B.4	Tailoring/Weaving				29,075
B.4.1	Venue hire, preparation & programming fee	LS	225		225
B.4.2	Trainers x 6	nth	250	2*6	3,000
B.4.3	Travel allowance for trainers	nth	45	2*6	540
B.4.4	Equipment and materials	LS	7,800		7,800
B.4.5	Stationery	LS	150		150
B.4.6	Establish and support Weaving Committee (5 pax)	LS	3,500		3,500
B.4.7	Allowance for participants	nth	55	126	13,860
B.5	Electrical/Plumbing				25,475
B.5.1	Venue hire, preparation & programming fee	LS	225		225
B.5.2	Trainers x 5	nth	250	2*4	600
B.5.3	Travel allowance for trainers	nth	320	2	640
B.5.4	Equipment and materials	LS	10,000		10,000
B.5.5	Stationery	LS	150		150
B.5.6	Allowance for participants	nth	55	126	13,860
C	Literacy, Numeracy & Financial Management Skills Training				20,370
C.1	Staff and Activities				14,490
	Allowance for trainers (2 per village)	day	15	2*21	4,410
	Travel allowance for trainers	day	7.5	2*21	2,205
	Allowance for participants	pax/day	2.5	630	7,875
C.2	Supplies, Materials & Equipment				5,880
	Venue hire	unit	21	75	1,575
	Materials prep. & printing, A1 paper, whiteboards etc	unit	55	21	1,155
	Stationery for course participants	pax	5	630	3,150
C	Subtotal				254,010
	Contingency (10%)				25,401
D	TOTAL				279,411

Component 3: HIV and Trafficking Awareness and Prevention

ID	HIV/AIDS/STIs and Trafficking Awareness & Prevention	Basis	Rate (US\$)	No.	Total (US\$)
A	Contractor Awareness Training				28,020
A.1.1	IEC materials (incl. folder) - total	LS			4,250
A.1.2	STI test kits and STI treatment packs (2 per worker per year)	per	3.5	725*2*2	10,150
A.1.3	Establish health ed. post (incl. STIs/HIV) at camp ¹	per	350	3	1,050
A.1.4	Training sessions/presentations by NGO (incl. per diem)	per	1000	3*2*2	12,000
A.1.5	Condoms (boxes of 500)	per	95	3*2	570
B	Implement HIV/AIDS/STIs Awareness & Prevention in Project Area				113,790
A.3.1	Stipend for peer educators (2 per village: at least one female)	pax	300	21*2*4	50,400
A.3.2	Organize 4 TOT workshops for peer educators on HIV/AIDS prevention etc	per	750	4*3	9,000
A.3.3	Provide communities IEC materials etc	village	800	21	16,800
A.3.4	Organize workshops for villages on HIV/AIDS + trafficking prevention	per	150	21*2*3	18,900
A.3.5	Carry out awareness raising activities in secondary schools	year	280	8*3	6,720
A.3.6	Provide free condoms (1 x box 500) to clinics	per	95	21	1,995
A.3.7	Establish a condom revolving fund in each village (5 boxes/village)	per	95	21*5	9,975
A.4	NGO Technical Assistance				61,000
A.4.1	KAPB surveys (incl. survey teams + vehicle hire)	LS	10,000	1	10,000
A.4.2	Program design, management and delivery incl:	year	20,000	2	40000
	Adapting CDCP-2 and ILO workplace materials (NGO)				
	Monitoring and support (TOT) to peer educators				
	Carry out HIV/AIDS prevention campaigns in each village				
	Monitoring and reporting				
A.4.3	Logistics and support	year	5500	2	11000
A.5	Subtotal				202,810
	Contingency (10%)				20,281
	TOTAL				223,091

Component 4: Sanitation, Health and Hygiene Campaign

ID	Sanitation, Health, Hygiene (SHH) incl. SWM & Environment Awareness	Basis	Rate (US\$)	No.	Total (US\$)
C.1	Implement SHH Awareness Campaign				22,600
C.1.1	Organize workshops/sessions for villages	per	150	13*2*2	3,900
C.1.2	Provide communities IEC materials etc	village	550	13	7,150
C.1.3	Carry out awareness raising activities in schools	village	350	13	4,550
C.1.4	"Healthy/Green" village competition	LS	3500	2	7,000
C.2	NGO Technical Assistance				30,500
C.2.1	Program design, management and delivery incl:	LS	25,000	1	25000
	Adapting SNV produced materials				
	Carry out campaigns in each village				
	Monitoring and reporting				
C.2.3	Logistics and support	LS	5500	1	5500
C.3	Subtotal				53,100
	Contingency (10%)				5,310
	TOTAL				58,410

Component 5: Road Safety Campaign

ID	Road and Traffic Safety Campaign	Basis	Rate (US\$)	No.	Total (US\$)
D.1	Implement Safety Awareness Campaign				26,100
D.1.1	Organize workshops/sessions for villages	per	150	21*2	6,300
D.1.2	Provide communities IEC materials etc	village	550	21	11,550
D.1.3	Carry out awareness raising activities in secondary schools	school	750	9	6,750
D.1.4	Carry out awareness raising with bus/truck drivers	LS	1500	1	1,500
D.2	NGO Technical Assistance				30,500
D.2.1	Program design, management and delivery incl:	LS	25,000	1	25000
	Adapting available materials				
	Liaise/coordinate with Police				
	Work with transport operators (bus and truck services)				
	Carry out campaigns in each village and schools				
	Monitoring and reporting				
D.2.2	Logistics and support	LS	5500	1	5500
D.3	Subtotal				56,600
	Contingency (10%)				5,660
	TOTAL				62,260